

# Optimizing the Digitization of Church Records for St. Mary's Parish in Panama



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# Optimizing the Digitization of Church Records for St. Mary's Parish in Panama

An Interactive Qualifying Project  
Submitted to the Faculty of  
WORCESTER POLYTECHNIC INSTITUTE  
In partial fulfillment of the requirements for the  
Degree of Bachelor of Science

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October 13th, 2021

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## **Abstract**

St. Mary's Parish has physical records that need to be digitized into an existing MySQL database to prevent the loss of important information for the community. Our goal is to create a bulk import function that allows the church to import CSV files containing this important information and upload the images associated with the information. This was achieved by creating PHP code files that formed the import and upload button on the database homepage and linked the connection between the code and the MySQL database. In conclusion, we created an import and upload function that enables the church to preserve their records in a MySQL database and allow them to print out the info onto a certificate. To further improve the project, adding security, reformatting the certificate printout, and fixing the search function from last year's team would be extremely beneficial for St. Mary's Parish.

## **Acknowledgments**

The team would like to thank all the organizations and individuals who worked together to make this project a success. Firstly, we would like to thank St. Mary's Parish for the opportunity to work on this project and all the support given during its journey by members of the church such as Val Guerrero. Also, all of this would not have been possible without the support of Footprint Possibilities and Rick Montanari. Lastly, we would like to thank our advisors Prof. Jefferson Sphar and Prof. James Chiarelli who guided our project from conception through implementation and completion.

## Executive Summary

In Panama, historical records and archives have often been stored by the Catholic Church to preserve their history and events. The Church served an important role in both Panama's politics, and the lives of Panamanian citizens. Since the church acted as a quasi-government during Panama's history, many Parishes hold historical archives and documents dating from even before Panama's independence. This project focuses on the archives of Saint Mary's Parish in Panama City, Panama. These records are currently stored in record books sorted with an index system. The records are both tedious to search through as well as prone to destruction by natural disaster and aging. Preserving these documents is of utmost importance both due to their historical significance, as well as their value as personal records to the Church's community.

Therefore, this project's overarching goal is to create and improve a digital database for these records to be stored and managed. The project practically has no budget, so we cannot simply buy a database made by a third party. Last year's 2020 IQP team created a digital database capable of importing and storing individual records of all five types: baptisms, communions, marriages, confirmations, and deaths. The database must also link each record entry to the corresponding photograph of the physical record. We have decided that the best course of action for making a functional database is to continue the work of the 2020 IQP team by adding additional features to the database they have already created.

The Parish currently holds around 100,000 records, and more will be added as time passes. Inputting all records individually would take far too much time and labor to be efficient. Our main goal was to develop a mass import function that can input hundreds or thousands of records into the database at once. In addition, some features of the database, such as the search function needed to be fixed or tweaked. We made these changes on behalf of our sponsor, Rick

from Footprint Possibilities, who worked closely with us to make sure the database was working as intended.

The database utilizes the MySQL program, which uses Structured Query Language (SQL) to create a server and client capable of storing information in a database form. MySQL was the ideal choice of program for the database, due to the host-based security system and encrypted passwords; the database contains many personal records that should not be leaked to the public, so a program with security features like MySQL is necessary. The XAMPP program is an open-source cross platform web server solution stack package that consists of the Apache HTTP server and the PHP and Perl programming languages, was also used for the creation of the database.

Our first step towards our goals was installing the digital database on our personal computers. This allowed us to verify the database was in working order, as well as edit the files directly on our computers in order to add the features we needed. We did this by following the manual the 2020 IQP team left behind, which also allowed us to identify any mistakes and errors in the installation section of the manual. We also did some research into other similar projects to ours, such as the Ukrainian History and Education Center and the Martinsville Baptist Church Collection.

The mass import function was the most important part of this project. We needed to be able to import records in the database to digitally store them. Volunteers will transcribe data by hand from the record books onto an Excel document that can be exported as a CSV file. Each of the five types of record had an Excel template created for the purpose of entering each field. For example, baptisms have fields like “Date of Birth”, “Father Name”, “Book”, etc. The mass import function was coded in PHP but had to be adjusted to fit each of the five different record types.

This import function also links each record to its respective image using a universal unique identifier (UUID) and gives the user an opportunity to see the original record image when viewing each record. Viewing the original record image may be important for verifying the accuracy of the records. Since every record must be associated with a unique picture, every record has a separate associated picture attached to it. For example, if a page in the record book had 10 people's information in it, the database would have 10 copies of that picture to ensure they can all be matched to their respective row. Using the database's search function, the user may find any picture associated with a record by entering the record's UUID.

Once a record has been found, the user can select it to provide one of two outputs. The first output is the ability to display the image associated with the record and print it if necessary. The second output option is a certificate printout. This option will display a template with data from the record, also with an option to print. A certificate printout is particularly useful for a client who wishes to verify a historical or personal event.

In order to help the administrators and church staff use the database effectively, we needed to utilize and improve the manual the 2020 IQP team provided us. The manual is split into two parts: one of which covers general usage of the database, while the other covers administrative usage. The general section of the database allows the reader to insert and search for a record in the database, as well as mass import data and print out a record certificate. The administrative section teaches the reader to install the software, run a backup, restore from a backup, and delete a record. As we worked on the various parts of the database, we kept our manual up to date with additional functions we added. The manual also contained several errors in its steps, so we had to fix any errors we came across in processes such as installation.

Saint Mary's Parish is not the only church that may want to archive similar records to ours. Our sponsor requested that we make a generic version of the database so that he may use it for other churches or organizations. We accomplished this by going into each of the PHPfiles and taking note of every appearance of St. Mary's logo and mention of their name. We added each of these mentions to the manual as well as instructions on how to edit the files for future users to change the database to fit their needs.

Our team accomplished all the initial tasks set before us by our sponsor, but the database could still be improved. We managed to add a bulk import and image import function, developed a way to make the database generic, fixed the errors in the manual, added a way to backup the data, and fixed several small errors in the database. If a future team is tasked with completing the database, they would need to add additional security to the database and create a completely generic version of the database.



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## 1. Introduction

Panama's history has been recorded for several centuries before the country gained independence. The major events in people's lives were transcribed into books that would later serve as certificates or documents that show proof of an event. Due to the Catholic Church's involvement in Southern and Central American communities, events in the new world were especially recorded by the church. The Catholic Church sought to evangelize and assimilate the people in Central and South America, so this type of conversion was often practiced in order to make colonization easier. The same strategy was used in Africa, mainly by the English, while in South America, the Spanish were the colonizers. The Spanish church recorded data by hand, such as marriage and baptisms for centuries. The record books are very old with some books in semi-good condition and others are in poor condition, making them very fragile. Regardless of their condition, the data in these books are very important to the people of Panama of whom the records concern and to the community.

Saint Mary's Parish is the Episcopal See of the Archdiocese of Panama. It had government support but was managed privately during colonial rule. The Parish kept historical records from the years when it was a quasi-government. Some records date back to before the Republic of Panama and the Parish continues to record events in its books. The records are all handwritten, filed and stored in the offices of the Parish. In case of natural disaster or a disaster of any kind, it is important that these historical records are not lost or damaged. The Parish receives about 2000 registrations a day (V. Guerrero, personal communications, May 6, 2020) and they have about 100,000 records total in their archives.



The historical records in those 38 books are very important to the history of the nation and the Parish. Books fade, become unreadable, and get torn pages, and when the books are over 100 years old, they become very fragile. Records hold truths that historians need to piece together themes and trends of a certain time-period to determine how people lived in early Panamanian life. Without these records, the past will become indeterminate, with no concrete way to find out what life was like. Therefore, the Parish aims to digitize and preserve the history in those records. This will be important in case of catastrophe, natural disaster and will also make trying to find a record without destroying historical artifacts much easier. Our aim for this project was to digitally capture new and old pages of the records and back them up in a database.

The Church used old archiving methods such as index cards to organize their records. The index cards contained information about the book, page number, and the names of the individuals in the record. This type of filing is not sufficient in the modern world where information is created and needed quickly in vast amounts. One of the WPI's team's involved in the previous years created a Digital Archive for St. Mary's to replace the index card system. This was after an organization helped the Parish to digitize their records. Unfortunately, the organization did not leave behind their work for the Parish's use. Until the Digital Archive is fully complete, the index cards will be the main source of organization for the Parish. This slows down the efficiency of the workers in the Parish as it takes immense amounts of time to find records.

The previous IQP team that assisted the Parish in digitizing their historical records, established a MySQL database to capture and store the pages of the records, especially new records. However, the team was only able to upload the images of the records one at a time.

Their goal was to structure the database, start the capture, demonstrate, and then train and hand turn over their work to the Parish to continue from where they ended. The database that the previous team came up with can be downloaded on our own laptops, so that we will have access to it as well and try to make it more efficient. As of now, the database can capture new data alongside an excel database that will capture an image of the 38 books. This effort will result in tens of thousands of records being imaged. This is where our team came in to continue the work on the database.

The team goal for our project was to improve and adapt the SQL database to receive and store huge amounts of data from Excel, and with it a photo of each archived page. Doing this will complete the Parish's request for assistance from our sponsor, Footprint Possibilities. It is our task to advance the SQL database solution and provide a completed laptop-based database. Parish workers will use the laptop-based database to provide forward capture of individual records and backwards bulk import of historical records. These will make the records easily accessible, and the records can never be lost due to catastrophe, because the files will be backed up. We will have help from Footprint Possibilities, who will provide manpower to help us manage putting data into the database. Last year's team will also be available if we need extra assistance.

## **2. Background**

### **Introduction**

Panama's Catholic church holds a lot of cultural significance for its citizens. Spanish colonizers introduced the church to the populace and converted the native population to Catholicism. Since then, the Church has held a key role in the lives and culture of the people of Panama. One important job of the church is to record and hold archives of various events in its members' lives. Our project revolves around creating a functioning digital database to store these records. Last year's 2020 IQP team developed a database capable of importing and storing individual records. Our team was tasked by Rick from Footprint Possibilities to develop a way to import large amounts of data at once into the database.

### **2.1 The Role of the Catholic Church in Panama**

Since the colonization of the Americas, The Roman Catholic Church has always had a political and cultural significance to the people of Panama. As the Spanish explored and settled on the land that would come to be known as Panama, the Church was heavily involved; a priest would join each expedition to advise the leader. As the colonizers established settlements across Panama, a bishop was sent directly from the Spanish king to act as a vice-governor, indicating the closeness between the Church and government (Library of Congress). In the 16th century, Jesuit missionaries began to convert the native population to Catholicism. The populace praised native Panamanian missionaries such as Agustin Hurtado, whose words were seen as gospel.

The Church has historically had an important role in advocating for the rights of Panamanian citizens. For example, during the first successful Panamanian independence movement, the Church played an essential part in advocating for separation from Spain,

something most other Latin American countries had already achieved, with bishop José Higinio Durán holding a key role in the movement. When Panama achieved independence in 1821, the new constitution granted freedom of religion and press to all citizens. In the early twentieth century, the Church functioned similarly to a charity with no income other than donations. They made a multitude of charitable foundations, most of which focused on education. (Panama, the Catholic Church in)

By the 1960's and 1970's, the Church lacked the political power it once held, mostly due to weak organization and its dependency on foreign clergy, who made up about 60% of the nation's priests. The Church, however, increased its advocacy for social issues in the nation. The bishops who led the church strongly encouraged the movement for Panamanian sovereignty over the canal region and pushed the ratification of the Panama Canal treaties. In addition, Church leaders called for a return to democracy and elected civilian rule. When tensions rose in 1987 preceding the American invasion Operation Just Cause, the Church continued to criticize the government. Although the Church never officially called for any reforms in the government, they opted to advocate for open dialogue between the government and its opposition. Certain bishops were not satisfied with the Church's moderate approach and chose to write their own letter where they denounced the government's actions and advocated for changes in the military. (Library of Congress)

## **2.2 The History of Cathedral Basilica of St Mary in Panama and its Archives**

The Cathedral Basilica of St. Mary can be found in old Panama City, Panama. The Cathedral was finished in 1796 after the building process started in 1688. The Parish itself predates the building, making it a significant part of Panama's history (Historic Churches &

Cathedrals in Panama). St. Mary's Parish holds archives of information from the lives of the people that have been involved in the church over the centuries. These archives hold information on baptisms, deaths, communions, marriages, and confirmations. These events and dates are important to the members of the Parish and the community. Currently, all of the Parish's archives are hand-written in books dating back to 1810. This means the Parish has over 200 years of documentation, and some of the archives are written in Latin. Until now, if someone wanted information from one of the archives, a staff member had to look up the name in a filing cabinet system where they would match the correct name to the corresponding index card. The index card would inform the staff member about the location of the book with the requested record (V. Guerrero, personal communications, 2020).

With the amount of information the Parish controls, this system is inefficient and potentially dangerous, as many of the books are fragile due to their age. If any of the books became damaged, it could mean the permanent loss of information for the Parish. The purpose of an archive is to preserve unique and collectible documents, serve as memory institutions for a culture, provide official records for members of the Parish, and support both scholarly and personal research (The Societal Role of Archives). If an archive becomes susceptible to losing any documents due to age or other natural disasters, it would fail at several of its main objectives. With approximately 200 years of information, it allows people to gather accurate data on the past and gives Panamanians a reference to look back at and see the culture they have come from. This raises the importance of protecting all of the archives in the Parish because, if any of them are destroyed or lost, it results in the permanent loss of Panama's history. The government records of these topics or events were not as detailed or extensive as the records kept by the

church. Therefore, if these records are lost to the church, then they are lost to Panama and the world.

### **2.3 The Digitization of St. Mary's Parish Archives**

St. Mary's Parish's challenge is the preservation of their sacramental records and historical books. These documents and records date back to 1810 and it is very important that they are not lost or destroyed. The records are very old and can be damaged if handled incorrectly, so caution must be exercised while digitizing the physical documents. Many other churches have the same problem when they are trying to preserve their historical documents. St. Mary's Parish partnered with Footprint Possibilities to find a solution to digitizing the physical records. WPI sent a team of students in 2020 to help with the process as part of an Interactive Qualifying Project (IQP). Last year, before the team went in for the project, there was no viable way for the church to store and manage all the images and records they have. Erik Wegge, Nathan Reed and Ferris Florman made a MySQL database for the church that enabled St. Mary's Parish to digitally store their records and images.

### **2.4 What The 2020 Team accomplished and Technology Used**

Last year, the 2020 WPI team's goal was to create a database that is locally hosted on the Parish computer where staff members can upload information from the captured images. They accomplished this by using a MySQL database. MySQL is an Oracle-backed, open source relational database management system (RDBMS) based on Structured Query Language (SQL). It is based on a client-server model. The core of MySQL is the MySQL server, which handles all of the database instructions (or commands). MySQL runs on virtually all platforms, including

Linux, UNIX and Windows. It is mostly used for web applications and online publishing. The 2020 team also utilized PHP as their object-oriented scripting language. MySQL uses an access privilege and encrypted password system that enables host-based verification for the sake of security and privacy. This is especially important because most of the documents contain sensitive and private information about people and their lives. The 2020 WPI team created a MySQL database that will store information from the electronically captured images of the records. This is done by one volunteer taking a picture of the original document, and then they write down the information from the document, after, they submit it into the database one person at a time, and finally, upload the image once all the data from it has been entered into the database.

The database allows the church to add and then manage all of the data that has been entered by the volunteers. The program also contains a backup option to save the work that has been done as well as a delete option if one of the documents needs to be removed. The staff at St. Mary's Parish, with the help of volunteers, are able to take pictures of the documents using a high quality camera and manually put the data into the archival database. The 2020 team's database works successfully, but still needs improvement and an efficient way to electronically import many captured documents and information quickly.

## **2.5 Sponsor Introduction**

Our sponsors are the St Mary's Parish church and Footprint Possibilities. Footprint Possibilities is a 501c3, private charity, headquartered in Saint Petersburg, FL, USA. Their mission includes organizing and seeking funding for communities of need, both in Panama and other international points of interest. The goal is to work with Footprint Possibilities to help St.

Mary's Parish improve the existing MySQL database so they can electronically capture the historical records efficiently. The church's staff and volunteers are available to help and must be trained on how to operate the database. For our project, we will be working with Footprint Possibilities, to help the church digitize their important historical documents.



### **3. Methodology**

#### **Introduction**

Our goal was to improve upon the current SQL database system that was developed by last year's IQP team for Saint Mary's Parish to effectively digitize important historical documents. These documents contain the history of each Parish member's involvement in the church, including baptisms, marriages, births, confirmations, and deaths. They can be a useful resource to family members or anyone who wants to learn the history of St. Mary's Parish, and even Panama City or Panama itself. The SQL database at the start of the project was able to hold information of a given person including the dates of their baptism, death, and other requested events as well as a picture of the entry from the original records book. With St. Mary's archive of recorded history of 38 books reaching back to 1810, locating information from the original records by hand was a tedious process. The 2020 IQP team worked with Saint Mary's Parish to begin digitizing these records, improving access and making the process of locating records easier. However, in their database, only one person's information can be entered at a time, while the original records can contain up to 10 people per page and hundreds of pages per book for the 38 books they currently have. That means entering these hundreds of thousands of records would have to be done one-by-one. Completing the database will significantly speed up the process of finding records in the Parish. With only the database from the 2020 IQP team, it would be a long process for all of the information in the archive to be converted and stored digitally.

By modifying the initial database, we could add a more efficient way of storing data by including a 'Bulk Import' process. This process would allow hundreds or thousands of records to be imported at once. The team must also modify the database so that a search will pull up the

person's information and a picture of the original documentation, as well as a way to print the information and an official certificate from the Parish. This chapter will discuss similar projects to the digitizing of the Parish archives, the coding language necessary to accomplish our goals, and the specifics of the situation at St. Mary's, including any constraints that are involved. The overall goal for the project is to modify the existing SQL database so that it can cover all of the functions that St. Mary's needs. This will be done by:

- Researching information needed for programming and SQL databases
- Getting information from St. Mary's about what they need their database to accomplish
- Researching how others have digitized old documentation
- Programming the database to fit the needs of the Parish

### **3.1 Research on Programming and SQL Databases**

St. Mary's Parish in Panama uses an SQL database to store and manage their members' info such as baptisms, births, etc. The Structured Query Language (SQL) is the main programming language designed to manage data stored in database systems. The initial database in St. Mary's Parish from the 2020 IQP team uses a third-party software called XAMPP. It is an open-source cross platform web server solution stack package that consists of the Apache HTTP server and the PHP and Perl programming languages. The IQP team last year wrote the code for the database using these downloadable, free, and open source softwares. The database needed to input a record from their digitized documents, have a user-friendly interface for English and Spanish and contain a search tool to find specific documents within the database. The team also created a backup and restore function for the database and a way to print out certificates containing the information the client is requesting.

### **3.1.1 Database Installation**

The 2020 WPI team created an installation manual<sup>1</sup> for St. Mary's Parish and other organizations that want to digitize their records and store them in a database. The installation manual allowed us to install the database. It gave steps to download XAMPP and what to do afterwards with PHP and MySQL. However, it was necessary to contact Erik Wegge because some parts of the manual were unclear or could be improved. The next steps were to note down where the manual is unclear. We then added more steps to ensure the client following the manual will not get confused. We also needed to add a section in the manual that covers how to install the required software on macOS. There were difficulties installing the database on a macOS system but with the help of Erik, we were able to find a solution to the problem. The steps were different, and the manual was revised so that the included steps will help any organization that wants to use macOS as their operating system.

### **3.1.2 Import/Export Programming Function**

One of our contacts in Panama is Rick Montanari, the Vice President of the NGO Footprint Possibilities. We had several meetings with him, and he explained what the 2020 team did last year and the problems they were currently having with the system. He requested that we add a function to the existing database code that allows administrators at St. Mary's Parish to be able to import and export the church documents in bulk. The administrator will be able to distribute photographs of the original documents to volunteers who will transcribe information from the image into Excel. Then, the administrator will be able to import all those revised records into the database with the newly added images and data. To add this specific function into the existing code, we had to research the programming languages used that created the

<sup>1</sup> To view User Manual see Appendix A, to view Spanish version see Appendix B

database, including PHP, SQL and HTML programming languages. HTML isn't technically a programming language, but it was necessary to construct the browser display where the database is shown, as it provides the user with an interface and makes the database easier to access. To understand the programming languages used, we learned from online tutorials and videos, and conducted research into how to write the requested function. Contacting members of the Parish helped us write a function that will correctly do what they want it to do.

### **3.2 St. Mary's Situation**

To better understand where the Parish stood in the process of archiving their historical records, the team needed to speak to the men and women that work in the Parish. Our Sponsor Rick Montanari mentioned that there is a woman who oversees inputting all the new records into the current database that they have, (courtesy of the previous IQP team's work). Our Advisors, James A. Chiarelli, and Jefferson A. Sphar advised us to get any information the team could from the father and one of the ministers of the Parish. Their non-technical view of how the database could be used will help the team to add new features to the existing database.

The secretary at the Parish was important to the development of the old database. She oversees importing all the data into the database and has been doing so by using the program last year's 2020 IQP team made. Once the new bulk import and export function is working, she will be crucial to the project, and we must make sure she understands how to use new functions at their full capability. Once she gets used to the updated functions, Yamileth should be able to help the team fine tune any new issues that arise.

Currently, due to the efforts of the previous team, the Parish can now store/input new records as they come in. However, the older records, from centuries ago, are fragile and one

cannot input the data from these thousands of pages one at a time. Therefore, the Parish needs an option to import large amounts of data into the database. The team was told that the Parish has the volunteers to do the grunt work of copying data into Excel one by one. In actuality, they have finished copying data from some of these books by capturing the pages and manually typing all the necessary information into Excel. After seeing the amount of energy that goes into digitizing these records, the team realized how important this project is to the Parish.

### **3.2.1 Project Constraints**

Through the initial contact the team had with Rick, the team got a sense of the constraints regarding the project. The budget was very low, otherwise the Parish could have purchased premade database to use in digitizing their records. This means that the team had to work with the database that last year's team created and add a function to mass import/export records, as we could not simply purchase a new database.

In the meeting with Val Guerrero, the team learned that there were many problems with the old books. Val said that the Parish has over 38 old books and each book contains about 100 pages that need to be image captured. It was obvious to the team that the task of capturing images was daunting when he said "He completado tres libros, y estoy en el proceso del libro cuatro". This meant that he was able to image-capture three books and he was starting to capture a fourth book. This told the team that Saint Mary's Parish needs a working batch import as soon as possible or the work they are doing will all be in vain.

### **3.3 Researching Similar Projects**

Since digital records are much more convenient than physical records for a variety of reasons, many other Parishes and organizations have done similar projects to ours. This is not the only research into databases we've conducted; we reached out to professionals working in the database field who know more about databases and can help with the development of a function for batch imports from Excel.

#### **3.3.1 Ukrainian History and Education Center**

One similar project has been conducted by the Ukrainian History and Education Center to import church records of Ukrainian Americans into a digital database. This project was uniquely important because the United States government did not start keeping civil records until the twentieth century. In addition, many of these government records butchered foreign names, meaning the only existing records of many Ukrainian Americans' ancestry are Parish records. Not only did this project allow Ukrainian Americans to look back into their history, it also provided a way for historians to catalogue past events and gave a glimpse into the immigrants' culture and heritage.

This project shares multiple similarities and differences. Similarly, the effort to photograph the records and assign metadata was done by volunteers. The project also used Excel and a batch import function to transfer the records into a database. However, the church's policy on public viewership of the records was different. While we prioritize privacy and will have virtually no public access and all information from our database, the Ukrainian History and Education center provides two levels of access. A basic summary of records is available through their website, but details can only be accessed through inquiry (8).

### **3.3.2 Martinsville Baptist Church Collection**

The Martinsville Baptist Church (MBC) also digitized their historical church records. The main focus of the paper about digitization is the regulations surrounding digitized records. Although no official regulations are in place, several sets of guidelines involving things such as image PPI, greyscale and coloring, and image format exist. We looked further into these guidelines in the interest of image quality and data storage. The MBC digitization project was also concerned with which records should be digitized and which ones shouldn't, as not every historically significant document could be entered due to limited space. Unlike both our project and the Ukrainian History and Education Center's project, these records are fully available online for anyone to access (9).

### **3.4 Summary**

We created a way to bulk import and export the information, updated the user manual that is in use, and provided an output of a printed certificate. We modified the MySQL database that was made for the Parish last year and added the new functions St. Mary's Parish needed. This allows for an easy transition with what the Parish has already done in the database as well as a consistency between the progress the 2020 IQP team made and the progression the team wants to further for the database.

## **4. Results**

### **Introduction**

With a solid understanding on how the 2020 WPI team's database works, we were ready to start moving forward with our plans. Our first order of business was to develop a bulk import function for the database. We accomplished this using the PHP programming language to code a function that would import all CSV file data into the correct database table (Refer to Figure 1 to see the import browser). Once we finished our import function, we needed to figure out how to link the image with the data. By using UUIDs, we were able to match the correct photographs of the original documents to the corresponding rows in the database. Last, we needed to make the database usable to the church by updating and fixing the database manual the 2020 team created, and we made the database generic for other potential parties that may want to use it.

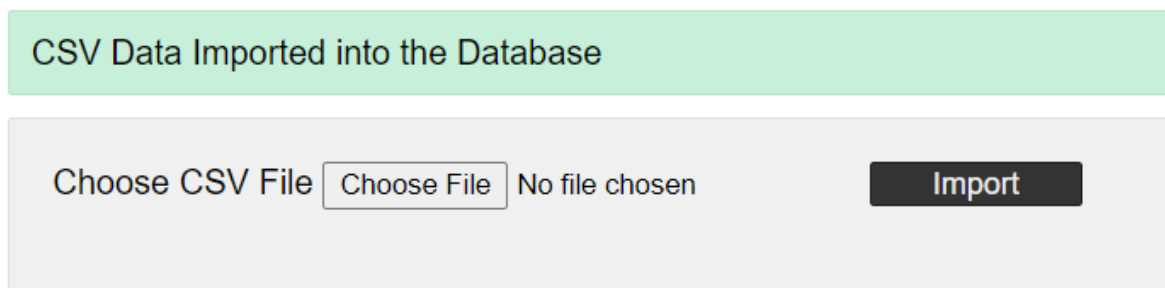
### **4.1 Bulk Import Function**

There are five tables in the MySQL database that correspond to each type of data that the church documents. There are baptisms, communions, confirmations, deaths and marriages and each row of data is linked to a picture with said information on it. Five different Excel templates were created for each table with their respective fields of data (Refer to Figure 2 for an example of the baptism template). A function that can import each table along with its respective images was created for the church. The data is recorded on an Excel file and obtained from the church's physical records. For example, baptisms have many fields like "Date of Birth", "Father Name, "Book", etc. The file will be filled out by volunteers and then can be imported by an administrator using the import function that was created. To import the Excel file, it first needs to be converted into CSV file format. This can be done by exporting the Excel file as a .csv file



and it will download onto your device. The import function only takes in a .csv file and imports the data into the database. Refer to figure 3 which gives a visual example of how the process works. The import function was created using PHP as the programming language. The structure of the data fields for baptisms had to be coded so it can match the structure that exists in the MySQL database. So, a function for baptism had to be created to confirm that structure and link it to the database. The same must be done to the other tables so when it is imported, the data is correctly placed in the database. When the data is imported, the images associated with the data will automatically link to its respective record using a universal unique identifier. The import function asks the user to select a .csv file and prompts a message if the data was successfully imported or not.

## Import CSV file into Mysql using PHP



CSV Data Imported into the Database

Choose CSV File  No file chosen

Figure 1: The CSV File Import Function Button

Baptism Template .xlsx

File Edit View Insert Format Data Tools Help Last edit was yesterday at 9:19 PM

100% \$ % .0 .00 123 Calibri 11 B I U A

C10 fx | 246

	F	G	H	I	J	K	L	M	N	O	P
	Page	Record	First Surname	Second Surname	First Name	Second Name	Suffix	Cedula	Date of Birth	Place of Birth	Date of event
2	1	1	DAVENPORT	NONE	EMILIE	DANIELLE					27-Oct-79
3	1	2	HOYTE	NONE	GIANCARLO	EDUARDO					14-Oct-79
4	1	3	DE GRACIA	NONE	JORGE	LUIS					20-Oct-79
5	1	4	DAME	NONE	LINDA	MARIA					4-Nov-79
6	1	5	HAUSER	NONE	JANELLE	MONIQUE					11-Nov-79
7	1	6	KEITH III	NONE	JOHN	WILLIAM					18-Nov-79
8	1	7	BEDSWORTH	NONE	JAMES	BEDSWORTH					1-Dec-79
9	1	8	MORRISSEY	NONE	SEAN	EDWARD					2-Dec-79
10	1	9	GRAHAN	NONE	RACHEL	MARGARET					8-Dec-79
11	1	10	RODRIGUEZ	NONE	NAPOLEON	ALFREDO					13-Dec-79
12	1	1	SANCHEZ	CASTILLERO	DIEGO	ALEJANDRO					26-Jan-08
13	1	2	LEGENDRE	VENTURA	JEAN	MICHAEL					22-Mar-08
14	1	3	LANUZA	NONE	ALEKSANDER	ANTOINE					13-Apr-08
15	1	4	LANUZA	NONE	NIKOLE	MARIE					13-Apr-08
16	1	5	GRILLO	JARAMILLO	MONICA	MARIA					31-Mar-80
17	1	6	APPLE	NONE	LOGAN	ALEXANDER					11-May-08
18	1	7	APPLE	NONE	KATHRYN	NERYS					11-May-08
19	1	8	MORENO	ACHURRA	LEIDY	BETT					31-May-08
20	2	1	NARANJO	NONE	ROSA	NONE					21-Nov-93
21	2	2	RIVERA	NONE	NADILI	NONE					21-Nov-93
22	2	3	MAYLIN	NONE	MARILYN	NONE					21-Nov-93
23	2	4	CABAL	NONE	TANIA	NONE					21-Nov-93
24	2	5	ACOSTA	NONE	GILDA	NONE					21-Nov-93
25	2	6	CABALLERO	NONE	DAYSI	NONE					21-Nov-93
26	2	7	RENTERIA	NONE	DIGMORY	NONE					21-Nov-93
27	2	8	GONZALEZ	NONE	DAVID	NONE					21-Nov-93
28	2	9	GONZALEZ	NONE	JAVIER	NONE					21-Nov-93

Figure 2: An Example of the Baptism Template

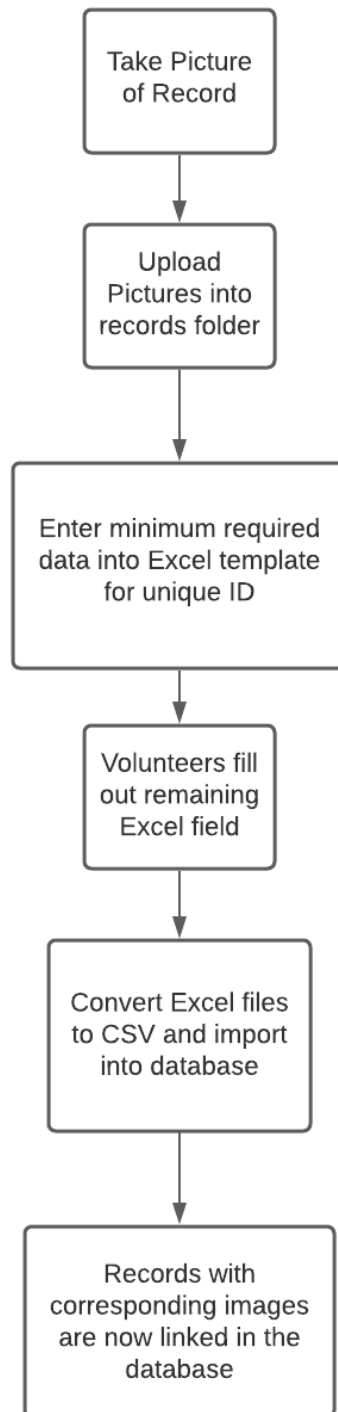


Figure 3: Flowchart Example of How the Bulk Import Function Works

## **4.2 Creation of Import Function**

The database is made up of five MySQL tables as mentioned above that are manipulated by several PHP files. The PHP files control the data in the table and what to do with it. For example, the bulk import function created above is associated with multiple PHP files that allows it to work correctly. We created two PHP files called “DataSource.php” and “index.php” that create the connection between the MySQL database and the PHP code. The DataSource file is responsible for the connection to the database while the index file calls on the DataSource file for the connection and will serve as the homepage for the code. It connects everything together and makes sure the files are communicating with each other. There are five PHP files that correspond to each table in the database. Each PHP file has the structure required for its type of data. For example, the baptism PHP file has all the fields it needs in the code to make sure the import function works for that corresponding table. However, the heart of the import function script is in the “upload\_query.php” file. This file is very important since it requests data for each table in the database. Without this file, data won’t be able to be imported into the MySQL database. The index file or homepage for the code calls on the PHP files we created to make sure the data that is imported is populated correctly into the database.

### **4.2.1 Certificate Printout**

The St. Mary Parish database homepage allows the user to search for records after it has been imported and its image is uploaded in the “records” folder. Each record has a unique ID that they can use to find any specific record they want. The user can also search using name and dates, but it is ideal to use the records’ ID to search for them. Once a record has been found, the user can select it to provide one of two outputs. The first output is the ability to display the image

associated with the record and print it if necessary. This allows the Parish to verify the information on the record using the image to any client who requests verification. The second output option is a certificate printout. If selected, a certificate template with the record information will be displayed. It will have all the information available from the database and have an option to print. This is especially important since clients often request a certificate of the event to verify it happened. Both outputs help the Parish verify and provide information to the client about the event.

### **4.3 Photographs of Original Data**

When we spoke with Footprint Possibilities at the beginning of the project, one of the main goals for this year's final product was to make the database pull up the original document when the user searches the database. This would allow the user to verify that all the information in the database is accurate based on the primary source of information. Having these pictures also preserves the exact documentation for all future use. To ensure that the correct image will appear when a person's information is searched, each picture must be linked to its corresponding data. The original books can have up to 10 or more entries of information per page. With this format, it creates some conflict when digitizing since one picture of entries must be used for multiple lines of data. Our team's initial hope was to include one copy of each picture and link it to all the data entries in the database that are relevant to the copy. However, after some further investigation it was determined that an easier and equally as effective solution would be to have a copy of the picture for every data entry that required it. For example, if a page in the book had 10 people's information on it, the database would have 10 copies of that picture to ensure they can all be matched.

### **4.3.1 Universal Unique Identifiers**

Once all the copies of the original documentation are made, they then need to be connected to the data to make the search function work. This can be accomplished by using Universal Unique Identifiers (UUIDs) for each copy. By giving every picture a UUID, that same UUID can be placed in a row of the database which would allow users to know what picture the source for that data input is. If the user wanted to manually search all the photos to find the matching UUID they could do so, but the end goal is to make it so that the search done by the user will pull up that picture on the screen. Using the pictures that Rick provided our team, the existing picture names are specific enough to use as the UUID for the pictures. In the database, these names will be used to match the correct names to the pictures by including the UUID in the corresponding row. Then in the code, all that is needed is to add .jpeg to the end of the UUID, since the picture is already on the computer and is known by its name + .jpeg. With the jpeg picture name, the image can be pulled up in the database whenever the row is searched by the user.

### **4.3.2 Creation of Image Upload Function**

There is also a file for uploading images into a “records” folder so the function can merge the data with its associated image. The file “fileUploadScript.php” is responsible for uploading multiple images of the church records so it can be merged. Once it is uploaded, it can be displayed with its associated record. If one image is associated with multiple records, the image will still merge to its respective record because of the image’s unique identifier. An HTML file was also made to create a browser display where you can import and upload the data and images. This browser display has buttons that start the import and upload process. For convenience, we

also added a home button to return to the St. Mary's Parish database homepage. Now, whenever someone's information is searched in the database, at the bottom of the screen there is an option asking the user if they would like to see the original documentation. When the user selects this option, it will redirect to a new page that pulls up the picture matching the data using the UUID that is connected.

#### **4.4 Manual**

The 2020 IQP team created a user manual to help the Parish download and use the database. They split the manual into two different sections. The section for general use will aid our goal in making the database generic, while the other section is for administrative use of the database. In the general section, the reader will understand how to insert and search for a record in the database. When the project is complete, the database should be able to upload more than one record into the database at a time and print a certificate of any record the user would request. In the administration section of the manual, administrators will learn how to install the software, run a backup, restore from a backup, and delete a record. The 2020 team added the delete option for administrative purposes only, so that records cannot be easily deleted. This way, in case original copies get lost, deleting a record won't be easy.

In Figure 4 and Figure 5, the images are a snippet of the manual that the 2020 IQP team created and its table of contents. Using the table of contents, the reader can easily skip ahead to the parts of the manual they need help with. The table of contents will be updated to include everything that our team is working on, this includes how to bulk import and export data into the updated database. Revisions to the manual were made as we made progress in the project.

<b>1 English User Manual for the St. Mary's Digital Archives</b>	
By: Erik Wegge, Nathan Reed, & Ferris Florman	
Revised By: Javier Espinal, Jared Minnich, Kofi Sarfo, & Adam Lee	
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Figure 5: Second Page of Manual

#### 4.4.1 Errors in Manual

When our team was tasked with completing this project, one of the major parts of the project was to get the database installed. There are so many parts to it that the manual must be followed to ensure that the database works after installation. This was important because if we were unable to access or use the data, then we would fail to improve the database with the different updates that were asked of us. As we followed the manual, we got stuck in many places while we tried to get the database installed. With this impediment, the team contacted Erik to help us download and install the database. We made note of the areas where the manual was lacking and revised it. Giving the correct directions to go about installing software for the database. With the manual fixed, we could then move on to add more directions as we improved upon the database.



#### **4.4.2 Making the Database Generic**

St. Mary's is not the only church that may need to transfer records into a digitally archived database. Our team was tasked with making the existing database generic so that it may be used by organizations other than St. Mary's Parish. The St. Mary's logo is found in most of the database's interface files, as well as several textual mentions to St. Mary's. Making a generic copy of the database would require going through the interface files and replacing all instances of a logo with a sample image, as well as replacing all mentions of St. Mary's in the text. The manual was edited with notes of all the places in the code where changes need to be made with instructions on how to change each file for the new user's information.

#### **4.4.3 Update of Bulk Import and "Generic" Database**

In addition to updating the manual due to errors that we came across, we also added a section explaining how to use the bulk import function in the manual. The database was made specifically for St. Mary's Parish, so we looked through all the PHP files to find anything that is associated with the church and noted it down. With these notes we can tell the user or organization where to go, in what file and in what line, to change anything from text and pictures that are associated with St. Mary's Parish and replace it with their name, brand or logo. Then the database will be in their name, and they won't be associated with another church.

## 5. Conclusion

The team completed the main task for St. Mary's Parish by adapting the database that was designed by the 2020 IQP team to fit the newfound needs of the church. This included creating a bulk import function and templates for the Parish to collect their data, linking imported information to its respective picture of original documentation, and creating a working certificate printout to export information stored in the database. These results were accomplished by building upon the foundation that the 2020 IQP team created. Not only did this allow the 2021 team to ensure they achieved all the goals set, but the solution was also best for the Parish since they are already familiar with the current database system. With the new functions implemented in the database, the staff members working on digitizing the records can now rapidly increase the pace they work by importing hundreds of rows of data at once. The bulk import function with the ability to link data with its corresponding image guarantee that all the documents can be preserved before they get lost or destroyed without losing any of the data in translation.

This project could not have been completed without the support from Rick Montanari and Footprint Possibilities. With the COVID-19 pandemic affecting travel and safety of individuals, the team was not able to be in Panama to visit St. Mary's Parish and see the situation in person. Rick's help and assistance was crucial to make sure that the team understood what needed to be done to best support the church. Having a team composition that did not include a Computer Science major resulted in weeks of hard work to complete the goals without breaking anything in the existing database system. Even with all the hard work put in, the team found more tasks that could be completed to improve the database even further. Although many of the changes aren't crucial to the database function, they will continue to cater the database towards the functionality that the church needs.

## 5.1 Recommendations

Despite our hard work and completing the main goal of our project, we could not complete the new things we were tasked with in the end. The team simply did not have enough time to research and fix the issues at hand. However, to help the next team along with issues as well as things they could do to make the database better, the 2021 team put together a list of recommendations for the new team as well as St. Mary's Parish and Footprint possibilities.

The next team that works on this database should focus on the most important issue, making the database more secure. Security is very important for the database and especially important to the St. Mary's Parish. Last year, after the 2020 team completed the database, someone got into the database and deleted a record by mistake. This deletion caused the whole database to go down. The Parish along with our sponsor would like for that to never happen again except by the administration. Therefore, the new team needs to create a security login session that prevents unauthorized deletion of any record.

The other recommendations will hopefully be less tedious. As of now, the database can print certificates in raw data form only. Rick would like the certificate to be printed out in sentence structure in which the raw data or information will be filled into its respective blanks. Lastly, the new team can make a completely generic database by using the information we provide in the manual on how to do it and where to find the associated PHP files. The work we did should allow the Parish to archive their records in the database at a faster rate, however the job isn't done and we believe that the next team will have a better start to the project with the updated manual.

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## **Appendix A: English User Manual for the St. Mary's Digital Archives**

### **1 Introduction**

Thank you for choosing to use the St. Mary's Digital Archives software written and designed by the WPI A20 IQP team at St. Mary's Parish. The project team would like to thank our advisors, Prof. Jim Chiarelli and Prof. Bob Kinicki, as well as our sponsors at Footprint Possibilities, Rick Montanari and Valmy Guerrero, and at St. Mary's Parish, Tito Mouynes and Father Pio. Without their assistance, this project would not have been possible. The WPI A21 IQP team of St. Mary's Parish looked over and revised any errors in the manual as well as updated it with the new functions that were inputted into the code.

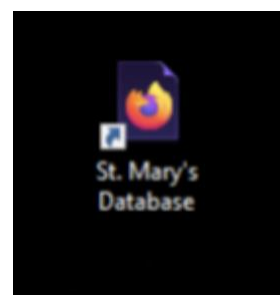
This manual describes in detail how to use this software. It also describes how to install the Digital Archives as well as how to backup and restore the software. This manual was originally written in English by the project team and has been translated into Spanish. This is the definitive guide for operating this software.

## 2 General Operation

This chapter describes how to use the St. Mary's Digital Archives to insert a new record, to insert a new record while repeating the image that was used, to search for a record, and to print a certificate. The software was designed with ease-of-use in mind, and steps were taken to make sure that the flow of data and information is logical. Buttons to return to the welcome screen are provided on most pages.

### 2.a Starting the St. Mary's Digital Archives

To start the St. Mary's Digital Archives, double-click the shortcut on the desktop. The software opens in the default web browser and presents the user with the 'Welcome' screen. Here, the user can choose to create a new record, search for an existing record, or go to the 'Admin' page. The 'Admin' page will not be covered in this chapter of the manual. Turn to section 3.b.i for more information on the 'Admin' page.





## Página de inicio de los archivos digitales de Santa María/Start page for the St. Mary's Digital Archives

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

Crear/Create
Buscar/Search
Importar/Import

Administración/Admin
Agradecimientos/Acknowledgements

## **2.b Taking Pictures**

Follow these steps to create the setup for taking and editing images.

### **2.b.i Setup Environment**

Setup the tripod and the music stand in a clean and safe room for the documents. Place the camera on the tripod. Limit hazards such as ink, food, drinks, sharp objects, and anything else that could cause harm to the records.

### **2.b.ii Prepare the Document**

Carefully put a ledger onto the music stand and open it up to a given page. Make sure to be delicate when handling any documents. As a precaution, anyone handling documents should wash their hands beforehand.

### **2.b.iii Adjust and Align the Camera**

Adjust the camera height and alignment until the record is properly framed. Proper alignment is key to getting images with consistent quality.

### **2.b.iv Take the Photo**

Take the photo of the page. Many images may be taken at once, and an entire book should be done at once to minimize handling. Repeat steps 2.b.i-iv for as many images as necessary.

### **2.b.v Download to Computer**

Download the images to the computer. This may be done by inserting the SD card from the camera into the computer, or by directly attaching the camera to the computer and cutting and pasting the files into a known holding directory.



### **2.b.vi Run Adobe Photoshop 2020**

Open Adobe Photoshop 2020 and load the images in it. Here the images can be edited to make them easier to read.

### **2.b.vii Adjust Image Properties**

Use Photoshop to adjust the image brightness, contrast, and possibly invert the colors of the image so that they are easier to read. Save the images on the computer in a folder that is easy to access. Once they are edited, the images are ready to be inserted into the database. Repeat steps 2.b.vi-vii for each image.

## **2.c Inserting a Record**

To insert a new record, images of the records must be taken and ready to be uploaded onto the computer.

### **2.c.i Locate the Folder Containing the Edited Images**

Make a note of the folder that contains the edited images as it will be important for the rest of this section.

### **2.c.ii Click Create**

Click **'Create'** on the **'Welcome'** page. This leads to a new page that allows the user to select an image to upload as well as a sacrament type.



## Página de inicio de la base de datos de St. Mary/Start page for St. Mary's Database

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

[Crear/ Create](#) [Buscar/ Search](#)

[Administración/ Admin](#) [Agradecimientos/ Acknowledgements](#)

### 2.c.iii Browse to the Image

Click '**Browse**' and navigate to the file that is to be uploaded. This file is found in the folder from step 2.c.i. Once the correct file is selected, click '**Open**'. Select the sacrament that is to be recorded, then click '**Submit**'. The next page displays the fields associated with the sacrament that was selected on the previous page as well as a preview of the image. Generally, this page is the same for each sacrament.



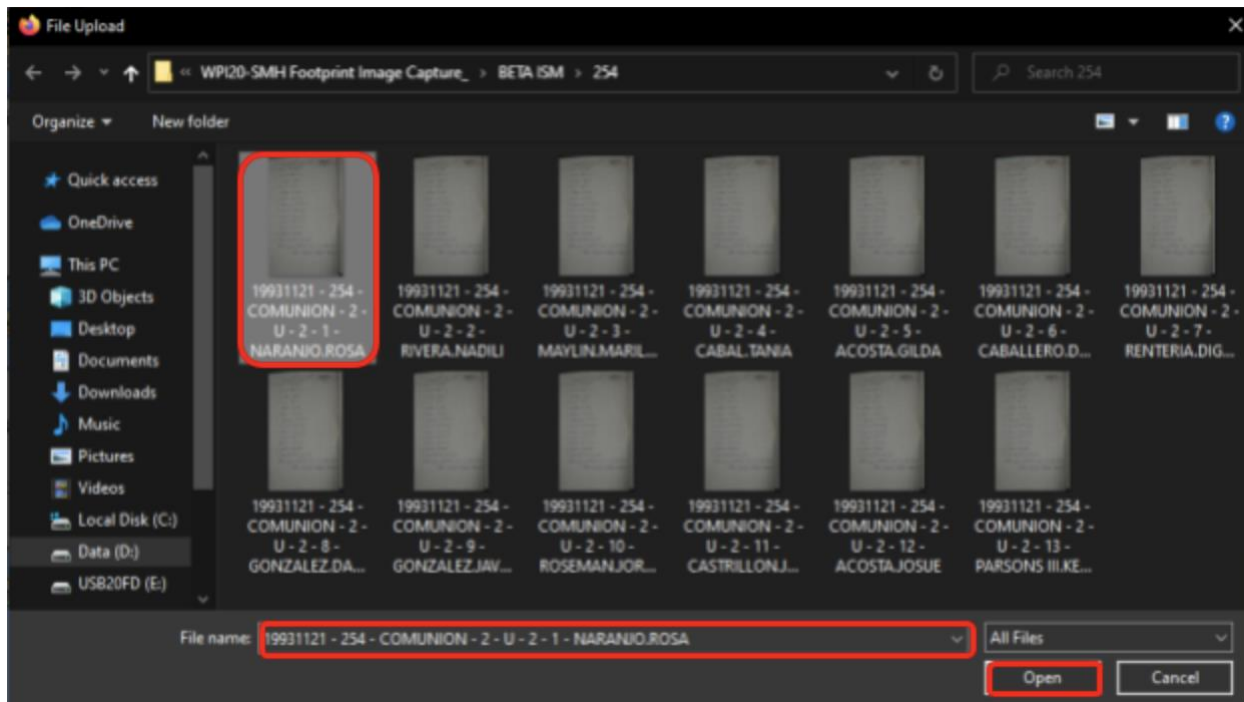
## Eligir una imagen para archivar/Choose an image to archive

[Inicio/Home](#)

Tipo de Sacramento/Sacrament Type:

La imagen/Image:  No file selected.

[Enviar/Submit](#)



## 2.c.iv Transcribe the Data

Read the image for information to enter into the fields on the left. The image can be clicked on to make it larger. Clicking the image opens it in a new tab in the web browser where the user can zoom in to see more details. Back on the previous page, however, enter the information that is contained in the records into the blank fields. If all the fields need to be cleared, click **‘Reset Fields’** to reset all field values. If the wrong image was selected, click **‘Different Image’** to select a new image. Once all of the fields have been filled in, click **‘Submit’**. Certain fields for each sacrament are required and will appear with a red outline if the record is submitted with them blank. These fields must be filled in for the record to be submitted successfully.

**NOTE:** \* = Required field: The form will not submit without these fields filled in. When the value for one of these fields is unknown it must be filled with a placeholder. For required text fields input “None”. For required date fields there are two options.

**One:** Enter the date on the previous record. This will allow the record to be found with an approximate date search.

**Two:** Enter the date as "1000-01-01". This is the lowest possible date the database can hold. When the record is found the date will be set to "None".

Inicio/Home
Imagen diferente/Different Image

### Campos de entrada/Input Fields

**\*=campo requerido/required field**

**\*=If value for a required date field it unknown do one of the following: Input the date of the record prior to this one OR Input the date as "1000-01-01"**

**\*=Si el valor de un campo de fecha obligatorio se desconoce, realice una de las siguientes acciones: Ingrese la fecha del registro anterior a este O Ingrese la fecha como "1000-01-01"**

Núm Libro/Book No.:\*

Núm Página/Page No.:\*

Núm Record/Record No.:\*

Primer Nomb/First Name:\*

Segundo Nomb/Second Name:

Primer Apellido/First Surname:\*

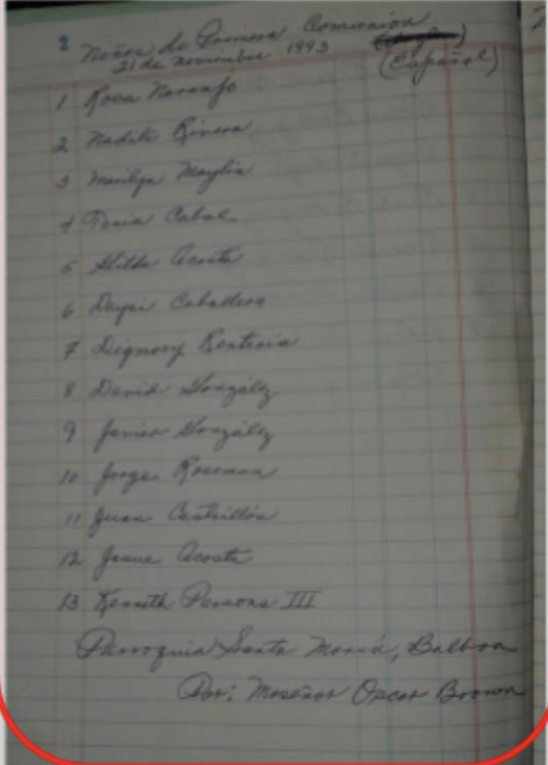
Segundo Apellido/Second Surname:

Sufijo/Suffix:

Cédula/Identification Card:

19931121 - 254 - COMUNION - 2 - U - 2 - 1 -  
NARANJO ROSA, JRG

Imagen cargada (hagar clic para abrir en una nueva pestaña o ventana)  
Image uploaded (click to open in a new tab or window)



Sufijo/Suffix:

Cédula/Identification Card:

Fecha Comunion/Date of Communion:\*

Lugar Comunion/Place of Communion:\*

Nomb Sacerdote/Priest's Name:

Notas/Notes:

Repuesto 1/Spare 1:

Repuesto 2/Spare 2:

Repuesto 3/Spare 3:

[Reestablecer campos/Reset Fields](#)

[Enviar/Submit](#)

[Inicio/Home](#) [Imagen diferente/Different Image](#)

### 2.c.v Check Record Details

Submitting will bring the user to a status page that prints all of the record information. The user will be asked to check the accuracy of the information on the record. At this point, the user has two options. One, confirm the insertion of the record. In that case, click '**Confirm**' and the record will be inserted. Two, go back and reenter information. In that case, click '**Back**' and you will be returned to the previous page. The image that is being uploaded can be previewed by clicking the link in the "Uploaded Image Path" cell.

**Información del Documento/Document Information:**

Núm Único/Unique Identifier	Núm Libro/Book No.	Núm Página/Page No.	Núm Record/Record No.	Ruta de la Imagen Cargada/Uploaded Image Path (Click para ver/Click to view)
P1010020001	101	002	0001	<a href="#">19931121 - 254 - COMUNION - 2 - U - 2 - 1 - NARANJO.ROSA.JPG</a>

**Información del Feligrés/Parishoner Information:**

Primer Nomb/First Name	Segundo Nomb/Second Name	Premier Apellido/First Surname	Segundo Apellido/Second Surname	Sufijo/Suffix	Cédula/Identification Card
Rosa	None	Naranjo	None	None	None

**Información del Registro/Record Information:**

Fecha Comunión/Date of Communion	Lugar Comunión/Place of Communion	Nomb Padre/Priest's Name
1993-11-21	Parroquia Santa Maria	None

**Información del Registro Terciario/Tertiary Record Information:****Información del Registro Terciario/Tertiary Record Information:**

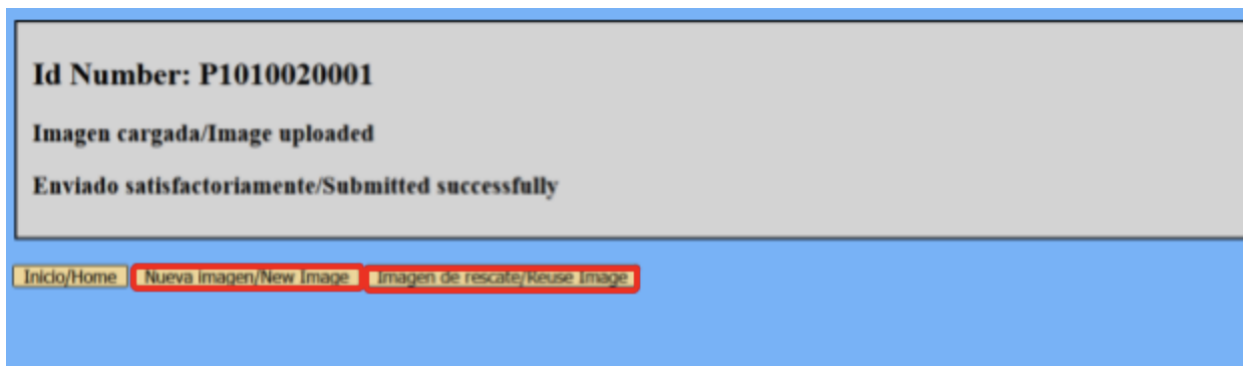
Notas/Notes	Repuesto 1/Spare 1	Repuesto 2/Spare 2	Repuesto 3/Spare 3
None	None	None	None

[Atrás/Back](#) [Confirmar/Confirm](#)

**2.c.vi Submit the Record**

Confirming will bring the user to a status page that prints a record ID as well as the connection and submission status of the record. At this point, the user has two options. One, reuse the last used image in the case that more than one record is going to be entered for the image. In that case, click '**Reuse Image**' and return to section 2.c.iv. Two, choose a new image

to insert records from an entirely different page and/or sacrament type. In that case, click ‘**New Image**’ and return to section 2.c.iii.



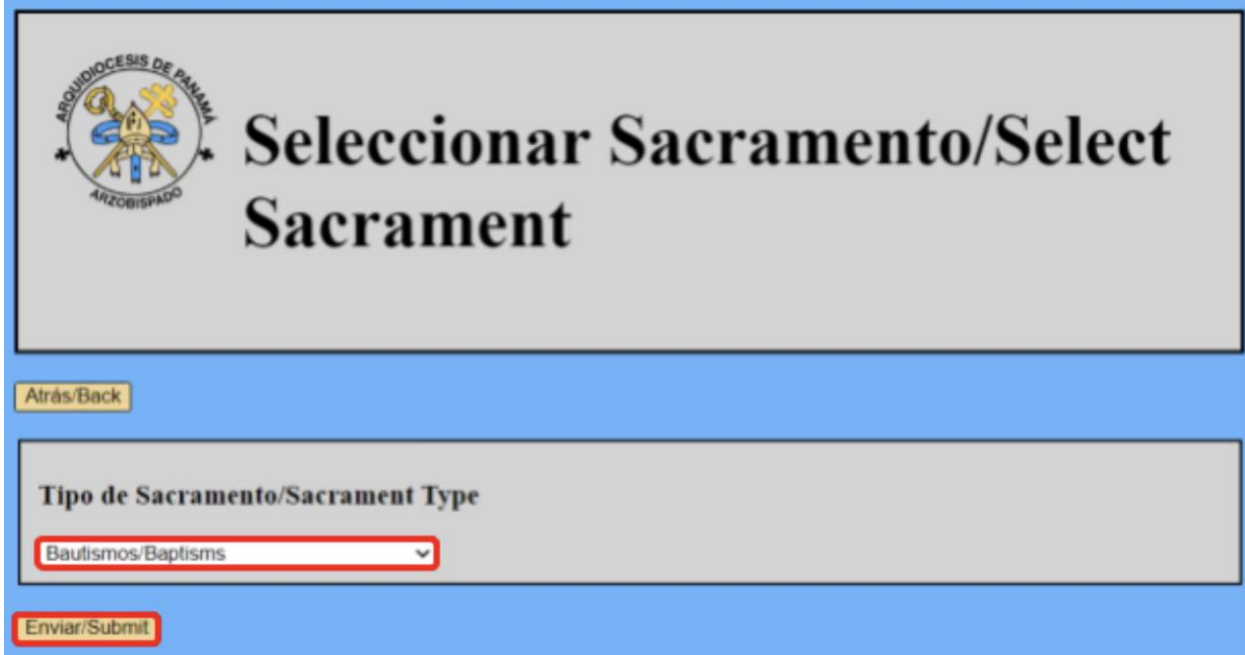
## 2.d 2.d Searching for a Record

To search for an existing record, there are no prior steps that need to be taken.

### 2.d.i Click Search

Click ‘**Search**’ on the ‘**Welcome**’ page. This brings the user to a page with an option to select a sacrament. After choosing one, click ‘**Submit**’. This brings the user to a page with fields to search for that specific sacrament.





**ARQUIDIOCESIS DE PANAMA**  
ARZOBISPADO

## Seleccionar Sacramento/Select Sacrament

Atrás/Back

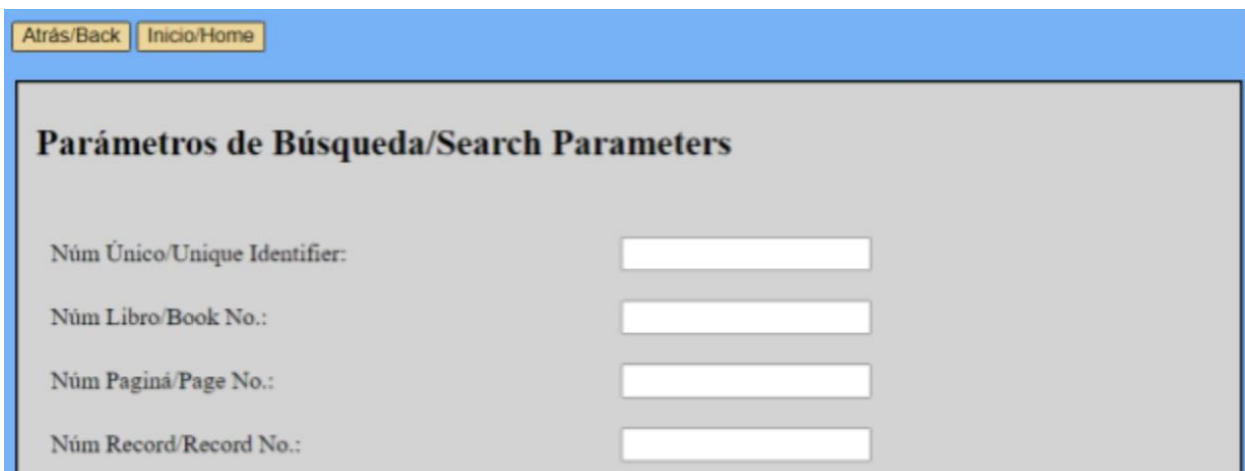
Tipo de Sacramento/Sacrament Type

Bautismos/Baptisms

Enviar/Submit

### 2.d.ii Input Search Parameters

The user can query the database by entering information in the empty boxes. Leaving a box empty will return all results for that sacrament, as an empty input matches all values in the database. One useful tip, to search for all records from one book, type the book number in its field and click **‘Submit’**. This will return all records with that book number. Search results can also be sorted using the **‘Sort by?’** drop-down menu. Fields with names or places are sorted alphabetically. For all queries, however, enter the information, choose a sort order, and click **‘Submit’**.



Atrás/Back Inicio/Home

### Parámetros de Búsqueda/Search Parameters

Núm Único/Unique Identifier:

Núm Libro/Book No.:

Núm Paginá/Page No.:

Núm Record/Record No.:



The image shows a search form with the following fields and controls:

- Nomb Resgristado/Creator Name:** A text input field.
- Fecha Crear/Date Created: Comienzo/Start:** A date input field with a calendar icon, showing the format `mm/dd/yyyy`.
- Fecha Crear/Date Created: Fin/End:** A date input field with a calendar icon, showing the format `mm/dd/yyyy`.
- Ordenar por/Sort by:** A dropdown menu with the selected option `Núm Único/Unique Identifier`.
- Enviar/Submit:** A button with a red border.
- Atrás/Back:** A button.
- Inicio/Home:** A button.

### 2.d.iii Look through Results

The next page produces the output search results from the query. The information on the records in the search result is displayed here. First select a record by clicking one of the buttons in the far left column of the table. Next you can select one of two options of what to do with that record. To select what you want to do with the record select one of the two options at the bottom. First, you can create a certificate for the record by selecting the corresponding button. Or, you can display the document image by selecting the corresponding option. Once a record and action are selected you can click '**Submit**' to execute that action.

Atrás/Back Inicio/Home

Seleccionar Documento/Select Document	Núm Único/Unique Identifier	Núm Libro/Book No.	Núm Paginá/Page No.	Núm Record/Record No.	Primer Nomb/First Name
<input type="radio"/>	P0020020001	2	2	1	Rosa
<input type="radio"/>	P0020020008	2	2	8	David
<input type="radio"/>	P0020020009	2	2	9	Javier

Output Type

Crear Certificado/Create Certificate

Mostrar Imagen de Documento/Display Document Image

Enviar/Submit

Atrás/Back Inicio/Home

### 2.d.iii.1 Print the Certificate

If you select '**Create Certificate**' you will be directed to a page with a certificate for the record you chose. You can print this certificate by clicking '**Print**'.

**Información del Registro/Record Information:**

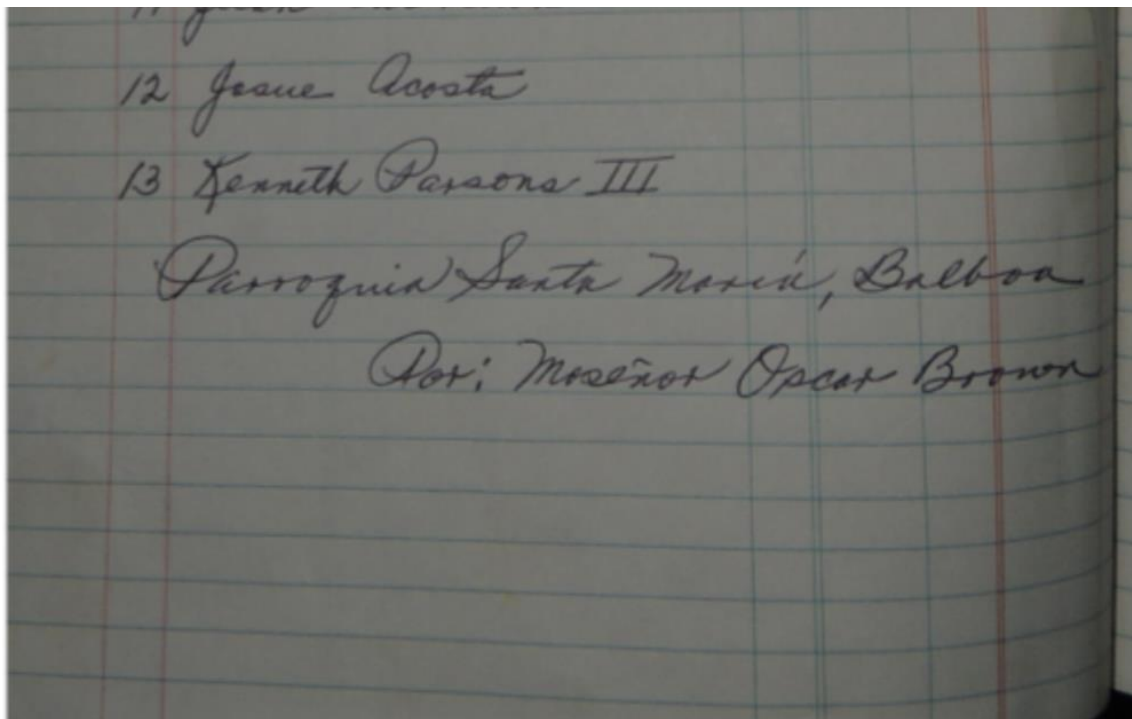
Fecha Comuni3n/Date of Communion	Lugar Comuni3n/Place of Communion	Nomb Padre/Priest's Name
1993-11-21	Parroquia Santa Maria	Oscar Brown

Firma del Sacerdote/Priest Signature: \_\_\_\_\_

Impresi3n/Print

**2.d.iii.2 Print Document Image**

If you select '**Display Document Image**' you will be directed to a page the image of the document containing the record you chose. You can print this image by clicking '**Print**'.



Impresi3n/Print

## 2.e Importing Records

Users can distribute images that have received editing to other users for transcription into an Excel spreadsheet. That spreadsheet can be used to speed up the process of entering information into the database. At this time, there is no automatic way to do this, records must be transcribed from the spreadsheet into the ‘**Create**’ side of the database, following the steps in section 2.c. Blank templates for the spreadsheets are provided in the folder at ‘C:\Program Files\xampp\htdocs\stmddatabase\Import Templates\’. They can be distributed with bundles of images and then returned for someone else to insert into the database itself.

## 2.f Bulk Importing Records

On the database homepage, click on the button called “**Importar/Import**”. This should bring you to a new page where you can upload pictures and import data. To import data, the Excel file has to be converted to a **CSV** file, otherwise the database won’t accept the data file.

To convert an Excel file to a CSV file, go to “File” on the top left corner. Click on “Save As” click on the file type under the file name to change the format. A drop down menu should appear and you need to choose “CSV (Comma Delimited)” to change it to a **.csv** file. Save the CSV file and make sure it’s downloaded so it can update the format change.

Once you have a CSV file saved and downloaded, click on “Choose File” next to where it says “Choose CSV File”. Select the CSV file you want to import from your device. Once selected, click on the black button called “Import” on the right. If the data is imported correctly, a message reading “Data Successfully Uploaded” will appear on your screen. If you get an error saying “Columna no puede estar vacia/Column cannot be empty”, then you are missing required information in your Excel file. Any date in the table needs to be in the format “yyyy-mm-dd” in order for the import to work. Each table needs “Book Number”, “Page Number”, and “Record Number”. Then, the rest of the required fields differ for each table. For Baptisms, the required fields are “First Name”, “First Surname”, “Date of Birth”, “Place of Birth”, “Date of Baptism” and “Place of Baptism”. For Communion, the required fields are “First Name”, “First Surname”, “Date of Communion” and “Place of Communion”. For Confirmation, the required fields are “First Name”, “First Surname”, “Date of Confirmation” and “Place of Confirmation”. For Marriages, the required fields are “Husband’s First Name”, “Husband’s First Surname”, “Wife’s First Name”, “Wife’s First Surname”, “Date of Marriage”, and “Place of Marriage”. For Deaths, the required fields are “First Name”, “First Surname”, “Date of Death”, “Place of Residence”, “Date of Burial” and “Place of Burial”. Fill out the missing information, redownload the Excel file as a CSV file, then try to import the CSV file again. If the file is not a CSV file you will get

an error message saying “Invalid File. Upload : .csv Files”. Make sure the file is a CSV file and try importing again.

To upload images, make sure the images are in **JPEG** or **PNG** format and downloaded on your device. Click on “Choose File” next to “Upload Images” and select the images you want from your device. After, click on the black button called “Start Upload” on the right. You should get a message saying “Images Successfully Uploaded” if the images were uploaded correctly. If you do not upload the correct image format, you will get an error message saying “This file extension is not allowed. Please upload a JPEG or PNG file”. Make sure the images selected are in JPEG or PNG format. When you are done importing/uploading, click on the black button called “Inicio/Home” on the bottom to go back to the database homepage.

## 3 Special Operation

This chapter describes in detail how to install the prerequisite software that is required to run the St. Mary's Digital Archives. It also describes how to backup and restore the software from an external hard drive. This section is for advanced users. None of these processes should be completed without carefully reading these instructions.

### 3.a Installation

There are many steps to installing the Digital Archives, most of them are related to prerequisite software and creating new users in the database.

#### 3.a.i Install XAMPP as an Admin

XAMPP is a solution stack that bundles Apache, PHP, and MariaDB (a free and open-source fork of MySQL) as well as the database software phpMyAdmin.

##### 3.a.i.1 Download the XAMPP Installer

Begin by downloading the latest XAMPP installer from their website, <https://www.apachefriends.org/index.html>. Once it finishes, open the downloads folder, right-click on it and select '**Run as administrator**'.

##### 3.a.i.2 Dismiss Warning

On the first dialog that appears, click '**OK**' to dismiss the warning. Then click next.

##### 3.a.i.3 Select Software to Install

This screen presents a list of software that comes with XAMPP. Only check the boxes for Apache, MySQL, PHP, Perl, and phpMyAdmin. Then click next.

### **3.a.i.4 Make a New Folder at ‘C:\Program Files\xampp\’**

Now pick a folder to install XAMPP in. Navigate to ‘C:\Program Files\’ in the folder picker inside the XAMPP installer and create a new folder called ‘xampp’. This is the folder where XAMPP will be installed. Select ‘C:\Program Files\xampp\’ and then click next.

### **3.a.i.5 Final Steps**

Select English as the language for the software. Click next, then deselect the box that asks about Bitnami. Click next and then install the software. At the end of the installation, do not run the XAMPP control panel, exit the installer.

### **3.a.ii Run Apache and MariaDB as Windows Services**

Now configure the Windows services for Apache and MariaDB to start and run automatically whenever XAMPP starts.

#### **3.a.ii.1 Start the XAMPP Control Panel**

Whenever the XAMPP Control Panel is run, it should be as a user with administrator rights. Go to the Start menu, then scroll to a folder labeled ‘XAMPP’ in the list of applications. Open that folder, right-click ‘XAMPP Control Panel’, and select ‘More’ > ‘Run as administrator’. After confirming that choice, the XAMPP Control Panel will start.

#### **3.a.ii.2 Start Apache**

Start Apache for the first time by clicking ‘**Start**’ on the line for Apache. Then click ‘**Allow**’.

#### **3.a.ii.3 Start MariaDB**

Start MariaDB for the first time by clicking ‘**Start**’ on the line for MySQL. Then click ‘**Allow**’.

### 3.a.ii.4 Stop Apache and MariaDB

Now that both services work when started manually, they can be configured to start automatically. Click **‘Stop’** on the lines for Apache and MySQL.

### 3.a.ii.5 Install Them as Windows Services

Once they have stopped, click the red X next to Apache and MySQL to install both as Windows services. Click **‘Yes’** in the next dialog for each.

THIS STEP MIGHT NOT BE NEEDED IN NEW VERSIONS.

### 3.a.ii.6 Final Steps

Now click **‘Config’** in the XAMPP Control Panel. Under the section outlining autostart modules, check the boxes for Apache and MySQL. Confirm that change. To test it, restart XAMPP with administrative privileges and notice if they start automatically.

### 3.a.iii Set Database Root Password

By default, MariaDB and phpMyAdmin do not have a root password, or a password on the account that controls the database server. This absolutely needs to be configured before doing anything else.

#### 3.a.iii.1 Start phpMyAdmin

In the XAMPP Control Panel, click **‘Admin’** on the MySQL line. This launches phpMyAdmin. phpMyAdmin can also be reached by typing **‘<http://localhost/phpmyadmin/>’** into a web browser.

#### 3.a.iii.2 Click User Accounts

The first screen that is displayed is the home screen. On that page, click the button on the top banner called **‘User accounts’**



### 3.a.iii.3 Change the Root Password

There are three accounts with the username 'root'. Each of them have to have the same password and each of them have to be changed manually. For the first one, click '**Edit privileges**', then click the button at the top that says '**Change password**'. Enter a password twice and then click go. Repeat this for the other two 'root' users. Write this password down somewhere and keep it in a safe place near the computer running the Digital Archives. Once this is done, exit phpMyAdmin and stop Apache, MariaDB, and XAMPP.

### 3.a.iii.4 Run Notepad

phpMyAdmin has to be configured manually to require a password for all users. Go to the Start menu and in the list of programs go to '**Windows Accessories**' > '**Notepad**'. Right-click that and go to '**More**' > '**Run as administrator**'.

### 3.a.iii.5 Edit the Configuration File in Notepad

Click '**File**' > '**Open**', then click where it says "Text Documents (.txt)" and select "All Files" in the dropdown menu to show all files. This is due to "config.inc.php" not having the file extension of ".txt". Now, open the file at 'C:\Program Files\xampp\phpmyadmin\config.inc.php'. Then, edit the line that reads

```
$cfg['server'][$i]['auth_type'] = 'config'
```

to read

```
$cfg['server'][$i]['auth_type'] = 'cookie'
```

Edit the line that reads

```
$cfg['server'][$i]['AllowNoPassword'] = true
```

to read

```
$cfg['server'][$i]['AllowNoPassword'] = false
```

Save the file and exit Notepad.

### 3.a.iii.6 Restart XAMPP

Restart XAMPP like in step 3.a.ii.1. Apache and MariaDB should start automatically if the steps in section 3.a.ii were followed. If they didn't, start them like in steps 3.a.ii.2 and

3.a.ii.3. Start phpMyAdmin like in step 3.a.iii.1. Enter 'root' for the username and the password that was entered in step 3.a.iii.3 for the password.

### **3.a.iv Initialize the Digital Archives**

This section should only be done if there is no usable backup from which to restore the software. Doing this step will generate a blank database with NO records or images.

#### **3.a.iv.1 Download from GitLab**

Download the files in the repository at '<https://gitlab.com/stmarysiqpa21>'. A developer of this software may have to log in to their account to do this if the repository is not public. Click Database in the middle of the page, a new window will pop up. In the top right there is a download button, click the arrow and make sure to download as zip.

#### **3.a.iv.2 Extract the Archive**

Extract the files from the '.zip' archive into a folder called 'stmdatabase'. The 'stmdatabase' is already a file that exists in the download.

#### **3.a.iv.3 Copy Files**

Copy the folder named 'stmdatabase' into another folder called 'C:\Program Files\xampp\htdocs\'. Administrative rights may be required.

#### **3.a.iv.4 Create the Desktop Shortcut**

Create a desktop shortcut for the Digital Archives. Right-click on the desktop and select 'New' > 'Shortcut'. Type '<http://localhost/stmdatabase/index.php>' into the first box, and then give it a name in the second box.

#### **3.a.iv.5 Start phpMyAdmin**

Start phpMyAdmin like in step 3.a.iii.1 and log into phpMyAdmin as the root user.

### 3.a.iv.6 Click Import

Click the button on the top banner called '**Import**'. The fresh install of the software comes with a file to import into phpMyAdmin to initialize the database.

### 3.a.iv.7 Browse to the File

Browse to the blank database file at 'C:\Program Files\xampp\htdocs\stmddatabase\stmary.sql'. Select no other options on this page and click '**Go**' at the bottom of the page. This initializes the database so that it can be used by the Digital Archives.

### 3.a.v Create Four New Users

Four new users in phpMyAdmin have to be created in order for the Digital Archives to work. They are the general user, the user for the backups, the user for the restores, and the user to delete. The process to create each user is the same, however the usernames, passwords, and privileges are not. This section will create the general user, and these steps can be repeated for the backup, restore, and delete users with the information provided at the end of this section.

#### 3.a.v.1 Start phpMyAdmin

Start phpMyAdmin like in step 3.a.iii.1 and log into phpMyAdmin as the root user.

#### 3.a.v.2 Click User Accounts

Click the button on the top banner called '**User accounts**'.

#### 3.a.v.3 Click add user account

On the next page, click '**Add user account**' below the table of existing users. A new window appears to set the authentication settings for the new account.

For this user

Username = Mary

Hostname = localhost

Password = StMarysIQPA20

Check no other boxes and click '**Go**'.

#### **3.a.v.4 Click Home**

Click the **Home** icon in the top left corner of phpMyAdmin.

#### **3.a.v.5 Click User Accounts**

Click the button on the top banner called '**User accounts**'.

#### **3.a.v.6 Edit Privileges for the New User**

On the line for the new user, 'Mary', click '**Edit privileges**'.

#### **3.a.v.7 Click Database**

On the next page, click the button under the top banner called '**Databases**'.

#### **3.a.v.8 Select the Database**

Select 'stmary' from the list of databases and click '**Go**'.

#### **3.a.v.9 Select the Permissions for the User**

On the next screen, check the boxes for 'SELECT', 'INSERT', and 'LOCK TABLES' only. These permissions are different between different users. Click '**Go**'.

#### **3.a.v.10 Repeat for other users with new information**

Repeat these steps to create two new users. The information for each are

Backup User:

Username = root\_backup

Hostname = localhost

Password = StMarysParishA20

Permissions = SELECT, LOCK TABLES

Restore User:

Username = root\_restore

Hostname = localhost

Password = sTmARYSpARISHa20

Permissions = INSERT, SELECT, CREATE, ALTER, DROP, LOCK TABLES

Delete User:

Username = root\_delete

Hostname = localhost

Password = Maryhadalittlelamb710

Permissions = SELECT, DELETE, LOCK TABLES

### 3.a.vi Autostart XAMPP

Now that all of the configuring for XAMPP is completed, it can be configured to start in the background for all users that log into the computer.

#### 3.a.vi.1 Press 'win+r'

Press 'win+r' (the Windows key and the 'R' key) at the same time to start the Run dialog. Type 'taskschd.msc' in the dialog box and then press the 'Ctrl+Shift+Enter' to run it as an administrator.

#### 3.a.vi.2 Import a Task

This is the task scheduler for Windows. It will be used to start XAMPP automatically. On the right pane click '**Import task**'.

#### 3.a.vi.3 Browse to File

Navigate to 'C:\Program Files\xampp\htdocs\stmdatabase\xamppautostarttask.xml' and select it. Under the "General" tab in the "Security Options" section, click "Change User or Group...", then in the text box type the user on the computer that has administrative privileges (you can find this username by going to "C:\Users\" in Windows Explorer. If you know your computer well enough, it should be easy to deduce which users are standard users and which are

admin users). Click "Check Names" next to that box to verify that the user exists, then click "OK" and "OK" again. Not performing this step would incorrectly set the user running the task. Accept and save that choice. Log out and log back in, then navigate to the **‘Welcome’** page to check that XAMPP started automatically. This section was successfully completed if the software starts without any further steps.

### **3.a.vii Configure Powershell**

Windows still has to be configured to run unsigned local Powershell scripts. This software takes advantage of two Powershell scripts that were created by the IQP team. They backup and restore the Digital Archives.

#### **3.a.vii.1 Run Powershell**

To start, run Powershell as an administrator. Go to the Start menu and go to **‘Windows Powershell’** > **‘Windows Powershell’**. Then, right-click on **‘Windows Powershell’** and select **‘More’** > **‘Run as administrator’**. This will open up a command prompt for Powershell.

#### **3.a.vii.2 Check the Current Execution Policy**

In Powershell, type **‘Get-ExecutionPolicy’** and then press **‘Enter’** to check what the current policy is. By default, it should be **‘Restricted’**.

#### **3.a.vii.3 Set the New Execution Policy**

Type **‘Set-ExecutionPolicy -ExecutionPolicy RemoteSigned’** and press **‘Enter’** to change the execution policy in Windows to allow locally written Powershell scripts to run without a Certificate Authority signature.

#### **3.a.vii.4 Check the New Execution Policy**

Type **‘Get-ExecutionPolicy’** and press **‘Enter’** again to make sure that it was set correctly. This time, it should print **‘RemoteSigned’**. After that is done, the St. Mary’s Digital Archives are ready to be used.

### 3.b Maintenance

This section describes how to perform general maintenance on the Digital Archives. Here, the process for backing up images and the database as well as restoring the last saved database and archive of images is described. The process for deleting records is also described here.

#### 3.b.i Backup to External Destination

Backing up the images and database to an external destination is an important part of ensuring that the information in the database is preserved. Regular backups should be performed on the order of every week for as long as new data is being entered into the database. The physical backup drive should be stored in another building, separate from where the master database except for when the backup takes place. This backup process copies everything inside of the folder 'C:\Program Files\xampp\htdocs\stmdatabase' onto the backup drive. It exports the database to a file in this folder, then it copies the contents of that folder which include images and webpages to the backup drive.

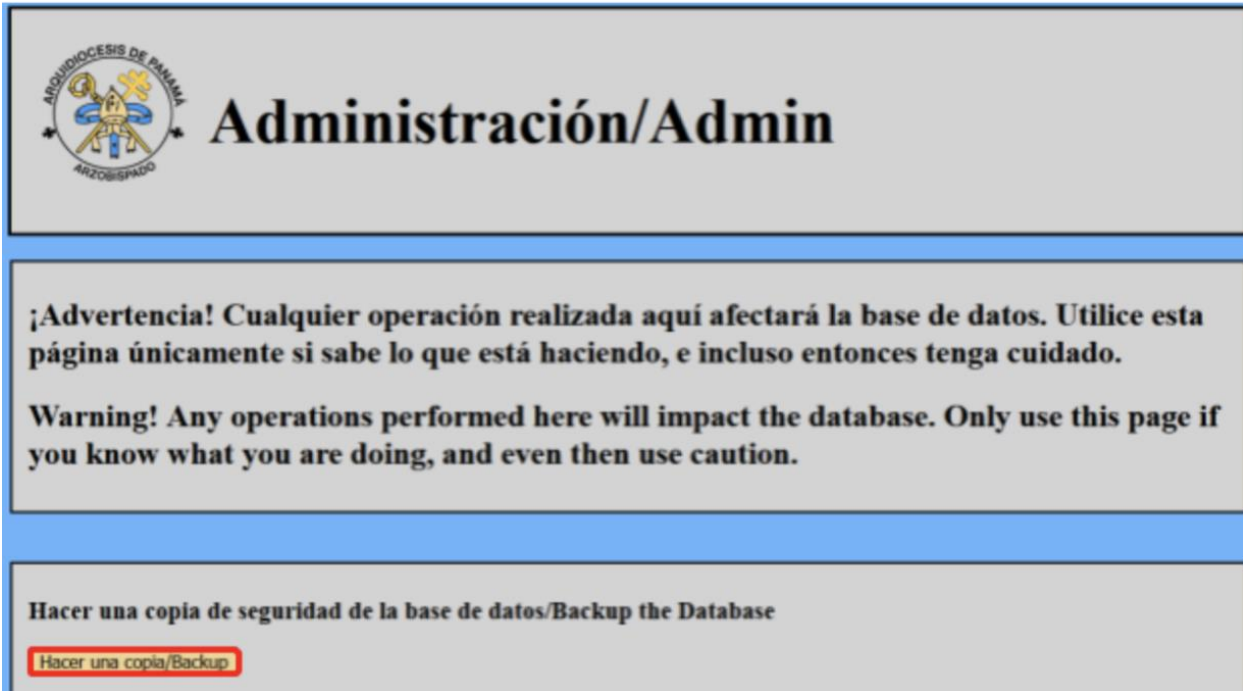
##### 3.b.i.1 Click Admin

On the 'Welcome' page, click 'Admin' to view the page with administrative tools for this software. To run a backup, click 'Backup' on the 'Admin' page. After mounting the external hard drive, use File Explorer to locate the folder to where the backup will be saved.




**Página de inicio de la base de datos  
de St. Mary/Start page for St. Mary's  
Database**

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?



**Administración/Admin**

**¡Advertencia! Cualquier operación realizada aquí afectará la base de datos. Utilice esta página únicamente si sabe lo que está haciendo, e incluso entonces tenga cuidado.**

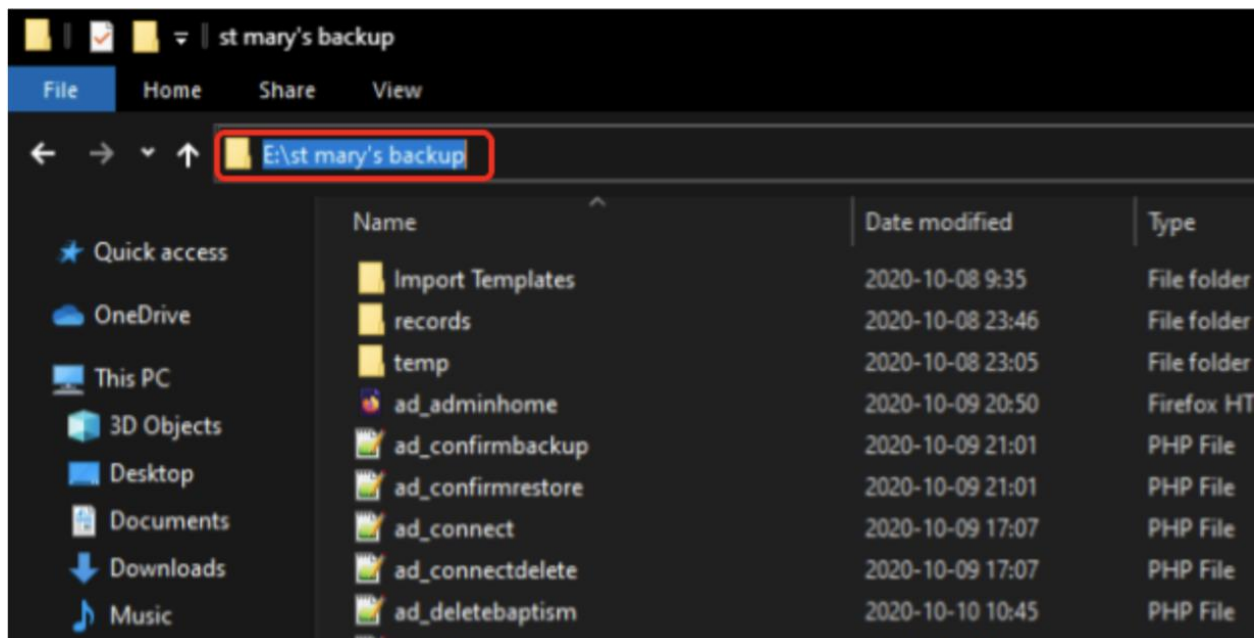
**Warning! Any operations performed here will impact the database. Only use this page if you know what you are doing, and even then use caution.**

Hacer una copia de seguridad de la base de datos/Backup the Database

Hacer una copia/Backup

### 3.b.i.2 Enter the Path to the External Drive

Copy and paste the path in the address bar in File Explorer or type the path directly into the text box in the form “[drive letter]:\path\to\directory” under the ‘**Backup**’ heading on the ‘**Admin**’ page.





Escriba o pegue la ruta al directorio de origen de la copia de seguridad en el cuadro a continuación. La carpeta ya debe existir y debe tener el formato [letra de unidad]:\ruta\directorio, por ejemplo, E:\juan\copias de seguridad\la base de datos de st marys

Type or paste the path to the backup source directory in the box below. The folder must already exist, and it should be in the form [drive letter]:\path\to\directory, for example, E:\john\backups\st mary's database

**¡Aviso!** El proceso de copia de seguridad no es instantáneo y puede tardar hasta seis horas si hay una gran cantidad de nuevos registros e imágenes. Tenga paciencia, esta página no se actualizará una vez que se presione el botón. La página continuará cargándose (consulte la pestaña de esta página y el botón de actualización en el navegador) hasta que finalice el proceso. Se mostrará una página de estado cuando la secuencia de comandos haya tenido éxito, haya fallado o haya agotado el tiempo de espera. Si el proceso de copia de seguridad se agota (a las 6 horas), vuelva a esta página y vuelva a ejecutar la copia de seguridad con la misma carpeta. El script reiniciará la copia de seguridad donde se detuvo y finalizará normalmente.

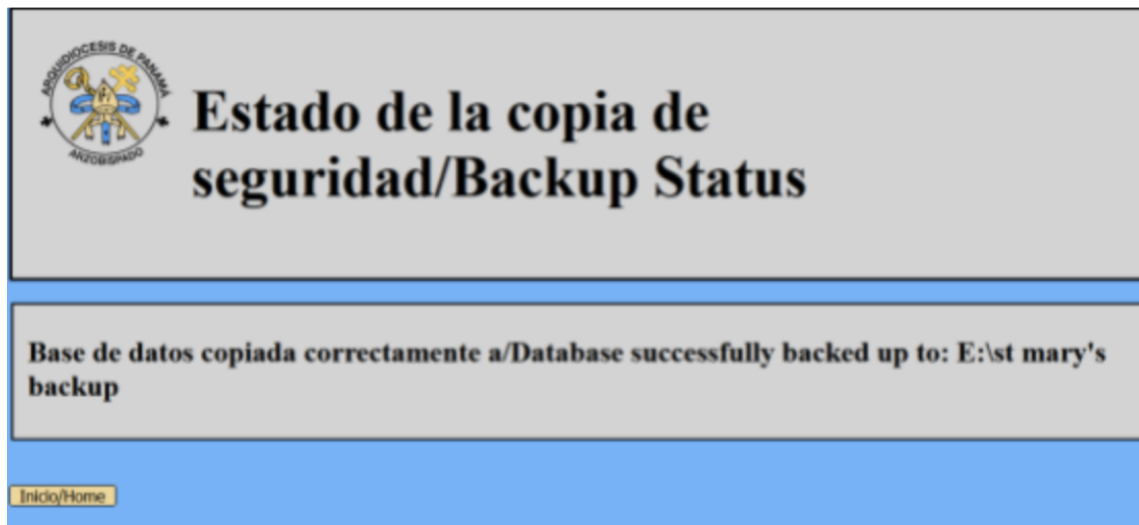
**Notice!** The backup process is not instantaneous and may take up to six hours if there are a large amount of new records and images. Be patient, this page will not refresh once the button is pressed. The page will continue to load (see the tab for this page and the refresh button in the browser) until the process finishes. A status page will be displayed when either the script succeeded, failed, or timed out. If the backup process times out (at 6 hours), return to this page and run the backup again with the same folder. The script will restart the backup where it had stopped and finish normally.

Hacer una copia de seguridad de archivos en/Backup files to:

### 3.b.i.3 Final Steps

Once this is done, click '**Backup**'. Doing this will run a Powershell script in the background and download the database and the images to the external drive. This process may take some time depending on how many files there are. If it takes a long time, it may fail silently and not alert the user in the software directly. If this fails, the backup can be run manually from a Powershell prompt opened in 'C:\Program Files\xampp\htdocs\stmdatabase' with Administrative privileges. The command is '`.\stmarysbackup.ps1 -destdir <path from step 3.b.i.2>`'. The path is not in angle brackets but should be typed with a pair of quotes, for example

```
.\stmarysbackup.ps1 -destdir "E:\path\to\backup folder"
```



### 3.b.i.4 Alternative Backup Option

In order to backup the data, go to <http://localhost/phpmyadmin/index.php>. Next, click on the database on the left called “stmary”. Click on “Export” on the top and under “Export Method”, click on “Custom - display all possible options”. A new section called “Tables” should appear. Under “Tables”, uncheck the box that says “Structure” on the top. This should deselect the structure for every table. Make sure the box for “Data” is checked for every table since we will be backing up the data. Next, scroll all the way down and click “Go”. A file called “stmary.sql” will be downloaded onto your device. This file contains a backup of the data that was in the database. Keep this file safe since this will be used for the backup.

To import the backup file, go to <http://localhost/phpmyadmin/index.php>. Next, click on the database on the left called “stmary”. For each table, click on “Empty” to empty out the data. A popup window will appear saying you will “TRUNCATE” the table. Click “Ok” and proceed to do it to the rest of the tables. This will ensure the backup file will be imported correctly. Click on “Import” on the top. Under “File to Import”, click on the button called “Choose file” and

choose the file downloaded previously when we exported the data. Next, click on “Go” and the data will be reimported into the database.

### 3.b.ii Restore from External Source

In case the images and database become corrupted or otherwise unusable, the software can be restored from an external source. By convention, this source is the backup that was created in section 3.b.i.

#### 3.b.ii.1 Click Admin

On the welcome page, click ‘**Admin**’ to view the page with administrative tools. To restore the Digital Archives from a backup, utilize the second field under the heading labeled ‘**Restore**’. After mounting the external hard drive, use File Explorer to locate the folder where the backup is saved to.




 **Página de inicio de la base de datos de St. Mary/Start page for St. Mary's Database**

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

[Crear/Create](#) [Buscar/Search](#)

[Administración/Admin](#) [Agradecimientos/Acknowledgements](#)



## Administración/Admin

**¡Advertencia! Cualquier operación realizada aquí afectará la base de datos. Utilice esta página únicamente si sabe lo que está haciendo, e incluso entonces tenga cuidado.**

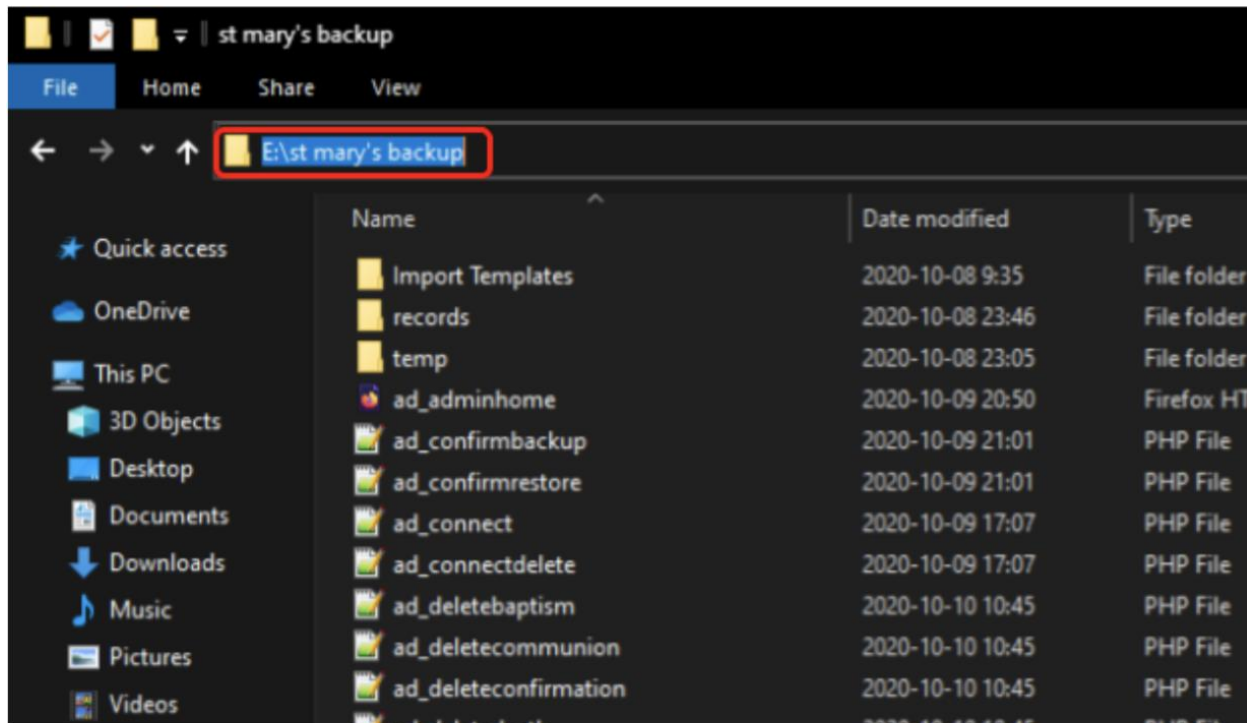
**Warning! Any operations performed here will impact the database. Only use this page if you know what you are doing, and even then use caution.**

Hacer una copia de seguridad de la base de datos/Backup the Database

Restaurar la base de datos/Restore the Database

### 3.b.ii.2 Type of paste the path to the external drive

Copy and paste the path in the address bar in File Explorer or type the path directly into the text box under the **Restore** heading on the **Admin** page.



Escriba o pegue la ruta al directorio de origen de la copia de seguridad en el formulario [letra de unidad]:\ruta \directorio, por ejemplo, E:\Juan\copias de seguridad\la base de datos de st marys

Type or paste the path to the backup source directory in the form [drive letter]:\path\to\directory, for example, E:\john\backups\st mary's database

¡Aviso! El proceso de restauración no es instantáneo y puede tardar hasta seis horas. Tenga paciencia, esta página no se actualizará una vez que se presione el botón. La página continuará cargándose (consulte la pestaña de esta página y el botón de actualización en el navegador) hasta que finalice el proceso. Se mostrará una página de estado cuando la secuencia de comandos haya tenido éxito, haya fallado o haya agotado el tiempo de espera. Si el proceso de restauración se agota (a las 6 horas), regrese a esta página e intente restaurar nuevamente desde la misma carpeta. El script reiniciará el proceso de restauración donde se detuvo y finalizará normalmente

Notice! The restore process is not instantaneous and may take up to six hours. Be patient, this page will not refresh once the button is pressed. The page will continue to load (see the tab for this page and the refresh button in the browser) until the process finishes. A status page will be displayed when either the script succeeded, failed, or timed out. If the restore process times out (at 6 hours), return to this page and try restoring again from the same folder. The script will restart the restore process where it had stopped and finish normally

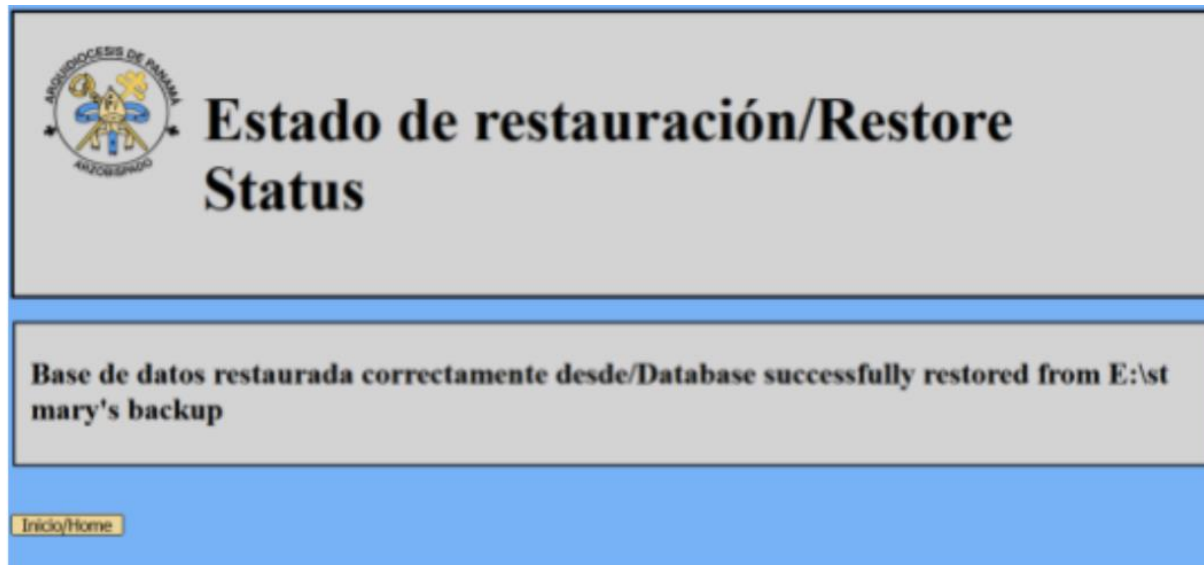
Restaurar archivos de/Restore files from:

### 3.b.ii.3 Click go

Once this is done, click '**Restore**'. Doing this will run a powershell script in the background and restore the last version of the database and the images that were backed up to the computer. This process may take some time depending on how many files there are. If it takes a long time, it may fail silently and not alert the user in the software directly. If this fails, the

restore can be run manually from a Powershell prompt opened in ‘C:\Program Files\xampp\htdocs\stmdatabase’ with Administrative privileges. The command is ‘.\stmarysrestore.ps1 -sourcedir <path from step 3.b.ii.2>’. The path is not in angle brackets but should be typed with a pair of quotes, for example

```
.\stmarysrestore.ps1 -sourcedir "E:\path\to\backup folder"
```



### 3.b.iii Delete Record from Database

In case a record has been entered incorrectly it can be deleted from the database.

**Warning**, once a record has been deleted it cannot be recovered. To recreate a deleted record it must be reentered using the insert tool.

#### 3.b.iii.1 Click Admin

On the welcome page, click ‘**Admin**’ to view the page with administrative tools. To delete a record from the database, utilize the third field under the heading labeled ‘**Delete**’.



**Página de inicio de la base de datos  
de St. Mary/Start page for St. Mary's  
Database**

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

**¡Advertencia! Cualquier operación realizada aquí afectará la base de datos. Utilice esta página únicamente si sabe lo que está haciendo, e incluso entonces tenga cuidado.**

**Warning! Any operations performed here will impact the database. Only use this page if you know what you are doing, and even then use caution.**

Hacer una copia de seguridad de la base de datos/Backup the Database

Restaurar la base de datos/Restore the Database

Eliminar un registro de la base de datos/Delete a record from the database

Volver a la página de inicio/Return to the start page

### 3.b.iii.2 Type of paste the path to the external drive

First select the sacrament type of the record you want to delete using the dropdown menu. Next enter the unique identifier of the record you want to delete (e.g. B0120120123, F1231231234). This can be found by searching for the record and looking at the second column of the results table. Once the sacrament type is selected and the unique identifier has been entered, click 'Delete'.

Atrás/Back

**¡Advertencia!/Warning!**

Esta página se puede utilizar para ubicar un registro para eliminar en la base de datos. Utilice esta función con extrema precaución. Si se encuentra un registro, se mostrará una vista previa del registro y una aparecerá un mensaje de confirmación. Solo los usuarios avanzados deben usar esta página. Eliminar un registro no elimine la imagen que está almacenada en el disco duro. Nuevamente, tenga mucho cuidado con esta función.

This page can be used to locate a record to delete in the database. Use this function with extreme caution. If a record is found, a preview of the record will be displayed and an additional confirmation message will appear. Only advanced users should use this page. Deleting a record does not delete the image that is stored on the hard drive. Again, use extreme caution with this function.

**Tipo de Sacramento/Sacrament Type**

Bautismos/Baptisms  NÚM ÚNICO/Unique Identifier

Eliminar/Delete

### 3.b.iii.3 Check Record Details

Deleting will bring the user to a status page that prints all of the record information. The user will be asked to check the accuracy of the information on the record. At this point, the user has two options. One, confirm the deletion of the record. In that case, click ‘**Yes**’ and the record will be deleted. Two, go back and delete a different record. In that case, click ‘**No**’ and you will be returned to the previous page.



Información del Feligrés/Parishoner Information:					
Primer Nomb/First Name	Segundo Nomb/Second Name	Primer Apellido/First Surname	Segundo Apellido/Second Surname	Sufijo/Suffix	Cédula/Identification Card
Rosa	None	Naranjo	None	None	None

Información del Registro/Record Information:		
Fecha Comunión/Date of Communion	Lugar Comunión/Place of Communion	Nomb Padre/Priest's Name
1993-11-21	Parroquia Santa Maria	Oscar Brown

¿Está seguro de que desea eliminar este registro de la base de datos?/Are you sure you want to delete this record from the database?

Si/Yes  No

### 3.b.iii.4 Click go

Deleting will bring the user to a status page that prints a record ID and asks what you would like to do next. At this point, the user has three options. One, delete another record. In that case, click '**Delete Another**' and return to section 3.b.iii.2. Two, insert a new record to replace the one that was deleted. In that case, click '**Insert New**' and go to section 2.c.iii. Three, return to the home page. In that case, click '**Home**' and go to the home page.

**Record P0020020001 ha sido eliminado: ¿Qué le gustaría hacer a continuación?/Record P0020020001 has been deleted: What would you like to do next?**

**Eliminar otro registro/Delete another record:**

[Eliminar Otro/Delete Another](#)

**Insertar un registro correcto/Insert a correct record:**

[Insertar Nueva/Insert New](#)

**Volver a la página de bienvenida/Go back to welcome page:**

[Inicio/Home](#)

## 4 Summary of File Locations and Terms

### 4.a Software

XAMPP = Cross(X)-platform (A)pache (M)ySQL (P)HP and (P)erl, the software that bundles and installs these services.

Apache = A http web server implementation that runs PHP and HTML pages.

MySQL = An implementation of the Structured Query Language, SQL. This is a misnomer as XAMPP does not use MySQL anymore but a fork of that project called MariaDB.

MariaDB = An implementation of the Structured Query Language, SQL. This is a free and open-source version of that language that has been forked from MySQL. However, it is still nearly 100% compatible with MySQL.

PHP = PHP Hypertext Preprocessor, runs the logic between the user and the database.

HTML = HyperText Markup Language, is the language used to render the web pages.

Localhost = The local web server hosting name, if this is typed into the address bar of a web browser, the web browser looks to the localhost directory for a file called 'index.php'. This software is installed inside that directory.

phpMyAdmin = A database administration tool for both MySQL and MariaDB, comes bundled with XAMPP. It can be accessed from the XAMPP Control Panel or from '<http://localhost/phpmyadmin>'.

### 4.b Software Download Links

Link to XAMPP installer download = <https://www.apachefriends.org/index.html>

Link to team GitLab repository (may not work without team intervention) = <https://gitlab.com/st.-mary-s-iqp/database>

### 4.c Installation Directories

XAMPP Install Directory = 'C:\Program Files\xampp\'

Localhost Directory = 'C:\Program Files\xampp\htdocs\'

Digital Archives Install Directory = 'C:\Program Files\xampp\htdocs\stmdatabase\'

Template Directory = 'C:\Program Files\xampp\htdocs\stmdatabase\Import Templates\'

#### 4.d Database Usernames

Admin/Root Username = root

General Username = Mary

Backup Username = root\_backup

Restore Username = root\_restore

Delete Username = root\_delete

See section 3.a.v for their login information. Root user has a password defined by the administrator of the Digital Archives and it should be written down near the computer that is running the software.

#### 4.e Powershell Commands

Manual backup command run from Digital Archives Install Directory in Powershell as an admin = `.\stmarysbackup.ps1 -destdir "E:\path\to\backup folder"`

Manual restore command run from Digital Archives Install Directory in Powershell as an admin = `.\stmarysrestore.ps1 -sourcedir "E:\path\to\backup folder"`

### 5 Making the database Generic

To make the database generic, the church or organization that wants to use it will have to go into the code and change words and pictures to reflect their brand. The team has written down all the PHP files that will need editing to allow for such changes. In the lines of the PHP wherever the name St. Mary's Parish appears can be changed to the name of the organization using it. Do not delete or erase any characters apart from the words you're changing.

To change the pictures or logos of St. Mary's Parish, look for where the line says 'stmary logo picture' in the table then go into the corresponding PHP file. Open the files `/xampp/htdocs/stmdatabase`. First download the image you want and save it as a **.png** or **.jpeg** in the database-master folder. Now open the PHP file, in the line where the stmary logo picture is, it

should say "**stmary\_logo.png**" in quotes. The quotes must not be deleted! In the quotes replace 'stmary\_logo.png' with the name of your image you saved. If you saved it as a .png make sure it's written as "yourImageName.png" and if saved as .jpeg then write in quotes as "yourImageName.jpeg". If the name in the quotes does not match the name of the image in the folder then changing the logo will not work.

The Table below indicates the files and in what lines change is needed to make the database look and feel like yours.

## 5.a Generic Areas Table

/xampp/htdocs/stmdatabase

PHP files	Lines where change is to be implemented
ad_confirmbackup.php	Ln 22 - stmary logo picture
ad_confirmrestore.php	Ln 22 - stmary logo picture
ad_connect.php	Username, password, and database name can be changed
Ad_connectdelete.php	Database name and password can be changed
ad_deletebaptism.php ad_deletecommunion.php ad_deletecommunion.php ad_delete confirmation.php ad_deletedeath.php ad_deletemarriage.php ad_deletedecisionbaptism.php	Ln 8 - St. Mary's Delete/Eliminar de Santa Maria Ln 20 - stmary logo picture
ad_deletedecisioncommunion.php ad_deletedecisionconfirmation.php ad_deletedecisiondeath.php deletedecisionmarriage.php	Ln 7 - St. Mary's Delete/Eliminar de Santa Maria Ln 19 - stmary logo picture
Ad_deleterecorddirect.php	Ln 28 - stmary logo picture
Ad_deleteselect.php	Ln 21 - stmary logo picture
Ad_startbackup.php	Ln 22 - stmary logo picture Lines 39 and 41 - path name should be changed
Ad_startrestore.php	Ln 22 - stmary logo picture Lines 38 and 40 - path name should be changed
In_chooseimage.php	Ln 35 - stmary logo picture
In_decidebaptism.php in_decidecommunion.php in_decideconfirmation.php	Ln 9 - change title Ln 22 - stmary logo picture

in_decidedeath.php in_decidemarriage.php In_writebaptism.php in_writecommunion.php in_writeconfirmation.php in_writedeath.php in_writemarriage.php	
In_insertbaptism.php in_insertcommunion.php in_insertconfirmation.php in_insertdeath in_insert marriage	Ln 9 - change title Ln 32 - stmary logo picture
Index.php	Ln 40 - stmary logo picture Ln 46 - change title
Out_finalbaptism.php	Ln 8 - change title
Out_finalcommunion.php out_finalconfirmation.php out_finaldeath.php outfinalmarriage.php	Ln 7 - change title
Out_tablebaptism.php out_tablecommunion.php out_tableconfirmation.php out_tabledeath.php out_tablemarriage.php	Ln 9 - change title Ln 21 - stmary logo picture
Stmary.sql	Ln 3, 5, 22, 24 - database title
Stmarybackup.ps1	Title change Line 13 - database title and password
Stmarysrestore.ps1	Title change Ln 16 - title and password

## **Appendix B: Spanish User Manual for the St. Mary's Digital**

### **Archives**

#### **1 Introducción**

Gracias por elegir utilizar los Archivos Digitales de Santa María escrito y diseñado por WPI Equipo A20 IQP en la Parroquia de Santa María. El equipo del proyecto quisiera agradecer a nuestros asesores, el Prof. Jim Chiarelli y el Prof. Bob Kinicki, así como a nuestros patrocinadores en Footprint Possibilities, Rick Montanari y Valmy Guerrero, y en la Parroquia de Santa María, Tito Mouynes y el Padre Pio. Sin su ayuda, este proyecto no habría sido posible. El equipo de WPI A21 IQP de la parroquia de St. Mary 's examinó y revisó cualquier error en el manual y lo actualizó con las nuevas funciones que se ingresaron en el código.

Este manual describe en detalle cómo utilizar este software. También describe cómo instalar los Archivos Digitales y cómo hacer una copia de seguridad y restaurar la base de datos. Este manual fue escrito originalmente en inglés por el equipo del proyecto y ha sido traducido al español. Esta es la guía definitiva para operar este software.

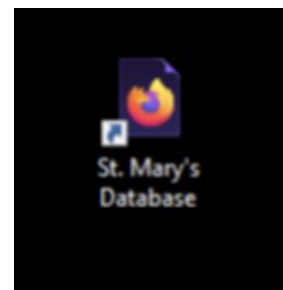



## 2 Funcionamiento general

Este capítulo describe cómo utilizar los Archivos Digitales de Santa María para insertar un nuevo registro, insertar un nuevo registro mientras se repite la imagen que se utilizó, buscar un registro e imprimir un certificado. El software se diseñó teniendo en cuenta la facilidad de uso y se tomaron las medidas necesarias para garantizar que el flujo de datos e información sea lógico. En la mayoría de las páginas se proporcionan botones para volver a la pantalla de bienvenida.

### 2.a Inicio de los Archivos Digitales de Santa María

Para iniciar los Archivos Digitales de Santa María, haga doble clic en el acceso directo del escritorio. El software se abre en el navegador web por defecto y presenta al usuario la 'Bienvenidos' pantalla. Aquí, el usuario puede optar por crear un nuevo registro, buscar un registro existente o ir a la página 'Administración'. La página 'Administración' no se tratará en este capítulo del manual. A su vez a la sección 3.b.i para obtener más información sobre la 'Administración' página





## Página de inicio de los archivos digitales de Santa María/Start page for the St. Mary's Digital Archives

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

Crear/Create
Buscar/Search
Importar/Import

Administración/Admin
Agradecimientos/Acknowledgements

## **2.b Toma de fotografías**

Siga estos pasos para crear la configuración para la toma y edición de imágenes.

### **2.b.i Entorno de Configuración**

Prepare el trípode y el atril en una habitación limpia y segura para los documentos. Coloque la cámara en el trípode. Limite los peligros como tinta, comida, bebidas, objetos cortantes y cualquier otra cosa que pueda dañar los registros.

### **2.b.ii Prepare el documento**

Coloque con cuidado un libro de contabilidad en el atril y ábralo en una página determinada. Asegúrese de ser delicado al manipular cualquier documento. Como medida de precaución, cualquier persona que manipule documentos debe lavarse las manos de antemano.

### **2.b.iii Ajuste y alinee la cámara**

Ajuste la altura y la alineación de la cámara hasta que el registro esté enmarcado correctamente. La alineación adecuada es clave para obtener imágenes con una calidad constante.

### **2.b.iv Tomar la foto**

Tome la foto de la página. Se pueden tomar muchas imágenes a la vez y se debe hacer un libro completo a la vez para minimizar la manipulación. Repita los pasos 2.b.i-iv para tantas imágenes como sea necesario.

### **2.b.v Descargar a la computadora**

Descargue las imágenes a la computadora con el software. Esto se puede hacer insertando la tarjeta SD de la cámara en la computadora o conectando directamente la cámara a la computadora.

### **2.b.vi Ejecute Adobe Photoshop 2020**

Abra Adobe Photoshop 2020 y cargue las imágenes en él. Aquí las imágenes se pueden editar para facilitar su lectura.

### **2.b.vii Ajustar las propiedades de la imagen**

Utilice Photoshop para ajustar el brillo y el contraste de la imagen y posiblemente invertir los colores de la imagen para que sean más fáciles de leer. Guarde las imágenes en la computadora en una carpeta de fácil acceso. Una vez editadas, las imágenes están listas para ser insertadas en la base de datos. Repita los pasos 2.b.vi-vii para cada imagen.

## **2.b Insertar un registro**

Para insertar un nuevo registro, se deben tomar imágenes de los registros y estar listas para ser cargadas en la computadora.

### **2.c.i Localice la carpeta que contiene las imágenes editadas**

Tome nota de la carpeta que contiene las imágenes editadas, ya que será importante para el resto de esta sección.

### **2.c.ii Haga clic en Crear**

Haga clic en '**Crear**' en la página de 'Bienvenida'. Esto conduce a una nueva página que permite al usuario seleccionar una imagen para cargar, así como un tipo de sacramento.



## Página de inicio de la base de datos de St. Mary/Start page for St. Mary's Database

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

### 2.c.iii Navegar hasta la imagen

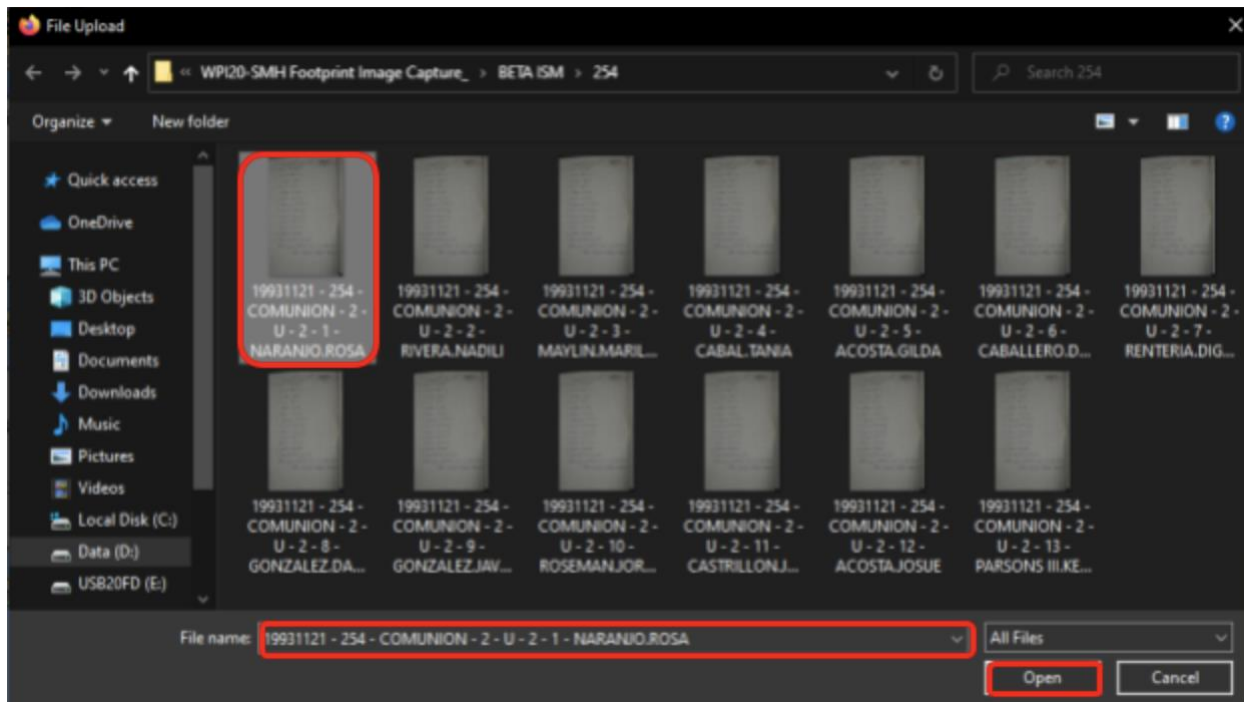
Haga clic en '**Examinar**' y navegue hasta el archivo que se va a cargar. Este archivo se encuentra en la carpeta del paso 2.c.i Una vez seleccionado el archivo correcto, haga clic en '**Abrir**'. Seleccione el sacramento que se va a registrar, luego haga clic en '**Enviar**'. La página siguiente muestra los campos asociados con el sacramento que se seleccionó en la página anterior, así como una vista previa de la imagen. Generalmente, esta página es la misma para cada sacramento.



## Eligir una imagen para archivar/Choose an image to archive

Tipo de Sacramento/Sacrament Type:

La imagen/Image:  No file selected.



## 2.c.iv Transcriba los datos

Lea la imagen para obtener información para ingresar en los campos de la izquierda. Se puede hacer clic en la imagen para agrandarla. Al hacer clic en la imagen, se abre en una nueva pestaña en el navegador web donde el usuario puede hacer zoom para ver más detalles. Sin embargo, de regreso a la página anterior, ingrese la información contenida en los registros en los campos en blanco. Si es necesario borrar todos los campos, haga clic en '**Restablecer campos**' para restablecer todos los valores de los campos. Si se seleccionó la imagen incorrecta, haga clic en '**Imagen diferente**' para seleccionar una nueva imagen. Una vez que se hayan completado todos los campos, haga clic en '**Enviar**'. Ciertos campos para cada sacramento son obligatorios y aparecerán con un contorno rojo si el registro se envía con ellos en blanco. Estos campos deben completarse para que el registro se envíe correctamente.

**NOTA:** \* = campo requerido: El formulario no se enviará sin estos campos completados. Cuando se desconoce el valor de uno de estos campos, debe llenarse con un marcador de posición. Para los campos de texto obligatorios, ingrese “None”. Para los campos de fecha obligatorios, hay dos opciones.

**Uno:** Ingrese la fecha en el registro anterior. Esto permitirá encontrar el registro con una búsqueda de fecha aproximada.

**Dos:** Ingrese la fecha como "1000-01-01". Esta es la fecha más baja posible que puede contener la base de datos. Cuando se encuentre el registro, la fecha se establecerá en "None".

Inicio/Home
Imagen diferente/Different Image

### Campos de entrada/Input Fields

**\*=campo requerido/required field**

**\*=If value for a required date field it unknown do one of the following: Input the date of the record prior to this one OR Input the date as "1000-01-01"**

**\*=Si el valor de un campo de fecha obligatorio se desconoce, realice una de las siguientes acciones: Ingrese la fecha del registro anterior a este O Ingrese la fecha como "1000-01-01"**

Núm Libro/Book No.:\*

Núm Página/Page No.:\*

Núm Record/Record No.:\*

Primer Nomb/First Name:\*

Segundo Nomb/Second Name:

Primer Apellido/First Surname:\*

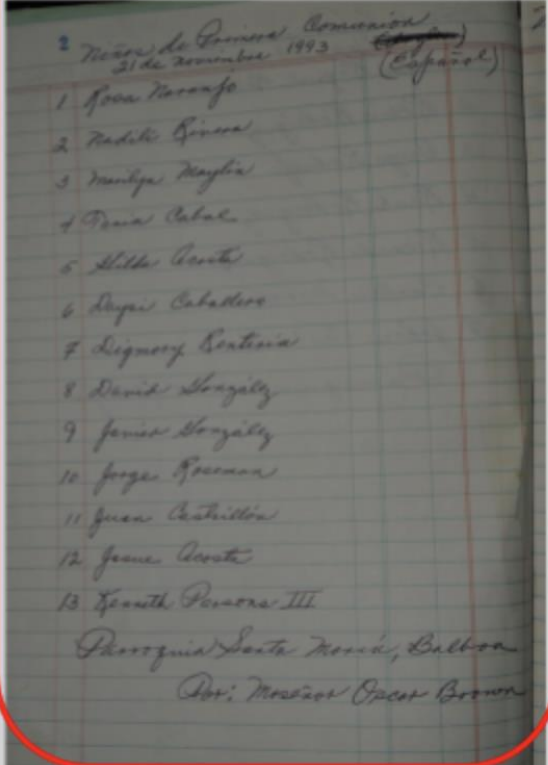
Segundo Apellido/Second Surname:

Sufijo/Suffix:

Cédula/Identification Card:

19931121 - 254 - COMUNION - 2 - U - 2 - 1 -  
NARANJO ROSA, JRG

Imagen cargada (hacer clic para abrir en una nueva pestaña o ventana)  
Image uploaded (click to open in a new tab or window)



Sufijo/Suffix:

Cédula/Identification Card:

Fecha Comunion/Date of Communion:\*   
Please fill out this field.

Lugar Comunion/Place of Communion:\*

Nomb Sacerdote/Priest's Name:

Notas/Notes:

Repuesto 1/Spare 1:

Repuesto 2/Spare 2:

Repuesto 3/Spare 3:

Reestablecer campos/Reset Fields

Enviar/Submit

Inicio/Home

### 2.c.v Verifique los detalles del registro

El envío llevará al usuario a una página de estado que imprime toda la información del registro. Se le pedirá al usuario que verifique la exactitud de la información en el registro. En este punto, el usuario tiene dos opciones. Uno, confirme la inserción del registro. En ese caso, haga clic en '**Confirmar**' y se insertará el registro. Dos, retroceda y vuelva a ingresar la información. En ese caso, haga clic en '**Atrás**' y volverá a la página anterior. Se puede obtener una vista previa de la imagen que se está subiendo haciendo clic en el enlace en la celda "Ruta de la imagen cargada".

**Información del Documento/Document Information:**

Núm Único/Unique Identifier	Núm Libro/Book No.	Núm Paginá/Page No.	Núm Record/Record No.	Ruta de la Imagen Cargada/Uploaded Image Path (Click para ver/Click to view)
P1010020001	101	002	0001	<a href="#">19931121 - 254 - COMUNION - 2 - U - 2 - 1 - NARANJO.ROSA.JPG</a>

**Información del Feligrés/Parishoner Information:**

Primer Nomb/First Name	Segundo Nomb/Second Name	Premier Apellido/First Surname	Segundo Apellido/Second Surname	Sufijo/Suffix	Cédula/Identification Card
Rosa	None	Naranjo	None	None	None

**Información del Registro/Record Information:**

Fecha Comunión/Date of Communion	Lugar Comunión/Place of Communion	Nomb Padre/Priest's Name
1993-11-21	Parroquia Santa Maria	None

**Información del Registro Terciario/Tertiary Record Information:****Información del Registro Terciario/Tertiary Record Information:**

Notas/Notes	Repuesto 1/Spare 1	Repuesto 2/Spare 2	Repuesto 3/Spare 3
None	None	None	None

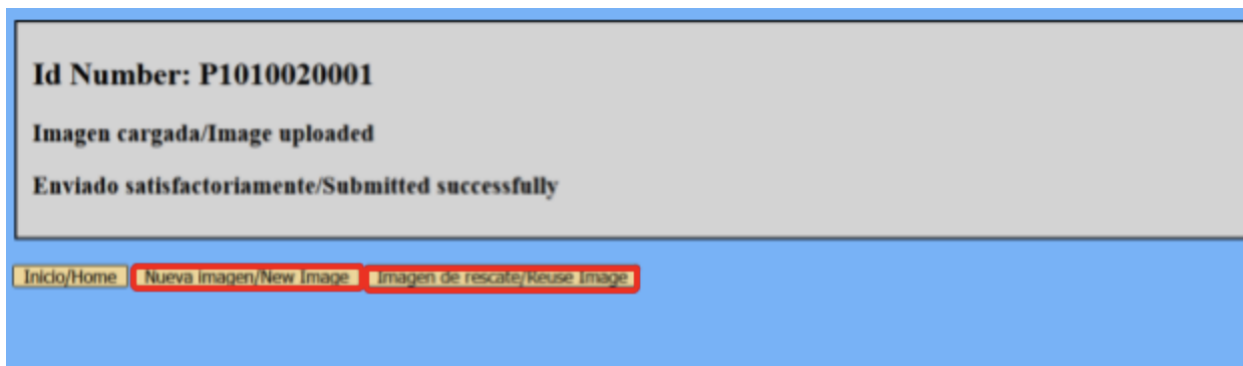
[Atrás/Back](#) [Confirmar/Confirm](#)

**2.c.vi Enviar el registro**

La confirmación llevará al usuario a una página de estado que imprime un ID de registro, así como el estado de conexión y envío del registro. En este punto, el usuario tiene dos opciones. Uno, reutilice la última imagen utilizada en el caso de que se ingrese más de un registro para la imagen. En ese caso, haga clic en '**Imagen de rescate**' y vuelva a la sección 2.c.iv. Dos, elija una



nueva imagen para insertar registros de una página y / o tipo de sacramento completamente diferente. En ese caso, haga clic en '**Nueva imagen**' y vuelva a la sección 2.c.iii.



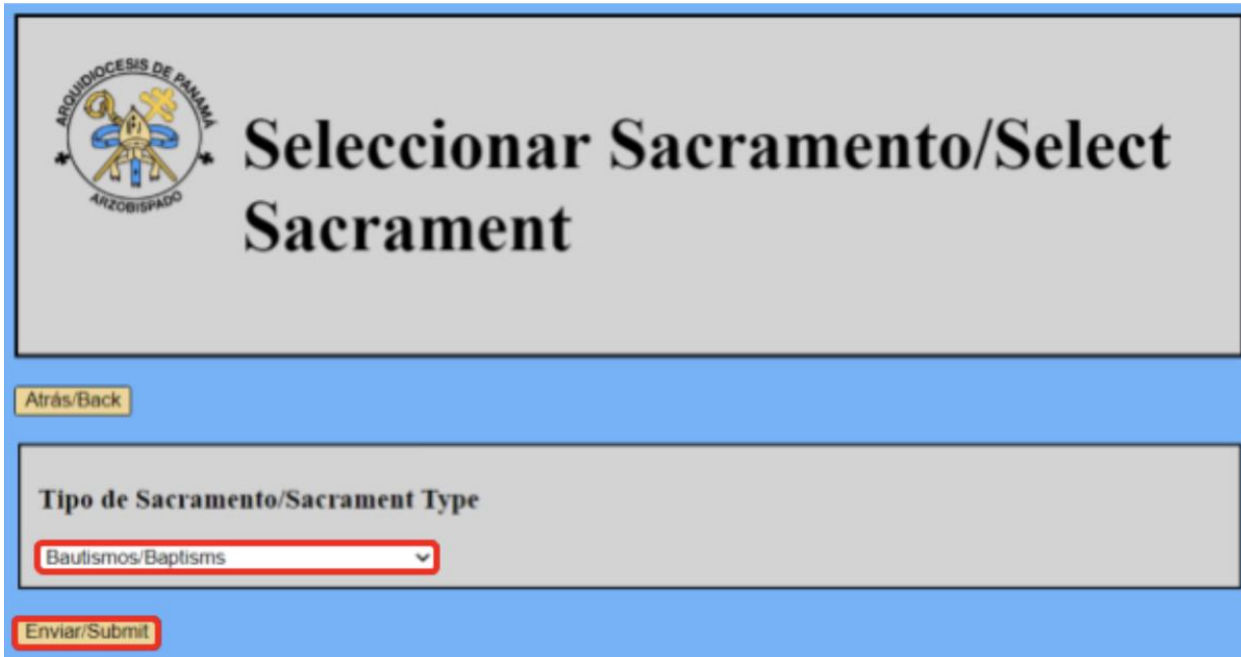
## 2.c Búsqueda de un registro

Para buscar un registro existente, no es necesario realizar pasos previos.

### 2.d.i Haga clic en Buscar

Haga clic en '**Buscar**' en la página de '**Bienvenida**'. Esto lleva al usuario a una página con la opción de seleccionar un sacramento. Después de elegir uno, haga clic en '**Enviar**'. Esto lleva al usuario a una página con campos para buscar ese sacramento específico





**Seleccionar Sacramento/Select Sacrament**

Atrás/Back

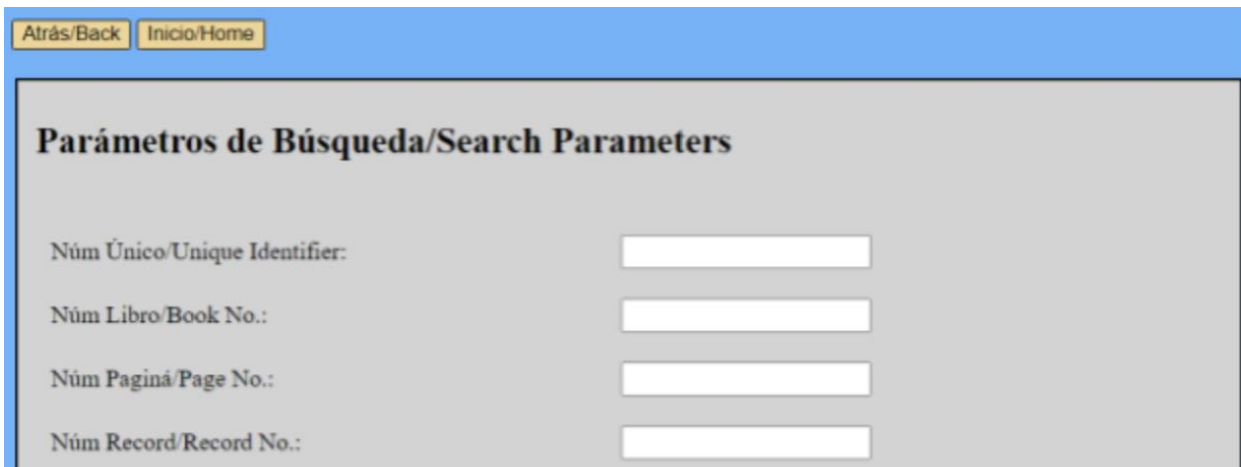
Tipo de Sacramento/Sacrament Type

Bautismos/Baptisms

Enviar/Submit

## 2.d.ii Parámetros de búsqueda de entrada

El usuario puede consultar la base de datos ingresando información en los cuadros vacíos. Dejar una casilla vacía devolverá todos los resultados de ese sacramento, ya que una entrada vacía coincide con todos los valores de la base de datos. Un consejo útil, para buscar todos los registros de un libro, escriba el número del libro en su campo y haga clic en '**Enviar**'. Esto devolverá todos los registros con ese número de libro. Los resultados de la búsqueda también se pueden ordenar mediante el menú desplegable '**¿Ordenar por?**'. Los campos con nombres o lugares están ordenados alfabéticamente. Sin embargo, para todas las consultas, ingrese la información, elija un orden de clasificación y haga clic en '**Enviar**'



Atrás/Back Inicio/Home

**Parámetros de Búsqueda/Search Parameters**

Núm Único/Unique Identifier:

Núm Libro/Book No.:

Núm Paginá/Page No.:

Núm Record/Record No.:

The image shows a search form with the following elements:

- Nomb Resgristado/Creator Name:** A text input field.
- Fecha Crear/Date Created: Comienzo/Start:** A date input field with a calendar icon, showing the format mm/dd/yyyy.
- Fecha Crear/Date Created: Fin/End:** A date input field with a calendar icon, showing the format mm/dd/yyyy.
- Ordenar por/Sort by:** A dropdown menu currently set to "Núm Único/Unique Identifier".
- Enviar/Submit:** A button highlighted with a red border.
- Atrás/Back:** A button at the bottom left.
- Inicio/Home:** A button at the bottom right.

### 2.d.iii Revisar los resultados

La página siguiente genera los resultados de búsqueda de salida de la consulta. La información sobre los registros en el resultado de la búsqueda aquí se muestra. Primero seleccione un registro haciendo clic en uno de los botones de la columna del extremo izquierdo de la tabla. A continuación, puede seleccionar una de las dos opciones de qué hacer con ese registro. Para seleccionar lo que quiere hacer con el registro, seleccione una de las dos opciones en la parte inferior. Primero, puede crear un certificado para el registro seleccionando el botón correspondiente. O puede mostrar la imagen del documento seleccionando la opción correspondiente. Una vez que se selecciona un registro y una acción, puede hacer clic en '**Enviar**' para ejecutar esa acción.

Atrás/Back Inicio/Home

Seleccionar Documento/Select Document	Núm Único/Unique Identifier	Núm Libro/Book No.	Núm Paginá/Page No.	Núm Record/Record No.	Primer Nomb/First Name
<input type="radio"/>	P0020020001	2	2	1	Rosa
<input type="radio"/>	P0020020008	2	2	8	David
<input type="radio"/>	P0020020009	2	2	9	Javier

Output Type

Crear Certificado/Create Certificate

Mostrar Imagen de Documento/Display Document Image

Enviar/Submit

Atrás/Back Inicio/Home

### 2.d.iii.1 Imprimir el certificado

Si selecciona '**Crear certificado**', será dirigido a una página con un certificado para el registro que eligió. Puede imprimir este certificado haciendo clic en "**Impresión**".

**Información del Registro/Record Information:**

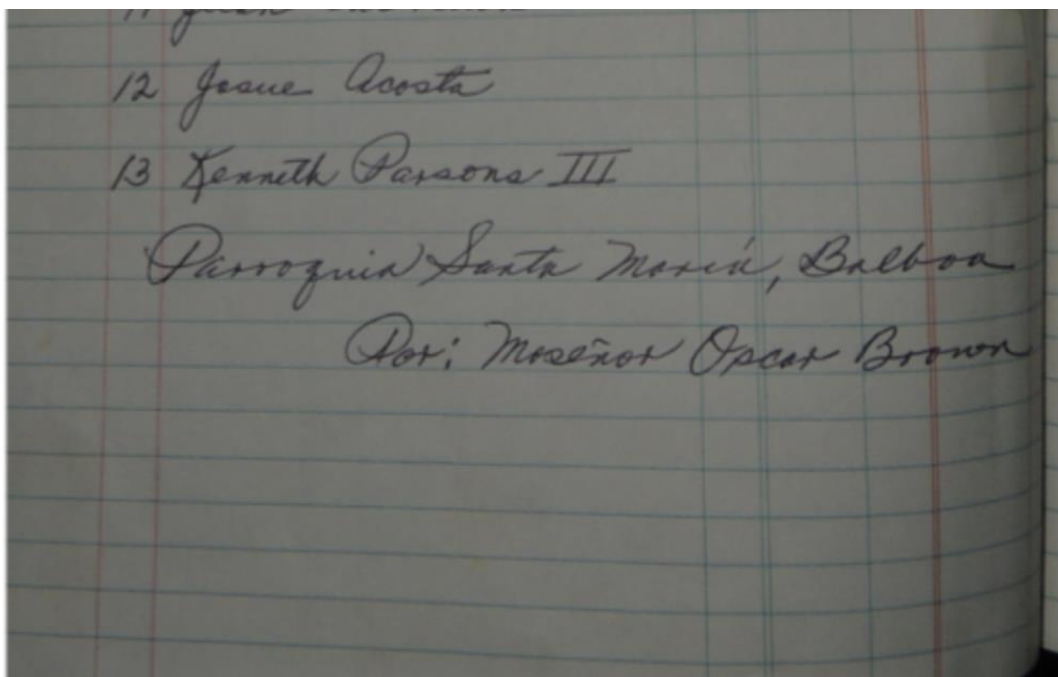
Fecha Comuni3n/Date of Communion	Lugar Comuni3n/Place of Communion	Nomb Padre/Priest's Name
1993-11-21	Parroquia Santa Maria	Oscar Brown

Firma del Sacerdote/Priest Signature: \_\_\_\_\_

Impresi3n/Print

**2.d.iii.2 Imprimir imagen de documento**

Si selecciona '**Mostrar imagen de documento**', se le dirigirá a una página con la imagen del documento que contiene el registro que eligió. Puede imprimir esta imagen haciendo clic en "**Impresi3n**".



Impresi3n/Print

## 2.d Importación de registros

Los usuarios pueden distribuir imágenes que hayan sido editadas a otros usuarios para su transcripción a una hoja de cálculo de Excel. Esa hoja de cálculo se puede utilizar para acelerar el proceso de ingresar información en la base de datos. En este momento, no hay una forma automática de hacer esto, los registros deben transcribirse de la hoja de cálculo al 'Crear' lado de la base de datos, siguiendo los pasos de la sección 2.c. Las plantillas en blanco para las hojas de cálculo se proporcionan en la carpeta 'C:\Archivos de programa\xampp\htdocs\stmddatabase\Import Templates\'. Pueden distribuirse con paquetes de imágenes y luego devolverse para que otra persona las inserte en la base de datos.

## 2.e Importación masiva de registros

En la página de inicio de la base de datos, haga clic en el botón "Importar / Importar". Esto debería llevarlo a una nueva página donde puede cargar imágenes e importar datos. Para importar datos, el archivo de Excel debe convertirse a un archivo CSV; de lo contrario, la base de datos no aceptará el archivo de datos.

Para convertir un archivo de Excel en un archivo CSV, vaya a "Archivo" en la esquina superior izquierda. Haga clic en "Guardar como", haga clic en el tipo de archivo debajo del nombre del archivo para cambiar el formato. Debería aparecer un menú desplegable y debe elegir "CSV (delimitado por comas)" para cambiarlo a un archivo .csv. Guarde el archivo CSV y asegúrese de que esté descargado para que pueda actualizar el cambio de formato.

Una vez que haya guardado y descargado un archivo CSV, haga clic en "Elegir archivo" junto a donde dice "Elegir archivo CSV". Seleccione el archivo CSV que desea importar desde su dispositivo. Una vez seleccionado, haga clic en el botón negro llamado "Importar" a la derecha. Si los datos se importan correctamente, aparecerá en su pantalla un mensaje que dice "Datos cargados correctamente". Si recibe un error que dice "Columna no puede estar vacía / La columna no puede estar vacía", entonces falta la información requerida en su archivo de Excel.

Cualquier fecha de la tabla debe tener el formato "aaaa-mm-dd" para que la importación funcione. Cada tabla necesita "Número de libro", "Número de página" y "Número de registro". Luego, el resto de los campos obligatorios difieren para cada tabla. Para los bautismos, los campos obligatorios son "Nombre", "Primer apellido", "Fecha de nacimiento", "Lugar de nacimiento", "Fecha de bautismo" y "Lugar de bautismo". Para la Comunión, los campos obligatorios son "Nombre", "Primer apellido", "Fecha de la Comunión" y "Lugar de la Comunión". Para la Confirmación, los campos obligatorios son "Nombre", "Primer Apellido", "Fecha de Confirmación" y "Lugar de Confirmación". Para los matrimonios, los campos obligatorios son "Nombre del esposo", "Primer apellido del esposo", "Nombre de la esposa", "Primer apellido de la esposa", "Fecha de matrimonio" y "Lugar del matrimonio". Para las defunciones, los campos obligatorios son "Nombre", "Primer apellido", "Fecha de fallecimiento", "Lugar de residencia", "Fecha de entierro" y "Lugar de entierro". Complete la información que falta, vuelva a descargar el archivo de Excel como un archivo CSV, luego intente importar el archivo CSV nuevamente. Si el archivo no es un archivo CSV, aparecerá un mensaje de error que dice "Archivo no válido. Cargar: archivos .csv ". Asegúrese de que el archivo sea un archivo CSV e intente importarlo nuevamente.

Para cargar imágenes, asegúrese de que las imágenes estén en formato JPEG o PNG y que estén descargadas en su dispositivo. Haga clic en "Elegir archivo" junto a "Cargar imágenes" y seleccione las imágenes que desee de su dispositivo. Luego, haga clic en el botón negro llamado "Iniciar carga" a la derecha. Debería recibir un mensaje que diga "Imágenes cargadas correctamente" si las imágenes se cargaron correctamente. Si no carga el formato de imagen correcto, recibirá un mensaje de error que dice "Esta extensión de archivo no está permitida. Sube un archivo JPEG o PNG ". Asegúrese de que las imágenes seleccionadas estén en formato

JPEG o PNG. Cuando haya terminado de importar / cargar, haga clic en el botón negro llamado "Inicio / Inicio" en la parte inferior para volver a la página de inicio de la base de datos.



## 3 Operación especial

Este capítulo describe en detalle cómo instalar el software prerequisite que se requiere para ejecutar los Archivos Digitales de Santa María. También describe cómo hacer una copia de seguridad y restaurar el software desde un disco duro externo. Esta sección es para usuarios avanzados. Ninguno de estos procesos debe completarse sin leer detenidamente estas instrucciones.

### 3.a Instalación

Hay muchos pasos para instalar los Archivos Digitales, la mayoría de ellos están relacionados con el software prerequisite y la creación de nuevos usuarios en la base de datos.

#### 3.a.i Instalar XAMPP como administrador

XAMPP es una pila de soluciones que incluye Apache, PHP y MariaDB (una bifurcación gratuita y de código abierto de MySQL), así como el software de base de datos phpMyAdmin.

##### 3.a.i.1 Descargue el instalador de XAMPP

Comience descargando el instalador de XAMPP más reciente de su sitio web, <https://www.apachefriends.org/index.html>. Una vez que termine, abra la carpeta de descargas, haga clic derecho sobre ella y seleccione '**Ejecutar como administrador**'.

##### 3.a.i.2 Ignorar advertencia

En el primer cuadro de diálogo que aparece, haga clic en "**Aceptar**" para descartar la advertencia. Luego haga clic en siguiente.

##### 3.a.i.3 Seleccionar software para instalar

Esta pantalla presenta una lista de software que viene con XAMPP. Solo marque las casillas de Apache, MySQL, PHP, Perl y phpMyAdmin. Luego haga clic en siguiente.

#### **3.a.i.4 Cree una carpeta nueva en 'C:\Archivos de programa\xampp\'**

Ahora elija una carpeta para instalar XAMPP. Vaya a 'C:\Archivos de programa\' en el selector de carpetas dentro del instalador de XAMPP y cree una nueva carpeta llamado 'xampp'. Esta es la carpeta donde se instalará XAMPP. Seleccione 'C:\Archivos de programa\xampp\' y luego haga clic en siguiente.

#### **3.a.i.5 Pasos finales**

Seleccione inglés como idioma para el software. Haga clic en siguiente, luego anule la selección del cuadro que pregunta sobre Bitnami. Haga clic en siguiente y luego instale el software. Al final de la instalación, no ejecute el panel de control XAMPP, salga del instalador.

#### **3.a.ii Ejecute Apache y MariaDB como servicios de Windows**

Ahora configure los servicios de Windows para que Apache y MariaDB se inicien y se ejecuten automáticamente cada vez que se inicie XAMPP.

##### **3.a.ii.1 Inicie el Panel de control de XAMPP**

Siempre que se ejecute el Panel de control de XAMPP, debe ser como un usuario con derechos de administrador. Vaya al menú Inicio, luego desplácese a una carpeta con la etiqueta 'XAMPP' en la lista de aplicaciones. Abra esa carpeta, haga clic con el botón derecho en 'Panel de control de XAMPP' y seleccione 'Más' > 'Ejecutar como administrador'. Después de confirmar esa elección, se iniciará el panel de control XAMPP.

##### **3.a.ii.2 Inicie Apache**

Inicie Apache por primera vez haciendo clic en "**Iniciar/Start**" en la línea de Apache. Luego haga clic en "**Permitir/Allow**".

### 3.a.ii.3 Inicie MariaDB

Inicie MariaDB por primera vez haciendo clic en "**Iniciar/Start**" en la línea de MySQL. Luego haga clic en "**Permitir/Allow**".

### 3.a.ii.4 Detener Apache y MariaDB

Ahora que ambos servicios funcionan cuando se inician manualmente, se pueden configurar para que se inicien automáticamente. Haga clic en '**Stop**' en las líneas de Apache y MySQL.

### 3.a.ii.5 Instalarlos como servicios de Windows

Una vez que se hayan detenido, haga clic en la X roja junto a Apache y MySQL para instalar ambos como servicios de Windows. Haga clic en '**Yes**' en el siguiente cuadro de diálogo para cada uno.

ESTE PASO PUEDE NO SER NECESARIO EN NUEVAS VERSIONES.

### 3.a.ii.6 Pasos finales

Ahora haga clic en '**Config**' en el Panel de control de XAMPP. En la sección que describe los módulos de inicio automático, marque las casillas de Apache y MySQL. Confirma ese cambio. Para probarlo, reinicie XAMPP con privilegios administrativos y observe si se inician automáticamente.

### 3.a.iii Establecer la contraseña raíz de la base de datos

De forma predeterminada, MariaDB y phpMyAdmin no tienen una contraseña raíz o una contraseña en la cuenta que controla el servidor de la base de datos. Esto absolutamente debe configurarse antes de hacer cualquier otra cosa.

### 3.a.iii.1 Inicie phpMyAdmin

En el Panel de control de XAMPP, haga clic en '**Admin**' en la línea MySQL. Esto lanza phpMyAdmin. También se puede acceder a phpMyAdmin escribiendo '<http://localhost/phpmyadmin/>' en un navegador web.

### 3.a.iii.2 Haga clic en User Accounts

La primera pantalla que se muestra es la pantalla de inicio. En esa página, haga clic en el botón en el banner superior llamado '**User Accounts**'

### 3.a.iii.3 Cambiar la contraseña de root

Hay tres cuentas con el nombre de usuario 'root'. Cada uno de ellos debe tener la misma contraseña y cada uno de ellos debe cambiarse manualmente. Para el primero, haga clic en '**Edit privileges**', luego haga clic en el botón en la parte superior que dice '**Change password**'. Ingrese una contraseña dos veces y luego haga clic en Ir. Repita esto para los otros dos usuarios 'root'. Escriba esta contraseña en algún lugar y guárdela en un lugar seguro cerca de la computadora que ejecuta los Archivos Digitales. Una vez hecho esto, salga de phpMyAdmin y detenga Apache, MariaDB y XAMPP.

### 3.a.iii.4 Ejecutar el Bloc de notas

phpMyAdmin debe configurarse manualmente para requerir una contraseña para todos los usuarios. Vaya al menú Inicio y en la lista de programas vaya a '**Accesorios de Windows**' > '**el Bloc de notas**'. Haga clic derecho en eso y vaya a '**Más**' > '**Ejecutar como administrador**'.

### 3.a.iii.5 Edite el archivo de configuración en el Bloc de notas

Haga clic en "Archivo"> "Abrir", luego haga clic donde dice "Documentos de texto (.txt)" y seleccione "Todos los archivos" en el menú desplegable para mostrar todos los archivos. Esto se debe a que "config.inc.php" no tiene la extensión de archivo ".txt". Ahora, abra el archivo en "C:\ Archivos de programa xampp\phpmyadmin\config.inc.php".

Luego, edite la línea que dice

```
$cfg['server'][$i]['auth_type'] = 'config'
```

para leer

```
$cfg['server'][$i]['auth_type'] = 'cookie'
```

Editar la línea que dice

```
$cfg['server'][$i]['AllowNoPassword'] = 'true'
```

para leer

```
$cfg['server'][$i]['AllowNoPassword'] = 'false'
```

Guarde el archivo y salga del Bloc de notas.

### **3.a.iii.6 Reinicie XAMPP**

Reinicie XAMPP como en el paso 3.a.ii.1. Apache y MariaDB deberían iniciarse automáticamente si se siguieron los pasos de la sección 3.a.ii. Si no es así, inicie como en los pasos 3.a.ii.2 y 3.a.ii.3. Inicie phpMyAdmin como en el paso 3.a.iii.1. Ingrese 'root' para el nombre de usuario y la contraseña que ingresó en el paso 3.a.iii.3 para la contraseña.

### **3.a.iv Inicializar los Archivos Digitales**

Esta sección solo debe realizarse si no hay una copia de seguridad utilizable desde la cual restaurar el software. Hacer este paso generará una base de datos en blanco sin registros ni imágenes.

#### **3.a.iv.1 Descargar desde GitLab**

Descargue los archivos en el repositorio en '<https://gitlab.com/st.-mary-s-iqp/database>'. Un desarrollador de este software puede tener que iniciar sesión en su cuenta para hacer esto si el repositorio no es público. Haga clic en Base de datos en el medio de la página, aparecerá una nueva ventana. En la parte superior derecha hay un botón de descarga, haga clic en la flecha y asegúrese de descargar como zip.

### 3.a.iv.2 Extraiga el archivo

Extraiga los archivos del archivo '.zip' en una carpeta llamada 'stmdatabase'. La "stmdatabase" ya es un archivo que existe en la descarga.

### 3.a.iv.3 Copiar archivos

Copie la carpeta llamada 'stmdatabase' en otra carpeta llamada 'C:\Archivos de programa\xampp\htdocs\'. Es posible que se requieran derechos administrativos.

### 3.a.iv.4 Crear el acceso directo en el escritorio

Cree un acceso directo en el escritorio para los Archivos Digitales. Haga clic derecho en el escritorio y seleccione '**Nuevo**' > '**Acceso directo**'. Escriba '<http://localhost/stmdatabase/index.php>' en el primer cuadro y luego asígnele un nombre en el segundo cuadro.

### 3.a.iv.5 Inicie phpMyAdmin

Inicie phpMyAdmin como en el paso 3.a.iii.1 e inicie sesión en phpMyAdmin como usuario root.

### 3.a.iv.6 Haga clic en Importar

Haga clic en el botón en el banner superior llamado '**Import**'. La nueva instalación del software viene con un archivo para importar a phpMyAdmin para inicializar la base de datos.

### 3.a.iv.7 Busque el archivo

Busque el archivo de base de datos en blanco en 'C:\Archivos de programa\xampp\htdocs\stmdatabase\stmary.sql'. No seleccione otras opciones en esta página y haga clic en '**Go**' en la parte inferior de la página. Esto inicializa la base de datos para que pueda ser utilizada por los Archivos Digitales.

### 3.a.v Crear cuatro nuevos usuarios

Cuatro nuevos usuarios en phpMyAdmin tienen que ser creado a fin de que los Archivos Digitales para el trabajo. Son el usuario general, el usuario de las copias de seguridad, el usuario de las restauraciones y el usuario a eliminar. El proceso para crear cada usuario es el mismo, sin embargo, los nombres de usuario, las contraseñas y los privilegios no lo son. Esta sección creará el usuario general, y estos pasos se pueden repetir para la copia de seguridad, restauración y eliminación de usuarios con la información proporcionada al final de esta sección.

#### 3.a.v.1 Inicie phpMyAdmin

Inicie phpMyAdmin como en el paso 3.a.iii.1 e inicie sesión en phpMyAdmin como usuario root.

#### 3.a.v.2 Haga clic en Cuentas de usuario

Haga clic en el botón en el banner superior llamado '**User accounts**'.

#### 3.a.v.3 Haga clic en agregar cuenta de usuario

En la página siguiente, haga clic en '**Add user account**' debajo de la tabla de usuarios existentes. Aparece una nueva ventana para establecer la configuración de autenticación para la nueva cuenta.

Para este usuario

Username = Mary

Hostname = localhost

Password = StMarysIQPA20

No marque otras casillas y haga clic en '**Go**'.

#### 3.a.v.4 Haga clic en Inicio

Haga clic en el **Inicio** icono en la esquina superior izquierda de phpMyAdmin.

### **3.a.v.5 Haga clic en Cuentas de usuario**

Haga clic en el botón en el banner superior llamado **'User accounts'**.

### **3.a.v.6 Editar privilegios para el nuevo usuario**

En la línea del nuevo usuario, 'Mary', haga clic en **'Edit privileges'**.

### **3.a.v.7 Haga clic en Base de datos**

En la página siguiente, haga clic en el botón debajo del banner superior llamado **'Databases'**.

### **3.a.v.8 Seleccione la base de datos**

Seleccione 'stmary' de la lista de bases de datos y haga clic en **'Go'**.

### **3.a.v.9 Seleccione los permisos para el usuario**

En la siguiente pantalla, marque las casillas de 'SELECT', 'INSERT' y 'LOCK TABLES' solamente. Estos permisos son diferentes entre diferentes usuarios. Haga clic en **'Go'**.

### **3.a.v.10 Repita para otros usuarios con nueva información**

Repita estos pasos para crear dos nuevos usuarios. La información para cada uno es

Usuario de respaldo:

Nombre de usuario = root\_backup

Nombre de host = localhost

Contraseña = StMarysParishA20

Permisos = SELECT, LOCK TABLES

Restaurar usuario:

Nombre de usuario = root\_restore

Nombre de host = localhost

Contraseña = sTmARYSpARISHa20

Permisos = INSERT, SELECT, CREATE, ALTER, DROP, LOCK TABLES



Eliminar Usuario:

Nombre de usuario = root\_delete

Nombre de host = localhost

Contraseña = Maryhadalittlelamb710

Permisos = SELECT, DELETE, LOCK TABLES

### **3.a.vi Inicio automático de XAMPP**

Ahora que se ha completado toda la configuración de XAMPP, se puede configurar para que se inicie en segundo plano para todos los usuarios que inicie sesión en la computadora.

#### **3.a.vi.1 Presione 'win + r'**

Presione 'win + r' (la tecla de Windows y la tecla 'R') al mismo tiempo para iniciar el cuadro de diálogo Ejecutar. Escriba 'taskschd.msc' en el cuadro de diálogo y luego presione 'Ctrl + Shift + Enter' para ejecutarlo como administrador.

#### **3.a.vi.2 Importar una tarea**

Este es el programador de tareas para Windows. Se utilizará para iniciar XAMPP automáticamente. En el panel derecho, haga clic en '**Importar tarea**'.

#### **3.a.vi.3 Navegar hasta Archivo**

Navegue hasta 'C:\Archivos de programa\xampp\htdocs\stmdatabase\xamppautostarttask.xml' y selecciónelo. En la pestaña "General" en la sección "Opciones de seguridad", haga clic en "Cambiar usuario o grupo ...", luego, en el cuadro de texto, escriba el usuario en la computadora que tiene privilegios administrativos (puede encontrar este nombre de usuario yendo a "C: \ Usuarios \ " en el Explorador de Windows. Si conoce su computadora lo suficientemente bien, debería ser fácil deducir qué usuarios son usuarios estándar y cuáles son usuarios administradores). Haga clic en "Comprobar nombres" junto a ese cuadro para verificar que el usuario existe, luego haga clic en "Aceptar" y "Aceptar" de nuevo. No realizar este paso configuraría incorrectamente al usuario que ejecuta la tarea. Acepte y guarde esa opción. Cierre la sesión y vuelva a iniciar sesión, luego

navegue a la página de 'Bienvenida' para verificar que XAMPP se inició automáticamente. Esta sección se completará con éxito si el software se inicia sin más pasos.

### **3.a.vii Configurar Powershell**

Windows aún debe configurarse para ejecutar scripts de Powershell locales sin firmar. Este software aprovecha dos scripts de Powershell que fueron creados por el equipo de IQP. Realizan copias de seguridad y restauran los Archivos Digitales.

#### **3.a.vii.1 Ejecutar Powershell**

Para comenzar, ejecute Powershell como administrador. Vaya al menú Inicio y vaya a '**Windows Powershell**' > '**Windows Powershell**'. Luego, haga clic derecho en '**Windows Powershell**' y seleccione '**Más**' > '**Ejecutar como administrador**'. Esto abrirá un símbolo del sistema para Powershell.

#### **3.a.vii.2 Verifique la política de ejecución actual**

En Powershell, escriba 'Get-ExecutionPolicy' y luego presione 'Enter' para verificar cuál es la política actual. De forma predeterminada, debería estar 'Restringido'.

#### **3.a.vii.3 Establezca el nuevo política de ejecución**

Escriba 'Set-ExecutionPolicy -ExecutionPolicy RemoteSigned' y presione 'Enter' para cambiar la política de ejecución en Windows para permitir que los scripts de Powershell escritos localmente se ejecuten sin la firma de una autoridad de certificación.

#### **3.a.vii.4 Verifique el nuevo política de ejecución**

Escriba 'Get-ExecutionPolicy' y presione 'Enter' nuevamente para asegurarse de que se haya configurado correctamente. Esta vez, debería imprimir 'RemoteSigned'. Una vez hecho esto, el software está listo para ser utilizado.

### 3.b Mantenimiento

Esta sección describe cómo realizar el mantenimiento general de los Archivos Digitales. Aquí, se describe el proceso para hacer una copia de seguridad de las imágenes y la base de datos, así como para restaurar la última base de datos guardada y el archivo de imágenes. El proceso para eliminar registros también se describe aquí.

#### 3.b.i Copia de seguridad en un destino externo

Hacer una copia de seguridad de las imágenes y la base de datos en un destino externo es una parte importante para garantizar que se conserve la información de la base de datos. Se deben realizar copias de seguridad periódicas en el orden de cada semana durante el tiempo que se ingresen nuevos datos en la base de datos. La unidad de copia de seguridad física debe almacenarse en otro edificio, separado de la base de datos maestra, excepto cuando se realiza la copia de seguridad. Este proceso de copia de seguridad copia todo dentro de la carpeta 'C:\Archivos de programa\xampp\htdocs\stmdatabase' en la unidad de copia de seguridad. Exporta la base de datos a un archivo en esta carpeta, luego copia el contenido de esa carpeta que incluye imágenes y páginas web a la unidad de respaldo.

##### 3.b.i.1 Haga clic en Administración.

En la página de '**Bienvenido**', haga clic en '**Administración**' para ver la página con las herramientas administrativas de este software. Para ejecutar una copia de seguridad, haga clic en '**Hacer una copia**' en la página de '**Administración**'. Después de montar el disco duro externo, use el Explorador de archivos para ubicar la carpeta donde se guardará la copia de seguridad.




## Página de inicio de los archivos digitales de Santa María/Start page for the St. Mary's Digital Archives

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

Crear/Create
Buscar/Search
Importar/Import

Administración/Admin
Agradecimientos/Acknowledgements



## Administración/Admin

**¡Advertencia! Cualquier operación realizada aquí afectará la base de datos. Utilice esta página únicamente si sabe lo que está haciendo, e incluso entonces tenga cuidado.**

**Warning! Any operations performed here will impact the database. Only use this page if you know what you are doing, and even then use caution.**

**Hacer una copia de seguridad de la base de datos/Backup the Database**

[Hacer una copia/Backup](#)

**Restaurar la base de datos/Restore the Database**

[Restaurar/Restore](#)

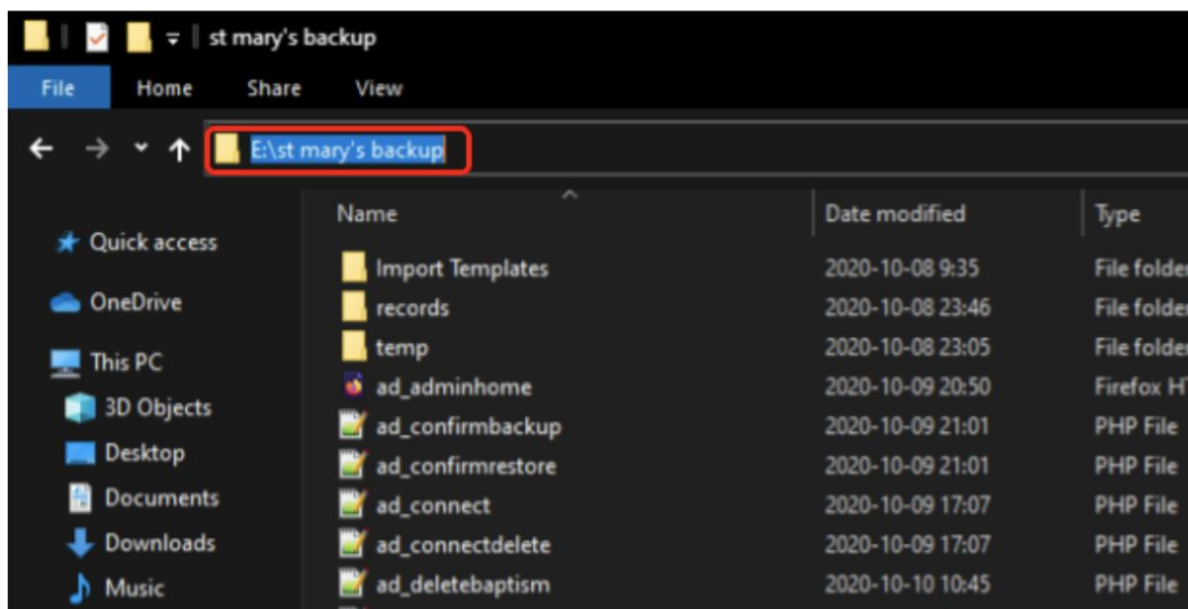
**Eliminar un registro de la base de datos/Delete a record from the database**

[Eliminar/Delete](#)

**Volver a la página de inicio/Return to the start page**

### 3.b.i.2 Ingrese la ruta a la unidad externa

Copie y pegue la ruta en la barra de direcciones en el Explorador de archivos o escriba la ruta directamente en el cuadro de texto con el formato "[letra de unidad]:\ruta\a\directorio" debajo del encabezado 'Copia de seguridad' en la página de 'Administración'.



Escriba o pegue la ruta al directorio de origen de la copia de seguridad en el cuadro a continuación. La carpeta ya debe existir y debe tener el formato [letra de unidad]:\ruta\a\directorio, por ejemplo, E:\juan\copias de seguridad\la base de datos de st marys

Type or paste the path to the backup source directory in the box below. The folder must already exist, and it should be in the form [drive letter]:\path\to\directory, for example, E:\john\backups\st mary's database

**¡Aviso!** El proceso de copia de seguridad no es instantáneo y puede tardar hasta seis horas si hay una gran cantidad de nuevos registros e imágenes. Tenga paciencia, esta página no se actualizará una vez que se presione el botón. La página continuará cargándose (consulte la pestaña de esta página y el botón de actualización en el navegador) hasta que finalice el proceso. Se mostrará una página de estado cuando la secuencia de comandos haya tenido éxito, haya fallado o haya agotado el tiempo de espera. Si el proceso de copia de seguridad se agota (a las 6 horas), vuelva a esta página y vuelva a ejecutar la copia de seguridad con la misma carpeta. El script reiniciará la copia de seguridad donde se detuvo y finalizará normalmente.

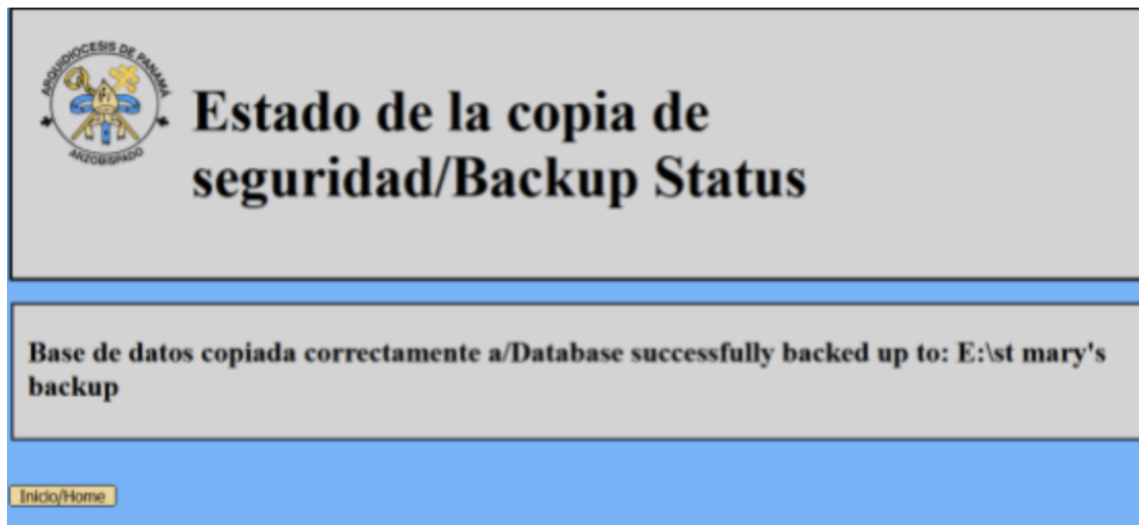
**Notice!** The backup process is not instantaneous and may take up to six hours if there are a large amount of new records and images. Be patient, this page will not refresh once the button is pressed. The page will continue to load (see the tab for this page and the refresh button in the browser) until the process finishes. A status page will be displayed when either the script succeeded, failed, or timed out. If the backup process times out (at 6 hours), return to this page and run the backup again with the same folder. The script will restart the backup where it had stopped and finish normally.

Hacer una copia de seguridad de archivos en/Backup files to:

### 3.b.i.3 Pasos finales

Una vez hecho esto, haga clic en '**Hacer una copia**'. Hacer esto ejecutará un script de Powershell en segundo plano y descargará la base de datos y las imágenes a la unidad externa. Este proceso puede llevar algún tiempo dependiendo de cuántos archivos haya. Si tarda mucho tiempo, puede fallar silenciosamente y no alertar al usuario en el software directamente. Si esto falla, la copia de seguridad se puede ejecutar manualmente desde un indicador de Powershell abierto en 'C:\Archivos de programa\xampp\htdocs\stmdatabase' con privilegios administrativos. El comando es '`.\stmarysbackup.ps1 -destdir <ruta del paso 3.b.i.2>`'. La ruta no está entre corchetes angulares, pero debe escribirse con un par de comillas, por ejemplo

`.\stmarysbackup.ps1 -destdir "E:\ruta\a\carpeta de respaldo"`



### 3.b.i.4 Opción de copia de seguridad alternativa

Para hacer una copia de seguridad de los datos, vaya a <http://localhost/phpmyadmin/index.php>. A continuación, haga clic en la base de datos de la izquierda llamada "stmary". Haga clic en "Export" en la parte superior y en "Export Method", haga clic en "Custom -display all possible options". Debería aparecer una nueva sección llamada "Tables". En "Tables", desmarque la casilla que dice "Structure" en la parte superior. Esto debería deseleccionar la estructura de cada tabla. Asegúrese de que la casilla de "Data" está marcada para cada tabla, ya que estaremos haciendo una copia de seguridad de los datos. A continuación, desplácese hacia abajo y haga clic en "Go". Se descargará un archivo llamado "stmary.sql" en su dispositivo. Este archivo contiene una copia de seguridad de los datos que estaban en la base de datos. Mantenga este archivo seguro ya que se utilizará para la copia de seguridad.

Para importar el archivo de respaldo, vaya a <http://localhost/phpmyadmin/index.php>. A continuación, haga clic en la base de datos de la izquierda llamada "stmary". Para cada tabla, haga clic en "Empty" para vaciar los datos. Aparecerá una ventana emergente diciendo que "TRUNCATE" la mesa. Haga clic en "Ok" y proceda a hacerlo con el resto de tablas. Esto asegurará que el archivo de respaldo se importe correctamente. Haga clic en "Import" en la parte superior. En "File to Import", haga clic en el botón llamado "Choose File" y elija el archivo descargado anteriormente cuando exportamos los datos. A continuación, haga clic en "Go" y los datos se volverán a importar a la base de datos.

### 3.b.ii Restaurar desde una fuente externa

En caso de que las imágenes y la base de datos se dañen o se vuelve inutilizable, el software se puede restaurar desde una fuente externa. Por convención, esta fuente es la copia de seguridad que se creó en la sección 3.b.i

#### 3.b.ii.1 Haga clic en Administración.

En la página de bienvenida, haga clic en '**Administración**' para ver la página con herramientas administrativas. Para restaurar los Archivos Digitales desde una copia de seguridad, utilice el segundo campo bajo el título "**Restaurar**". Después de montar el disco duro externo, use el Explorador de archivos para ubicar la carpeta donde se guarda la copia de seguridad.




 **Página de inicio de la base de datos de St. Mary/Start page for St. Mary's Database**

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

[Crear/Create](#) [Buscar/Search](#)

[Administración/Admin](#) [Agradecimientos/Acknowledgements](#)



## Administración/Admin

**¡Advertencia! Cualquier operación realizada aquí afectará la base de datos. Utilice esta página únicamente si sabe lo que está haciendo, e incluso entonces tenga cuidado.**

**Warning! Any operations performed here will impact the database. Only use this page if you know what you are doing, and even then use caution.**

Hacer una copia de seguridad de la base de datos/Backup the Database

Hacer una copia/Backup

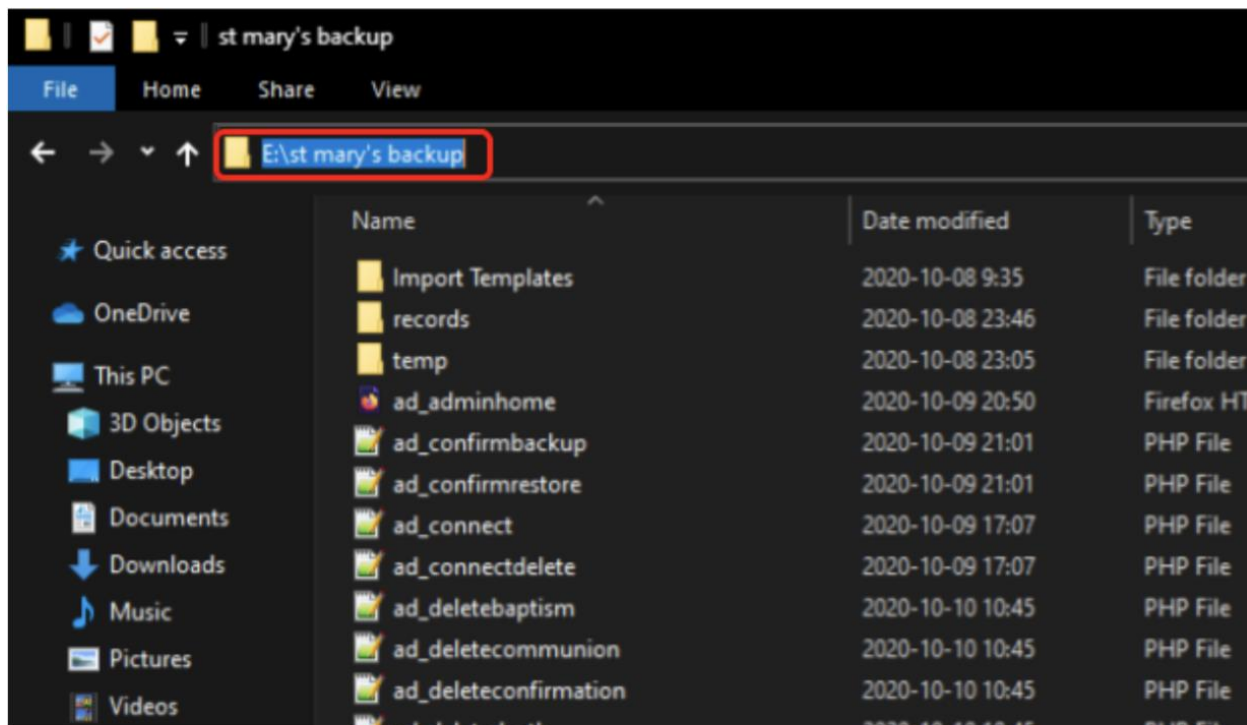
Restaurar la base de datos/Restore the Database

Restaurar/Restore

### 3.b.ii.2 Tipo de pegar la ruta a la unidad externa

Copie y pegue la ruta en la barra de direcciones en el Explorador de archivos o escriba la ruta directamente en el cuadro de texto debajo del encabezado '**Restaurar**' en la página de '**Administración**'.





Escriba o pegue la ruta al directorio de origen de la copia de seguridad en el formulario [letra de unidad]:\ruta \al directorio, por ejemplo, E:\Juan\copias de seguridad\la base de datos de st marys

Type or paste the path to the backup source directory in the form [drive letter]:\path\to\directory, for example, E:\John\backups\st mary's database

**¡Aviso!** El proceso de restauración no es instantáneo y puede tardar hasta seis horas. Tenga paciencia, esta página no se actualizará una vez que se presione el botón. La página continuará cargándose (consulte la pestaña de esta página y el botón de actualización en el navegador) hasta que finalice el proceso. Se mostrará una página de estado cuando la secuencia de comandos haya tenido éxito, haya fallado o haya agotado el tiempo de espera. Si el proceso de restauración se agota (a las 6 horas), regrese a esta página e intente restaurar nuevamente desde la misma carpeta. El script reiniciará el proceso de restauración donde se detuvo y finalizará normalmente

**Notice!** The restore process is not instantaneous and may take up to six hours. Be patient, this page will not refresh once the button is pressed. The page will continue to load (see the tab for this page and the refresh button in the browser) until the process finishes. A status page will be displayed when either the script succeeded, failed, or timed out. If the restore process times out (at 6 hours), return to this page and try restoring again from the same folder. The script will restart the restore process where it had stopped and finish normally

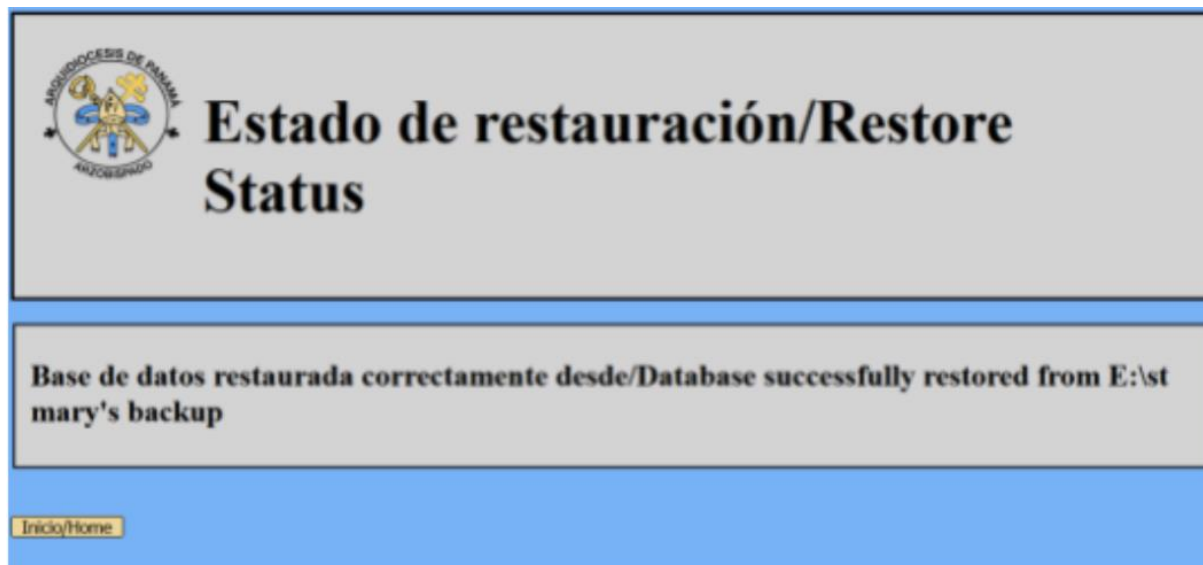
Restaurar archivos de/Restore files from:

### 3.b.ii.3 Haga clic en ir

Una vez hecho esto, haga clic en '**Restaurar**'. Al hacer esto, se ejecutará un script de PowerShell en segundo plano y se restaurará la última versión de la base de datos y las imágenes que fueron respaldadas en la computadora. Este proceso puede llevar algún tiempo dependiendo de cuántos archivos haya. Si tarda mucho tiempo, puede fallar silenciosamente y no alertar al usuario en el software directamente. Si esto falla, la restauración se puede ejecutar manualmente

desde un indicador de Powershell abierto en 'C:\Archivos de programa\xampp\htdocs\stmdatabase' con privilegios administrativos. El comando es '.\stmarysrestore.ps1 -sourcedir <ruta del paso 3.b.ii.2>'. La ruta no está entre corchetes angulares, pero debe escribirse con un par de comillas, por ejemplo

```
.\stmarysrestore.ps1 -sourcedir "E:\ruta\a\carpeta de respaldo"
```



### 3.b.iii Eliminar registro de la base de datos

En caso de que haya un registro se ha introducido incorrectamente, se puede eliminar de la base de datos. **Advertencia**, una vez que se ha eliminado un registro, no se puede recuperar. Para volver a crear un registro eliminado, debe volver a ingresar con la herramienta de inserción.

#### 3.b.iii.1 Haga clic en Administración.

En la página de bienvenida, haga clic en '**Administración**' para ver la página con herramientas administrativas. Para eliminar un registro de la base de datos, utilice el tercer campo bajo el encabezado denominado "**Eliminar**".



**Página de inicio de la base de datos  
de St. Mary/Start page for St. Mary's  
Database**

¿Le gustaría crear un nuevo registro o buscar un existente?/Would you like to create a new record or search for an existing one?

**¡Advertencia! Cualquier operación realizada aquí afectará la base de datos. Utilice esta página únicamente si sabe lo que está haciendo, e incluso entonces tenga cuidado.**

**Warning! Any operations performed here will impact the database. Only use this page if you know what you are doing, and even then use caution.**

Hacer una copia de seguridad de la base de datos/Backup the Database

Restaurar la base de datos/Restore the Database

Eliminar un registro de la base de datos/Delete a record from the database

Volver a la página de inicio/Return to the start page

### 3.b.iii.2 Tipo de pegar la ruta a la unidad externa

Primero seleccione el tipo de sacramento del registro que desea eliminar usando el menú desplegable. A continuación, introduzca el identificador único del registro que desea eliminar (por ejemplo, B0120120123, F1231231234). Esto se puede encontrar buscando el registro y mirando la segunda columna de la tabla de resultados. Una vez que se selecciona el tipo de sacramento y se ingresa el identificador único, haga clic en '**Eliminar**'.

Atrás/Back

**¡Advertencia!/Warning!**

Esta página se puede utilizar para ubicar un registro para eliminar en la base de datos. Utilice esta función con extrema precaución. Si se encuentra un registro, se mostrará una vista previa del registro y una aparecerá un mensaje de confirmación. Solo los usuarios avanzados deben usar esta página. Eliminar un registro no elimine la imagen que está almacenada en el disco duro. Nuevamente, tenga mucho cuidado con esta función.

This page can be used to locate a record to delete in the database. Use this function with extreme caution. If a record is found, a preview of the record will be displayed and an additional confirmation message will appear. Only advanced users should use this page. Deleting a record does not delete the image that is stored on the hard drive. Again, use extreme caution with this function.

**Tipo de Sacramento/Sacrament Type**

Bautismos/Baptisms  NÚM ÚNICO/Unique Identifier

Eliminar/Delete

### 3.b.iii.3 Verificar los detalles del registro

La eliminación llevará al usuario a una página de estado que imprime toda la información del registro. Se le pedirá al usuario que verifique la exactitud de la información en el registro. En este punto, el usuario tiene dos opciones. Uno, confirme la eliminación del registro. En ese caso, haga clic en 'Sí' y el registro se eliminará. Dos, regrese y elimine un registro diferente. En ese caso, haga clic en 'No' y volverá a la página anterior.

Información del Feligrés/Parishoner Information:					
Primer Nomb/First Name	Segundo Nomb/Second Name	Primer Apellido/First Surname	Segundo Apellido/Second Surname	Sufijo/Suffix	Cédula/Identification Card
Rosa	None	Naranjo	None	None	None

Información del Registro/Record Information:		
Fecha Comunión/Date of Communion	Lugar Comunión/Place of Communion	Nomb Padre/Priest's Name
1993-11-21	Parroquia Santa Maria	Oscar Brown

**¿Está seguro de que desea eliminar este registro de la base de datos?/Are you sure you want to delete this record from the database?**

Si/Yes  No

### 3.b.iii.4 Haga clic en Ir

La eliminación llevará al usuario a una página de estado que imprime un ID de registro y le pregunta qué le gustaría hacer a continuación. En este punto, el usuario tiene tres opciones. Uno, borre otro registro. En ese caso, haga clic en '**Eliminar otro**' y vuelva a la sección 3.b.iii.2. Dos, inserte un nuevo registro para reemplazar el que fue eliminado. En ese caso, haga clic en '**Insertar nueva**' y vaya a la sección 2.c.iii. Tres, regrese a la página de inicio. En ese caso, haga clic en '**Inicio**' y vaya a la página de inicio.

**Record P0020020001 ha sido eliminado: ¿Qué le gustaría hacer a continuación?/Record P0020020001 has been deleted: What would you like to do next?**

**Eliminar otro registro/Delete another record:**

[Eliminar Otro/Delete Another](#)

**Insertar un registro correcto/Insert a correct record:**

[Insertar Nueva/Insert New](#)

**Volver a la página de bienvenida/Go back to welcome page:**

[Inicio/Home](#)

## 4 Resumen de ubicaciones de archivos y términos

### 4.a Software

XAMPP = plataforma cruzada(X) (A)pache (M)ySQL (P)HP y (P)erl, el software que agrupa e instala estos servicios.

Apache = Una implementación de servidor web http que ejecuta páginas PHP y HTML.

MySQL = Una implementación del lenguaje de consulta estructurado, SQL. Este es un nombre inapropiado ya que XAMPP ya no usa MySQL sino una bifurcación de ese proyecto llamado MariaDB.

MariaDB = Una implementación del lenguaje de consulta estructurado, SQL. Esta es una versión gratuita y de código abierto de ese lenguaje que se ha bifurcado desde MySQL. Sin embargo, todavía es casi 100% compatible con MySQL.

PHP = PHP Hypertext Preprocessor, ejecuta la lógica entre el usuario y la base de datos.

HTML = HyperText Markup Language, es el lenguaje utilizado para representar las páginas web.

Localhost = El nombre de alojamiento del servidor web local, si se escribe en la barra de direcciones de un navegador web, el navegador web busca en el directorio localhost un archivo llamado 'index.php'. Este software está instalado dentro de ese directorio.

phpMyAdmin = Una herramienta de administración de bases de datos para MySQL y MariaDB, viene incluida con XAMPP. Se puede acceder desde el Panel de control de XAMPP o desde '<http://localhost/phpmyadmin>'.

### 4.b Enlaces de descarga de software

Enlace a la descarga del instalador XAMPP = <https://www.apachefriends.org/index.html>

Enlace al repositorio de GitLab del equipo (puede que no funcione sin la intervención del equipo) = <https://gitlab.com/st.-mary-s-iqp/database>

### 4.c Installation Directories

Directorio de instalación para XAMPP = 'C:\Archivos de programa\xampp\'

Directorio de instalación para Localhost = 'C:\Archivos de programa\xampp\htdocs\'

Directorio de instalación para los Archivos Digitales = 'C:\Archivos de programa\xampp\htdocs\stmdatabase\'

Directorio de instalación para las plantillas = 'C:\Archivos de programa\xampp\htdocs\stmdatabase\Import Templates\'

#### **4.d Nombres de usuario de la base de datos**

Nombre de usuario Admin/Root = root

Nombre de usuario general = Mary

Nombre de usuario para copias de seguridad = root\_backup

Nombre de usuario para Restaurar = root\_restore

Nombre de usuario para Eliminar = root\_delete

Consulte la sección 3.a.v para obtener su información de inicio de sesión. El usuario root tiene una contraseña definida por el administrador del software y debe escribirse cerca de la computadora que está ejecutando los Archivos Digitales.

#### **4.e Comandos de Powershell**

El comando de copia de seguridad manual que se ejecuta desde el directorio de instalación de los Archivos Digitales en Powershell como administrador = `.\stmarysbackup.ps1 -destdir "E:\path\to\backup folder"`

El comando de restauración manual que se ejecuta desde el directorio de instalación de los Archivos Digitales en powershell como administrador = `.\stmarysrestore.ps1 -sourcedir "E:\path\to\backup folder"`

### **5 Hacer que la base de datos**

Para que la base de datos sea genérica, la iglesia u organización que quiera usarla tendrá que ingresar al código y cambiar palabras e imágenes para reflejar su marca. El equipo ha escrito todos los archivos PHP que necesitarán editar para permitir tales cambios. En las líneas del PHP, dondequiera que aparezca el nombre St. Mary's Parish, se puede cambiar al nombre de la organización que lo usa. No elimine ni borre ningún carácter aparte de las palabras que está cambiando.



Para cambiar las imágenes o los logotipos de la parroquia de St. Mary, busque donde la línea dice "imagen del logotipo de stmary" en la tabla y luego ingrese al archivo PHP correspondiente. Abra los archivos / xampp / htdocs / stmdatabase. Primero descargue la imagen que desee y guárdela como .png o .jpeg en la carpeta principal de la base de datos. Ahora abra el archivo PHP, en la línea donde está la imagen del logo de stmary, debería decir "stmary\_logo.png" entre comillas. ¡Las citas no se deben borrar! Entre las comillas, reemplace "stmary\_logo.png" con el nombre de la imagen que guardó. Si lo guardó como .png, asegúrese de que esté escrito como "yourImageName.png" y si lo guardó como .jpeg, escriba entre comillas como "yourImageName.jpeg". Si el nombre entre comillas no coincide con el nombre de la imagen en la carpeta, cambiar el logotipo no funcionará.

La siguiente tabla indica los archivos y en qué líneas se necesitan cambios para que la base de datos se vea y se sienta como la suya.

## 5.a Tabla de áreas genéricas

/xampp/htdocs/stmdatabase

PHP files	Lines where change is to be implemented
ad_confirmbackup.php	Ln 22 - imagen del logo de stmary
ad_confirmrestore.php	Ln 22 - imagen del logo de stmary
ad_connect.php	Se pueden cambiar el nombre de usuario, la contraseña y el nombre de la base de datos
Ad_connectdelete.php	El nombre y la contraseña de la base de datos se pueden cambiar
ad_deletebaptism.php ad_deletecomunion.php ad_deletecomunion.php ad_delete confirmation.php ad_deletedeath.php ad_deletemarriage.php ad_deletedecisionbaptism.php	Ln 8 - St. Mary's Delete/Eliminar de Santa Maria Ln 20 - imagen del logo de stmary
ad_deletedecisioncommunion.php ad_deletedecisionconfirmation.php ad_deletedecisiondeath.php deletedecisionmarriage.php	Ln 7 - St. Mary's Delete/Eliminar de Santa Maria Ln 19 - imagen del logo de stmary
Ad_deleterecorddirect.php	Ln 28 - imagen del logo de stmary
Ad_deleteselect.php	Ln 21 - imagen del logo de stmary
Ad_startbackup.php	Ln 22 - imagen del logo de stmary Lines 39 and 41 - el nombre de la ruta debe cambiarse
Ad_startrestore.php	Ln 22 - imagen del logo de stmary Lines 38 and 40 - el nombre de la ruta debe cambiarse
In_chooseimage.php	Ln 35 - imagen del logo de stmary

In_decidebaptism.php in_decidecommunion.php in_decideconfirmation.php in_decidedeath.php in_decidemarriage.php In_writebaptism.php in_writecommunion.php in_writeconfirmation.php in_writedeath.php in_writemarriage.php	Ln 9 - cambiar el titulo Ln 22 - imagen del logo de stmary
In_insertbaptism.php in_insertcommunion.php in_insertconfirmation.php in_insertdeath in_insert marriage	Ln 9 - cambiar el titulo Ln 32 - imagen del logo de stmary
Index.php	Ln 40 - imagen del logo de stmary Ln 46 - cambiar el titulo
Out_finalbaptism.php	Ln 8 - cambiar el titulo
Out_finalcommunion.php out_finalconfirmation.php out_finaldeath.php outfinalmarriage.php	Ln 7 - cambiar el titulo
Out_tablebaptism.php out_tablecommunion.php out_tableconfirmation.php out_tabledeath.php out_tablemarriage.php	Ln 9 - cambiar el titulo Ln 21 - imagen del logo de stmary
Stmary.sql	Ln 3, 5, 22, 24 - database title
Stmarybackup.ps1	Cambio de título Line 13 -título y contraseña de la base de datos
Stmarysrestore.ps1	Title change Ln 16 - título y contraseña