### English User Manual for the St. Mary's Digital Archives

By: Erik Wegge, Nathan Reed, & Ferris Florman

Revised & Updated by: Kofi Sarfo, Javier Espinal, Jared Minnich, & Adam Lee

#### Contents English User Manual for the St. Mary's Digital Archives 1 1 Introduction 6 **General Operation** 2 7 2.a Starting the St. Mary's Digital Archives 7 2.b **Taking Pictures** 8 2.b.i Setup Environment 8 2.b.ii Prepare the Document 8 2.b.iii Adjust and Align the Camera 8 2.b.iv Take the Photo 8 2.b.v Download to Computer 8 2.b.vi Run Adobe Photoshop 2020 9 2.b.vii Adjust Image Properties 9 2.c Inserting a Record 9 2.c.i Locate the Folder Containing the Edited Images 9

2.c.ii Click Create					
2.c.iii Browse to the Image	10				
2.c.iv Transcribe the Data	11				
2.c.v Check Record Details	13				
2.c.vi Submit the Record	14				
2.d Searching for a Record	15				
2.d.i Click Search	15				
2.d.ii Input Search Parameters	16				
2.d.iii Look through Results					
2.d.iii.1 Print the Certificate	18				
2.d.iii.2 Print Document Image	19				
2.e Importing Records	20				
2.f Bulk Importing Records	20				
3 Special Operation	21				
3.a Installation	21				
3.a.i Install XAMPP as an Admin21					
3.a.i.1 Download the XAMPP Installer	21				
3.a.i.2 Dismiss Warning 21					
3.a.i.3 Select Software to Install	21				

3.a.i.4 Make a New Folder at 'C:\Program Files\xampp\'	22
3.a.i.5 Final Steps	22
3.a.ii Run Apache and MariaDB as Windows Services	22
3.a.ii.1 Start the XAMPP Control Panel	22
3.a.ii.2 Start Apache	22
3.a.ii.3 Start MariaDB	22
3.a.ii.4 Stop Apache and MariaDB	23
3.a.ii.5 Install Them as Windows Services	23
3.a.ii.6 Final Steps	23
3.a.iii Set Database Root Password	23
3.a.iii.1 Start phpMyAdmin	23
3.a.iii.2 Click User Accounts	23
3.a.iii.3 Change the Root Password	24
3.a.iii.4 Run Notepad	24
3.a.iii.5 Edit the Configuration File in Notepad	24
3.a.iii.6 Restart XAMPP	25
3.a.iv Initialize the Digital Archives	25
3.a.iv.1 Download from GitLab	25
3.a.iv.2 Extract the Archive	25

3.a.iv.3 Copy Files	25
3.a.iv.4 Create the Desktop Shortcut	26
3.a.iv.5 Start phpMyAdmin	26
3.a.iv.6 Click Import	26
3.a.iv.7 Browse to the File	26
3.a.v Create Four New Users	26
3.a.v.1 Start phpMyAdmin	27
3.a.v.2 Click User Accounts	27
3.a.v.3 Click add user account	27
3.a.v.4 Click Home	27
3.a.v.5 Click User Accounts	27
3.a.v.6 Edit Privileges for the New User	27
3.a.v.7 Click Database	27
3.a.v.8 Select the Database	28
3.a.v.9 Select the Permissions for the User	28
3.a.v.10 Repeat for other users with new information	28
3.a.vi Autostart XAMPP	29
3.a.vi.1 Press 'win+r'	29
3.a.vi.2 Import a Task	29

3.a.vi.3 Browse to File	29
3.a.vii Configure Powershell	30
3.a.vii.1 Run Powershell	30
3.a.vii.2 Check the Current Execution Policy	30
3.a.vii.3 Set the New Execution Policy	30
3.a.vii.4 Check the New Execution Policy	30
3.b Maintenance	30
3.b.i Backup to External Destination	31
3.b.i.1 Click Admin	31
3.b.i.2 Enter the Path to the External Drive	32
3.b.i.3 Final Steps	33
3.b.i.4 Alternative Backup Option	34
3.b.ii Restore from External Source	34
3.b.ii.1 Click Admin	35
3.b.ii.2 Type of paste the path to the external drive	36
3.b.ii.3 Click go	37
3.b.iii Delete Record from Database	38
3.b.iii.1 Click Admin	38
3.b.iii.2 Type of paste the path to the external drive	38

3.b.iii.3	39 39 39 39					
3.b.iii.4	Click go	40				
4 Sum	Summary of File Locations and Terms 42					
4.a	Software	42				
4.b	Software Download Links	42				
4.c	Installation Directories	42				
4.d	Database Usernames	43				
4.e	Powershell Commands	43				
5	Making the Database Generic	44				
5.a	Generic Areas Table	46				

### **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.

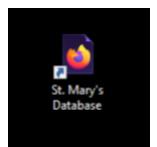
This manual describes in detail how to use this software. It also describes how to install the Digital Archives as well as how to backup and restore the software. This manual was originally written in English by the project team and has been translated into Spanish. This is the definitive guide for operating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



#### 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: Bautismos/Baptisms				
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	
	19931121 - 254 - COMUNION - 2 - U - 2 - 1 - NARANIO ROSA IRG
Campos de entrada/Input Fields	NARANUT OF CALL AND A CONTROL OF CALL AND A
*=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"	2 marine de Primera Comunica ?? 21 de reminibre 1993 (Coparol) 1 Josa Maranfo
*=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"	2. Radili general 3. merkya Maylia 4 Denia Cabac
	5 Stille acrite
Núm Libro/Book No.:*	6 Dayai Cabadless
Núm Página/Page No.:*	7 Dignory Centeria
Núm Record/Record No.:*	8 Daniel Sonzilly 9 James Honzilly
Primer Nomb/First Name:*	10 Juge Greenen
Segundo Nomb/Second Name:	11 quan Castrillón
Primer Apellido/First Sumame:*	12 Jeane acoste
Segundo Apellido/Second Surname:	13 Jennith Paraona III Parroquia Sonta morria, Balboa Por: mession Opcor Brown
Sufijo/Suffix: None 🗸	Por: messaer Opcor Brown
Cédula/Identification Card:	

Sufijo/Suffix:	None ~	Adr: more and Op	car Brown
Cédula/Identification Card:			
Fecha Comunión/Date of Communion:*			
Lugar Comunión/Place of Communion:*	Please fill out this field.		
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 Ir	mage		

#### 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 Núm Identifier No. Pa		Núm giná/Page No.	Núm Record/Record No.	Ruta de la Imagen Cargada/Uploaded Image Path (Click para ver/Click to vie				
P101	P1010020001 101		002	0001	<u>19931121 - 254 - COMUNION - 2 - U - 2 - 1</u> <u>NARANJO.ROSA.JPG</u>		1-2-1-		
		Info	rmació	on del Feligr	és/Parishoner Inform	atio	<b>n</b> :		
Nomb/	Nomb/First Nomb/Second Apel		Premier Segundo Illido/First Apellido/Second jurname Surname			Sufijo/Suffix	Cédula/Identification Card		
Ros	sa None N		faranjo	o None 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:									
Teformentin del Decision Tensierie (Testiere Decend 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.

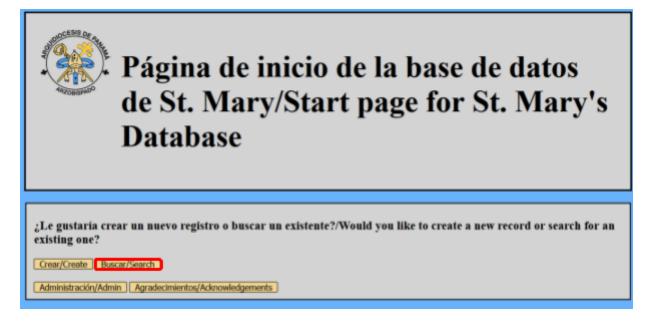


### 2.d 2.d Searching for a Record

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.



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 Para	ameters			
	Núm Único/Unique Identifier:				
	Núm Libro/Book No.:				
	Núm Paginá/Page No.:				
	Núm Record/Record No.:				

	Nomb Resgristado/Creator Name:	
	Fecha Crear/Date Created: Comienzo/Start	mm/dd/yyyy
	Fecha Crear/Date Created: Fin/End	mm/dd/yyyy
	Ordenar por/Sort by:	Nûm Único/Unique Identifier
	Enviar/Submit	
Ľ	Atrás/Back Inicio/Home	

#### 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.

At	rás/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			
	•	P0020020001	2	2	I	Rosa			
	•	P0020020008	2	2	8	David			
	•	P0020020009	2	2	9	Javier			
1							,		
Output Type Crear Certificado/Create Certificate Mostrar Imagen de Documento/Display Document Image									
Enviar/Submit									
At	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**'.

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

#### Información del Registro/Record Information:

Firma del Sacerdote/Priest Signature:

### 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**'.

Impresión/Print

	-
12 Jeane acosta	
13 Senneth Parsons III	
Parroquia Santa maria, Ball	on
0	
Por; Massinot Opean Br	own

Impresión/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\stmdatabase\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.

<u>To convert an Excel file to a CSV</u> 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, <u>https://www.apachefriends.org/index.html</u>. 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\xamp\' 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 '<u>http://localhost/phpmyadmin/</u>' 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 '<u>http://localhost/stmdatabase/index.php</u>' 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\stmdatabase\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

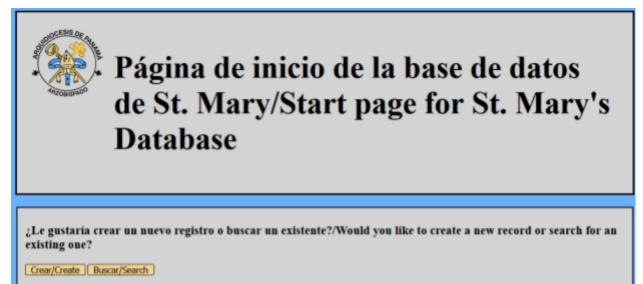
This section describes how to perform general maintenance on the Digital Archives. Here, the process for backing up images and the database as well as restoring the last saved database and archive of images is described. The process for deleting records is also described here.

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

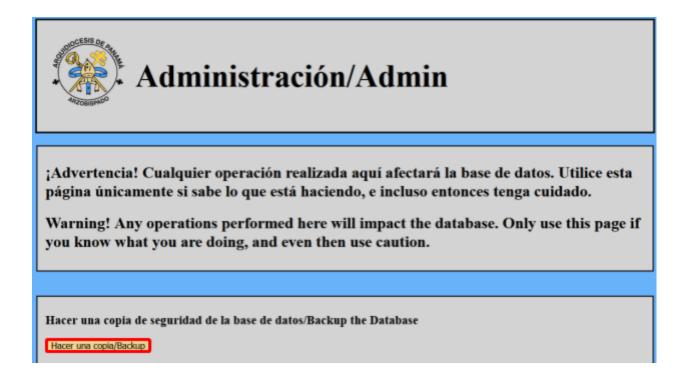
Backing up the images and database to an external destination is an important part of ensuring that the information in the database is preserved. Regular backups should be performed on the order of every week for as long as new data is being entered into the database. The physical backup drive should 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.

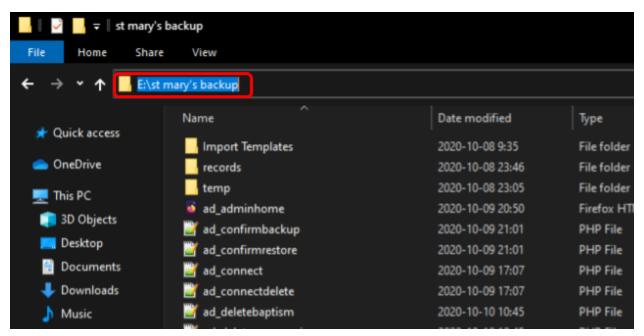


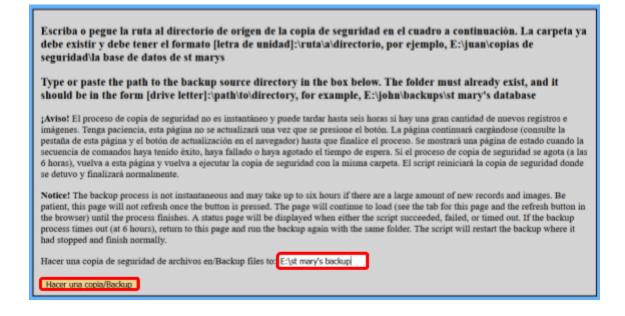
Administración/Admin Agradecimientos/Acknowledgements



#### 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.





#### 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"



# Estado de la copia de seguridad/Backup Status

Base de datos copiada correctamente a/Database successfully backed up to: E:\st mary's backup

Inicio/Home

#### 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 <u>http://localhost/phpmyadmin/index.php</u>. 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.

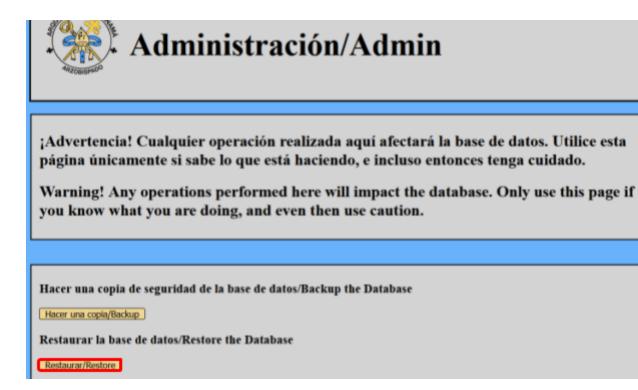
#### 3.b.ii Restore from External Source

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.





### 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.

📙 🛛 🚽 📕 🕫 st mary's backup				
File Home Sha	re View			
← → • ↑ 📑 E:\st mary's backup				
	Name	Date modified	Туре	
📌 Quick access	Import Templates	2020-10-08 9:35	File folde	
📥 OneDrive	records	2020-10-08 23:46	File folde	
💻 This PC	temp	2020-10-08 23:05	File folde	
	ad_adminhome	2020-10-09 20:50	Firefox H	
3D Objects	📑 ad_confirmbackup	2020-10-09 21:01	PHP File	
E Desktop	ad_confirmrestore	2020-10-09 21:01	PHP File	
😭 Documents	🔐 ad_connect	2020-10-09 17:07	PHP File	
🕹 Downloads	ad_connectdelete	2020-10-09 17:07	PHP File	
🍌 Music	📑 ad_deletebaptism	2020-10-10 10:45	PHP File	
Pictures	ad_deletecommunion	2020-10-10 10:45	PHP File	
📲 Videos	ad_deleteconfirmation	2020-10-10 10:45	PHP File	
MI VIGEOS	📑 ad delatedaath	2020 10 10 10 45		
\a\directorio, por ejemplo, l	irectorio de origen de la copia de seguridad en e E:\juan\copias de seguridad\la base de datos de s e backup source directory in the form [drive lef database	st marys		
que se presione el botón. La págin hasta que finalice el proceso. Se m agotado el tiempo de espera. Si el	no es instantáneo y puede tardar hasta seis horas. Tenga pa a continuará cargándose (consulte la pestaña de esta página nostrará una página de estado cuando la secuencia de comar proceso de restauración se agota (a las 6 horas), regrese a e urá el proceso de restauración donde se detuvo y finalizará i	i y el botón de actualización en el navegador) ados haya tenido éxito, haya fallado o haya sta página e intente restaurar nuevamente desde		
pressed. The page will continue status page will be displayed wh	t instantaneous and may take up to six hours. Be patien to load (see the tab for this page and the refresh button en either the script succeeded, failed, or timed out. If th ring again from the same folder. The script will restart t	in the browser) until the process finishes. A e restore process times out (at 6 hours),		

Restaurar archivos de/Restore files from: E:\st mary's backud

Restaurar/Restore

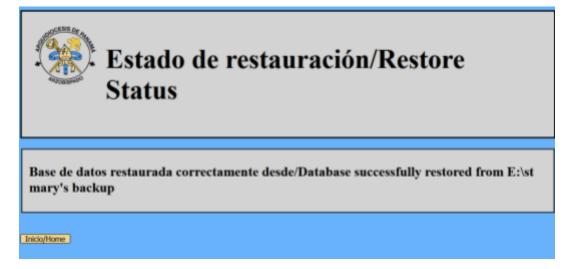
finish normally

### 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?

Crear/Create Buscar/Search

Administración/Admin Agradecimientos/Acknowledgements

¡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.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 VNúm 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.

Rosa None Naranjo None None						
	None					
Fecha Comunión/Date of Communion     Lugar Comunión/Place of Communion     Nomb Padre/Province       1993-11-21     Parroquia Santa Maria     Oscar Browner						
Está seguro de que desea eliminar este registro de la base de datos?/Are						

### 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 '<u>http://localhost/phpmyadmin</u>'.

### 4.b Software Download Links

Link to XAMPP installer download = <u>https://www.apachefriends.org/index.html</u> Link to team GitLab repository (may not work without team intervention) = <u>https://gitlab.com/st.-mary-s-iqp/database</u>

### 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 in_decidedeath.php in_decidemarriage.php In_writebaptism.php in_writecommunion.php in_writeconfirmation.php in_writedeath.php in_writemarriage.php	Ln 9 - change title Ln 22 - stmary logo picture
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