

# Information Management Platform:

## A Solution to Tracking Caras con Causa's Impact on Cataño and Guaynabo

**Sarah DeMaio**  
**Yasaman Khosravi**  
**Yuvraj Pathania**  
**Tramy Truong**

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Professor Jefferson A. Sphar and  
Professor Lorraine D. Higgins  
Professor Lauren Matthews,  
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## ABSTRACT

Caras con Causa is a non-profit organization located in Puerto Rico, that seeks to end poverty by providing services and opportunities to the people living in the communities of Cataño and Guaynabo. The organization was facing challenges evaluating and showing the impact they'd had on the people that engage with them. Although reporting on this impact is key to their mission, due to cumbersome and fragmented information management methods this task was inefficient and burdensome. Our goal was to improve Caras con Causa's information management so they could track their impact on their communities more easily and efficiently. First, we conducted focus groups and mapped the flow of information within the organization. Then, we created a set of requirements from these maps that should be fulfilled by a new information management system. Using these requirements, we researched various Customer Relationship Management (CRM) platforms and found Salesforce to be the ideal platform for the organization based on its ability to track contacts, manage multiple programs, and overall accessibility. We also recommended that Automate.io, an add-on to Salesforce, be used to automate processes such as transferring data from other platforms.

Finally, our team tested Salesforce and created tutorial videos on how to use the platform. We also tested Automate.io and created tutorial videos detailing how to integrate it with other platforms to complete tasks. In addition to this report, we included an implementation plan, which will contain tutorial videos on how to reorganize and centralize the organization's current information in Google Drive prior to implementing the new system, and we provided additional resources about where to find technical assistance for Salesforce and Automate.io.

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## 1. INTRODUCTION

Caras con Causa, serving the communities of Cataño and Guaynabo, Puerto Rico, is a non-profit organization (NPO) that takes a holistic approach to reducing poverty. The organization currently has ten staff members and approximately 50 volunteers who work across seven projects involving education, ecology, economy, and community.

Small NPOs like Caras con Causa need to use the most efficient tools to track their impact on communities. Tracking this impact is essential to accessing grants, attracting donors and volunteers, and improving the organization's credibility. However, due to restrictions like a small staff and limited budget, Caras con Causa, like many other NPOs, struggles with information management. Because of the number of diverse projects, they collect a lot of data in Excel files and Google Drive documents that get duplicated and mismanaged. A strategy Caras con Causa could employ to this problem is a Customer Relationship Management (CRM) software, which allows for better management of information about an organization's contacts and events. Other NPOs have used these platforms to track their contacts by demographics or involvements to create stronger relationships (Crawley, 2020).

The goal of our project was to improve Caras con Causa's information management, which would allow them to track their impact on the Cataño and Guaynabo communities. We completed this goal by first mapping Caras con Causa's current methods of information management, target stakeholder groups, and their long-term goals. From this, we were able to develop a set of criteria that we used to assess various information management tools and platforms that could be customized to their needs. We tested this by creating a sandbox environment and from our experience, we created an implementation plan for a new platform that the organization can migrate to from their current system.

## 2. LITERATURE REVIEW

### The importance of non-profit organizations and their requirements for success

In Puerto Rico, as in many other places, communities are facing challenges due to the different ecological, economical and political issues highlighted in Supplemental Materials<sup>1</sup> A. NPOs serve an important role by gratuitously providing services and opportunities to local communities that governments are unable to provide. Citizens establish NPOs with the common interest to work towards “civil, economic, social, and cultural rights” (Ciucescu, 2009). In the United States, there are 1.3 million nonprofits that assist people dealing with hunger, shelter, education, and healthcare; they play a fundamental role in creating thriving and equitable communities (National Council for Nonprofits, 2020). NPOs’ success is wholly dependent on their ability to engage with the community, attract allies, and provide meaningful services. To do so, an NPO needs strong information management and communication with stakeholders.

Caras con Causa is an NPO located in Cataño and Guaynabo, Puerto Rico that hopes to eradicate poverty through four key programs addressing community, education, ecology and economics. Caras is currently working on seven projects revolving around these programs with approximately 50 volunteers. One educational program is the Juan Matos Estudia, an after school program that provides services like tutoring to students. The programs are distinct, but they also overlap in terms of participation and leadership. For example, participants from the Juan Matos Estudia sometimes participate in or volunteer in a different ecological project called LabCom. Supplemental Materials F highlights some of the information learned about these projects as well as a map that showed where projects were connected.



*Figure 1.* Students Participating in a Summer Employment Program through Caras (Caras con Causa, 2018)

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<sup>1</sup> Supplemental Materials, Implementation Plan, instructional videos can be found at <https://digital.wpi.edu/> by using the browser to locate Puerto Rico projects and then searching with the project title.

An internal challenge Caras con Causa faced at the start of this project was with its information management. Prior to this project, they were gathering, storing, and processing information about donors, participants, and volunteers by segmenting them into project areas. A problem with this method was that it led to duplication in Caras con Causa's records when a participant from one program signed up for a different one. Caras con Causa collects, for example, data such as student involvement in their programs and how this may affect graduation rates and grades to clearly demonstrate the effectiveness of their work. They needed to organize this data in a way that avoids duplication, and allows them to report their impact.

Caras' challenges with information management also led to their impact and role being obscured when collaborating with other organizations. In order for the organization to improve their public visibility, they needed proper documentation of their impact to enhance their transparency and ownership of their projects. We believed that by improving Caras' information management, we would help them improve their public image.

### **Information Management Tools in NPOs**

In order to increase Caras con Causa's credibility and increase their impact on the communities, we first looked at methods and tools other NPOs have used to document and track their information. Additionally, we explored steps that have improved information flow in NPOs and what has made tracking of information more difficult for them. The information we acquired from this literature review provided a backdrop to the research we later collected.

NPOs require a hardworking staff that enables the organization to operate smoothly, and they rely on donors and sponsors to sustain their projects (Rathi & Given, 2017). In order to find recurring donors, an organization must be transparent with their work; this can be done by tracking impact using different variables such as growth in participation and number of volunteers. In order to obtain this information, NPOs need to document the people and progress in different projects and the impacts on participants. It is essential for nonprofit organizations to have proper data management, so they can ensure that programs are being properly funded. Organizations can ensure that they target those most likely to donate, and invest donations in programs with recurring participants and volunteers. With proper documentation, donors are more likely to make donations and allies are more inclined to assist the organization. Additionally, more volunteers will be attracted to these projects and external outreach with trustworthy information can be done (Rathi & Given, 2017).

In order to better understand various knowledge management tools commonly used by NPOs, we examined a study of Canadian and Australian NPOs and explored reasons why some tools are more popular than others. It showed that the majority of NPOs prefer and use physical documents due to the reliability of it (Rathi & Given, 2017). The second most popular platforms among these NPOs for storing information were commercial productivity softwares such as Microsoft Office, followed by public websites such as Google Doc as the third most popular as

shown in Table 1 (Rathi & Given, 2017). Organizations that use physical print documents and Microsoft Office have a harder time sharing information between different departments. While Google Drive was used in bigger NPOs, Dropbox was especially popular with the board of directors of a couple of these NPOs (Rathi & Given, 2017). Although these platforms allow these organizations to share data in real time, they have limited storage, making them less ideal for long term usage. Additionally, these platforms do not allow for automatic contact tracking, which is extremely important for NPOs as they need to have a good relationship and records with all of their many different types of contacts. Smaller NPOs faced more challenges when using digital technologies, which can be attributed to lack of funds, knowledge, and human resources (Rathi & Given, 2017). Platforms that do allow for things like volunteer tracking typically require configuration from an employee, which presents a challenge for smaller nonprofits. Additionally, many smaller organizations may not be able to afford these platforms. Another factor is many NPOs may not know of different platforms/software (Rathi & Given, 2017). NPOs are often understaffed and overworked, making it difficult for them to spend time researching and implementing a new system.

**Table 1**

*Information management tools used by different-sized Australian and Canadian NPOs.*

(Adapted from Rathi & Given, 2017)

Tools used by Canadian NPOs (↓)/NPO size (→)	Very small (%)	Small (%)	Medium (%)
Physical print documents	93.4	96.95	97.64
Commercial productivity softwares	72.3	82.5	93.75
Public websites	51.75	62.3	72.85

Overall this study showed that Caras was among many other NPOs that struggled with proper information management, not only because of overworked and limited staff and funding, but because they were not using the proper tools. Even though Caras uses online platforms like Google Drive in conjunction with physical documents, it is not enough to easily track their impact. Information management tools can help NPOs better document and track their impact.



One of the tools used by a few NPOs surveyed in this study was Customer Relationship Management tools, which were used for improving relationships with key stakeholders in for-profit organizations. NPOs can use these tools to manage their donors, participants, volunteers and other contacts. Additionally, Caras con Causa showed a great interest in this type of knowledge management tool. Therefore, we looked into the benefits of these tools and what needed to be considered when choosing and implementing one for a NPO.

### **Customer Relationship Management as an information management Tool for NPOs**

A Customer Relationship Management (CRM) is an organizational platform that was initially created to help improve marketing strategies in for-profit organizations (Rathi & Given, 2017). CRMs do so by allowing organizations to create an internal infrastructure that centralizes contact information, marketing campaigns, and consumer interaction. These platforms can be adjusted for NPOs. An advantage of nonprofit CRMs is their ability to segment contact types, and allows the organization to track sponsors, donors and volunteers (Crawley, 2020). CRMs allow the user to segment data and show constituent type, interest area, and geographic location. For example, an organization can use a CRM to email donation requests filtered by past donations, and recent interactions. In addition, CRMs let an organization track their contacts by demographics, types, or involvements, and use that information to create a more robust relationship (Crawley, 2020). CRMs can also be used to manage events, and manage the participants and volunteers in those events. Furthermore, CRMs can automatically generate reports based on data in a database. For example, an NPO can use this functionality to view and visualize a program's growth and use this information to apply for grants or improve relations with donors.

In order to understand how to choose and implement the best CRM platform for an NPO, we explored a case study that showed Plan Norway's transition from more conventional platforms to a CRM (Kristoffersen & Singh, 2004). This organization's decision to use a CRM arose from them realizing that they were competing for funding among more well known NPOs like Red Cross (Kristoffersen & Singh, 2004). In order to decide what kind of CRM platform Plan Norway needed, they first had to determine who their "customers" were (Kristoffersen & Singh, 2004). Additionally, the entire organization's needs were considered when picking the best CRM approach (Kristoffersen & Singh, 2004). This meant having features and capabilities everyone would benefit from. They determined their customers, which in case of a nonprofit is their target stakeholders, were their donors. As a result, they chose a donor-centric CRM, which helped create a more concrete relationship (Kristoffersen & Singh, 2004). The lessons that can be learned from Plan Norway is that the key to choosing a suitable CRM is to clearly evaluate the key relationship(s) (Kristoffersen & Singh, 2004). Additionally, the biggest resource in this process is the organization's staff, who can also help evaluate the specific goals and needs they have (Kristoffersen & Singh, 2004).

Another important factor to be considered is the implementation plan for transition to a new platform. Looking at another case study done on an unnamed NPO helped us understand the various steps to consider when implementing a CRM. The first step, as mentioned before, is to look at the customers' needs and what they respond to (Wong, 2015). The second step was to look at the structure of the organization, because during an implementation of CRM, this structure could change tremendously (Wong, 2015). Another aspect to consider is that the people in different departments need to support the plan, not just the management (Wong, 2015). Otherwise, the NPO might not be able to fully transition into the new system. Lastly, the technology becomes a factor when data from different departments gets collected into one database (Wong, 2015). Moving forward these guidelines helped us consider important aspects of Caras con Causa when creating an implementation plan.

Prior to this project, Caras con Causa was tracking event data by having participants and volunteers fill out a sheet of paper, which was then input into Google Sheets by the program coordinator. From the start, we learned they wanted to be able to keep track of all contact information under a centralized system and track the evolution of participants and volunteers. We needed to obtain more specific information on their data management needs to successfully complete our mission. The following chapter describes the methods we used to learn more about the organization and improve their information management.

### 3. METHODOLOGY

#### Goal and Objectives

Caras con Causa faced challenges in volunteer tracking, donor management and file duplication. The organization used Google Sheets for recording projects and the administrators used Excel sheets to record information on their projects. By storing information on Google Drive, it is easily accessible for staff members to collaborate. While this method could work in the short term with less than ten staff working together, it may not be an ideal platform for long-term data management. This process is cumbersome and could lead to duplicated or even omitted files due to internal misunderstandings. In order to improve data usage and data flow, we hoped to centralize documents so that they were accessible to everyone and could be managed over a long period of time.

Our goal was to refine the organization's information management by suggesting and planning an implementation of a user-friendly platform. We believed our plan would improve Caras con Causa's information management by improving their data gathering and sharing for long-term management. Ultimately, we planned to improve their ability to track their impact on the communities in order to improve their relationship with donors and community members. In order to constructively assist Caras con Causa, we completed the following objectives:

1. Understand Caras con Causa's current methods of information management, target stakeholder groups and their long-term.
2. Verify the understanding of information management within the organization.
3. Explore and evaluate different methods of information management.
4. Suggest an implementation plan for the chosen information management platform.

#### **Objective 1: Understand Caras con Causa's current methods of information management, target stakeholder groups, and their long-term goals.**

Our first goal was to better understand Caras con Causa's current method of information management, the type of data that is recorded, with whom the data is shared, how they currently track contacts, and how the data is used. We determined the strengths and weaknesses within the organization's current platform. Our group conducted three focus groups to learn the information needed to assist Caras. These discussions helped us understand how they share critical information internally as well as their relationship with donors and the community. For example, we identified how Caras con Causa documents their volunteer and participant information and monitors information about donations and budgets. Lastly, we needed to understand the budget for a revised or entirely new platform.

Our focus groups were structured following the organization's internal structure: the administration, current projects, and Escuela con Causa. These focus groups consisted of four,

six, and seven personnel, respectively. This structure was chosen because each group could have different preferences for methods of managing and sharing data. We chose focus groups as a method to achieve our objective for multiple reasons. Firstly, focus groups are an advantageous way to collect data because they allow the staff to uncover ideas and issues that may not have been considered. Another advantage is that they leave less room for error; we could ask follow-up questions immediately. Additionally, it enables the moderator to explore related but unanticipated topics as they arise in the course of the group's discussion (Berg & Lune, 2014). Correspondingly, these discussions helped us better understand the benefits of different platforms and allowed us to choose the most beneficial information management platform. Our focus group questions can be found in Supplemental Materials B. We read the consent script shown in Supplemental Materials M and recorded the Zoom meetings.

A potential flaw in our method was that creating multiple focus groups could result in losing individual opinions in the process. Therefore, it was crucial to use guided questions to ensure that everyone was able to share their opinion on the matter. This was especially essential to detect on which matters the organization reached consensus and when disagreement emerged. This would be crucial when looking into methods to optimize Caras con Causa's information management.

**Objective 2: Verify the understanding of information management within the organization by mapping the information learned in focus groups.**

After obtaining the member's responses, we depicted our understanding of the flow of information within the organization using a knowledge map. By using this map, we were able to outline, identify, and categorize assets such as people, the type of data they collect and share, their processes for entering and storing their data, and the purpose of the information collected (The United States Agency for International Development, 2003). This map assisted us in communicating our understanding of the knowledge management structure with Caras con Causa. Furthermore, we were able to identify where we had a knowledge gap. This allowed us to ask very specific questions to understand the organization's information management better. This knowledge map, similar to the one shown in Figure 2, served as a method to analyze the data found in the focus groups and enabled us to see the organization's structure as a whole.



Figure 2. Sample knowledge map used to look at the information flow between different departments of Caras con Causa

When creating these knowledge maps, the goal was to map their contact information based on what they are currently collecting for volunteers, participants and donors. In another knowledge map, we also wanted to map the projects they have, what specific information they collect for the projects, who works on the projects, what their role is in the project, and who in the organization they are in constant contact with. By doing this we wanted to compare what the organization is currently collecting to what they should be collecting. After completing the maps, we shared them with our contacts in Caras con Causa in order to receive their feedback on our understanding of the information flow in the organization. These maps could help us identify the requirements for the organization that needed to be fulfilled with an information management platform.

**Objective 3: Explore and evaluate different information management platforms.**

From our knowledge maps and discussions with Caras con Causa, we were able to determine where information management hurdles existed and how they affected Caras' work. From our research in the previous chapter, we determined that information management solutions like CRMs have the potential to assist the organization. Our objective was to identify which information management solution would be beneficial for Caras con Causa. While we

researched the most appropriate efficient CRM platforms, we also looked for non-CRM tools that could be used in order to provide the organization with inexpensive options.

An efficient way to determine which CRM platforms were suitable was to assess them based on criteria developed from the focus groups and knowledge maps. We chose to use this method because it allowed us to analyze multiple platforms and present their attributes in a simple and informative way. We narrowed down the number of CRMs to compare by investigating user reviews, available features, strengths, weaknesses, and price. We obtained this information through Capterra, a vendor that acts as an intermediary between the buyer and seller. Then, we created a table, similar to Table 2, with a list of Caras’ criteria on one column, and the different platforms on the others, and checked if a platform has what Caras requires; the completed table had many more requirements than what is shown below. Using this table, we were able to confidently choose a platform for Caras con Causa.

**Table 2**

*Sample of table used for comparative research*

Caras’ Requirements	Platform X	Platform Y	Platform Z
Volunteer Tracking	✓	✓	
Donor Management	✓		✓
Google Integration, etc.	✓	✓	

A limitation in this method was that as we narrowed down the different CRM platforms that could be used, we may have overlooked other options with different feature sets. This method also required us to conduct our research using sources that were trying to sell us a product. We were skeptical of claims made on a publisher’s website and tried to supplement those claims by consulting specialists.

**Objective 4: Suggest an implementation plan for the chosen information management platform.**

In order to assist Caras con Causa with the transition to the new information management platform, we created a set of guidelines on how to use the chosen platform based on our experience and research. We trial-tested the platform by entering and organizing sample data, which was created by our team to uphold the confidentiality contract. Subsequently, we documented the process as well as noting when we faced a challenge. Additionally, we noted

resources from the platform's website that could help when the organization faces technical issues. We created a document with all the guidelines and resources for easy access. This can help every member utilize the tool efficiently, and they can also refer to it if any questions arise. This step would be essential if the platform does not include free or affordable learning packages.

### **Ethical Considerations**

Before conducting any focus groups, performing comparative research, and providing an implementation plan, we informed the research subjects that their participation is voluntary. This meant that they could refuse to participate at any time in case they were uncomfortable with answering any questions. Additionally, before performing any of the aforementioned procedures, we explicitly asked the subjects to give their informed consent by presenting them with the "Informed Consent" script that can be found in Supplemental Materials L.

## 4. RESULTS & FINDINGS

### Results of Conducting focus groups and mapping the findings

By completing three focus group discussions with the different project teams, administrators and Escuela con Causa, we learned that Caras con Causa wants a user-friendly information management platform with the ability to track impact by documenting evolution of the participants and volunteers, and track the progress of each project for a few reasons. For example, they would like to be able to quickly and accurately acquire reports to apply for grants and show their impact on the Cataño and Guaynabo communities to acquire and sustain more donors. The notes taken throughout the focus groups can be found in Supplemental Materials C, D, and E or can be read in the transcripts in Supplemental Materials J, K, and L.

In our first focus group with the project coordinators, we learned that they use Google Drive for file sharing. Currently, folders in Drive are only shared with members who are working on the project. When someone in a different project area needs this information, they communicate through WhatsApp and email to share documents. Focus group attendees stated that, over time, sharing numerous files made it difficult to locate files when they were needed. We learned that the members of Caras con Causa collect different types of information for each project area, and there is no standardized set of information to be collected.

From our second focus group, we learned that administrators utilized Dropbox and flash drives to share sensitive documents. Although this protects their files, it leads to file duplication and inconsistency. Members edit the document copy that is on their computer, rather than the original document. We learned that visuals and reports were also essential for the organization to receive fundings from their donors. These reports show and evaluate the impact of projects in different ways (e.g. how many people participated or volunteered, how the programs have impacted students' grades, different roles a contact has had over time, etc). However, the organization had to import information from different Google sheets to manually create the report needed. By having a platform that can create these reports, Caras could quickly acquire reports by filtering their data.

In our third focus group with the school, Escuela con Causa, we were able to learn how information is stored and sent to the school. Students at the school are required to volunteer to receive credits for their graduation requirements. Therefore, as students from Escuela con Causa volunteer at the organization, the information is recorded on Excel sheets. Then it is sent to the school to record on their federally mandated system. However, Caras con Causa tracks the contact information from Escuela con Causa in the same manner as the project teams, for their own purposes. We concluded that this focus group's results were not relevant to our project, due to the difference in the method and purpose of the data collected by Escuela con Causa.



After we conducted focus groups, our team created knowledge maps to help organize our initial findings. The first map, found in Supplemental Materials G, shows the communications among different projects. Lastly, the second map shows contact information to verify the data that the organization was recording for each of their stakeholders. This map can be found in Supplemental Materials H. These maps are representative of how the information is currently managed. Therefore, it has places where the data overlaps, is duplicated, and across the organization it is not uniform. Sending Caras con Causa our knowledge maps helped show the organization the gaps in the information they were collecting and what they wanted to collect. This helped the organization recognize that they needed to meet together and fill in the gaps. As a result, the organization created a template for what needs to be collected for every contact (e.g. names, addresses, and birth dates). They also identified specific additional information that would be needed for different types of contacts (volunteers, donors, and participants). Table 3 shows the data that must be collected for each contact.

**Table 3**

*Data Caras con Causa must collect from contacts*

(Adapted from Caras con Causa, 2021)

<p>Information needed from all contacts:</p> <p><b>Contact Type</b></p> <ul style="list-style-type: none"> <li>● Volunteer</li> <li>● Participant</li> <li>● Donor</li> <li>● Community leader</li> <li>● Community members</li> <li>● Collaborator groups</li> <li>● Teacher</li> <li>● Visitor</li> </ul> <p><b>Information from each contact</b></p> <ul style="list-style-type: none"> <li>● Name</li> <li>● Organization name</li> <li>● School Name</li> <li>● Contact project (where contact was made)</li> <li>● What employee were they first in contact with (with whom you made your first contact)</li> <li>● Date of first contact</li> <li>● Gender</li> <li>● Birth date</li> <li>● Age</li> <li>● Preferred language</li> <li>● Deceased?</li> <li>● Mailing Address</li> <li>● Community</li> <li>● Phone</li> <li>● Other phone</li> <li>● Mobile</li> <li>● Ext. 1</li> <li>● Ext. 2</li> <li>● Home phone</li> <li>● Fax</li> </ul>	<p>Additional Information by contact type</p> <p><b>Volunteers:</b></p> <ul style="list-style-type: none"> <li>● Volunteer type (Paid or unpaid)</li> <li>● Monetary value of unpaid</li> <li>● Volunteer interest</li> <li>● Volunteer skills</li> <li>● Volunteering count</li> <li>● Volunteer area</li> <li>● Volunteer interest in unpaid internship at Caras</li> <li>● Volunteer status</li> <li>● Volunteer organization</li> <li>● Volunteer hours</li> <li>● Volunteer event hours</li> <li>● Non-local volunteer residence</li> <li>● Platform used to find resident</li> <li>● Volunteer Leaders Hrs - Total number of hours worked that are Completed.</li> <li>● Volunteer Events Hrs. - Time spent in CARAS 's events like LabCom, tutoring centers or other volunteerism events offered by the ONG</li> <li>● Volunteer notes</li> </ul>
	<p><b>Participants:</b></p> <ul style="list-style-type: none"> <li>● Participant interests before involvement in projects</li> <li>● Participant interest after involvements</li> <li>● Date of calling participant</li> <li>● Duration of calling participant</li> <li>● Participation count</li> <li>● Does participant participate in internship</li> <li>● Participant standardized test grades</li> <li>● Participant admission</li> </ul>

<ul style="list-style-type: none"> <li>● Email</li> <li>● Preferable time of communication</li> <li>● Preferred contact method</li> <li>● Website</li> <li>● Social media</li> <li>● Project</li> <li>● School</li> <li>● School year</li> <li>● Student's overall grade before participation</li> <li>● School's overall grade after participation</li> <li>● Siblings</li> <li>● Mother</li> <li>● Mother's highest level of education</li> <li>● Father</li> <li>● Father's highest level of education</li> <li>● Emergency contact name</li> <li>● Emergency contact phone number</li> </ul>	<ul style="list-style-type: none"> <li>● Participant scholarships</li> <li>● Participant graduate?</li> </ul>
	<p><b>Donors:</b></p> <ul style="list-style-type: none"> <li>● Donation Types</li> <li>● Donation Amount</li> <li>● Project or Activity donated to</li> <li>● Reason/Interest for donating</li> <li>● Is it a recurring donation</li> <li>● Times donor has been contacted</li> </ul>
	<p><b>Community leaders</b></p> <ul style="list-style-type: none"> <li>● Number of meetings with the community leaders</li> <li>● Number of people in the meetings</li> </ul>
	<p><b>Community members</b></p> <ul style="list-style-type: none"> <li>● Number of surveys taken</li> <li>● Community member's needs <ul style="list-style-type: none"> <li>○ Type</li> <li>○ Amount</li> <li>○ Amount satisfied/left</li> </ul> </li> <li>● Satisfied or not? <ul style="list-style-type: none"> <li>○ why?</li> </ul> </li> <li>● Community member's professional services <ul style="list-style-type: none"> <li>○ Recurrence</li> </ul> </li> <li>● income</li> </ul>
<p><b>Collaborator groups:</b></p> <ul style="list-style-type: none"> <li>● Meetings with collaborators</li> <li>● Roles of collaborators</li> <li>● Reason for meeting</li> <li>● Number of people in meeting</li> </ul>	

From our discussions with the organization, we were able to determine the requirements for an ideal information management platform. Figure 3 includes the required and bonus features the organization wants in an information platform. There are many features a CRM platform offers, but we focused only on those essential for the organization's current data tracking needs. We also learned that the organization uses Quickbooks, an accounting software, and Squarespace, which is a website designer as well as Instagram and Facebook. We therefore determined that the ability to integrate the CRM with these platforms would be a bonus.

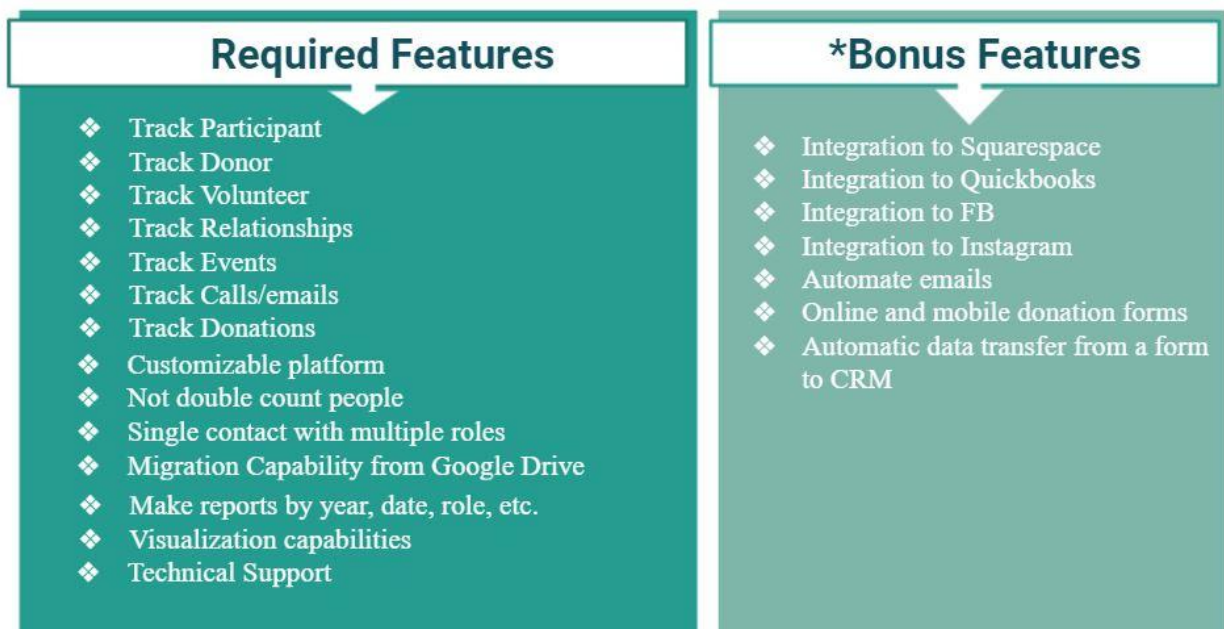


Figure 3. Required and bonus features used to assess the best information management platform for Caras con Causa.

### Choosing an Information Management Platform

We used review websites Capterra and G2 to search for popular CRMs, and we then looked for those with features that Caras desired. We initially filtered the results by looking for CRMs that were widely reviewed, highly rated, and non-profit oriented. From Capterra and G2, we discovered Salesforce, Bloomerang, DonorPerfect, and NetSuite.

We compared the available features of each CRM to the requirements shown in Figure 3 by checking each CRM's website and, when possible, speaking with their sales representatives. Salesforce advertised their ability to “track many different types of programs or services, regardless of complexity... capture all your income data in one place, in real-time, neatly related to supporter profiles.... and report impact back to those that support your mission” (Salesforce, 2021). We were unable to get in contact with a sales representative, so to learn about how to utilize Salesforce, we contacted a WPI IT Administrator familiar with this system. We discussed with her and a colleague how to set up Salesforce for testing purposes and how to integrate with other services, such as Google Drive. In our meeting, we learned about Trailhead, Salesforce's

platform for teaching new system administrators on how to use the system by completing modules in a sandbox environment. We also learned about AppExchange, another Salesforce platform, that allows for users to install third-party apps to give Salesforce more functionality.

The next CRM we looked at was Bloomerang. Bloomerang's website made the CRM appear as if it was donor-oriented with the ability to manage volunteers. Immediately, it was not clear if Bloomerang could track participant or volunteer growth, requiring us to contact a sales representative. The representative did confirm to us that Bloomerang is primarily for donor management but said it would be possible to replace donors with participants and set up custom fields to try to get Bloomerang to function as desired. We also learned that Bloomerang allows for integration with other services but does not allow for third-party app installs like Salesforce.

The next CRM we researched was DonorPerfect. As the name suggests, it is targeted towards donor management and fundraising and from our research, it did not have the ability to track participant and volunteer evolution in the manner Caras con Causa described to us. Their website stated that it can track volunteer hours, but we were unable to confirm any other possible functionalities as we couldn't get in contact with a sales representative. The final CRM we analyzed was Netsuite. While it does have the features that Caras con Causa is looking for, the high price did not justify picking it over the competition.

As we researched these CRMs, we filled in Table 4. We determined that Salesforce was the ideal CRM for Caras con Causa. While the requirements in the table are not listed on the basis of importance, tracking participants and volunteers was the most important feature for the organization. Salesforce and Bloomerang both have the ability to do this, but the advantages Salesforce presented made it the better option. One of the advantages is their extensive training program in Trailhead. For an organization that is transitioning into a CRM for the first time, we believed that having pre-built training modules and detailed support articles would be essential for training and troubleshooting purposes. Salesforce is also flexible when it comes to integration with other platforms. Through their version of the App Store, AppExchange, Salesforce allows users to install free and paid addons that can increase Salesforce's functionality. They can, for example, automatically transfer contact information from a spreadsheet. Because of these reasons, we chose Salesforce as the CRM for Caras con Causa.

**Table 4***Comparison of CRMs Based on Caras con Causa's Required Features*

Required Features (* Bonus Features)	Salesforce (CRM)	Bloomerang (CRM)	Donor Perfect (CRM)	Netsuite (CRM)
Track Participant	x	x		x
Track Donor	x	x	x	x
Track Volunteer	x	x		x
Track events	x	x	x	x
Track calls/emails	x		x	x
Track donations	x	x	x	x
Customizable fields	x	x	x	x
Single contact with multiple roles	x	x		x
Not double count people	x	x		x
Migration Capability	x	x	x	x
Make reports by year, date, role, etc.	x	x	Based off of funds	x
Visualization capabilities	x	x	x	x
Track Relationships	x	x	x** (donor only)	x
Price	First 10 free subscriptions; \$48/user/month	Based on contacts to be stored  Up to 250 contacts; free ( <a href="#">pricing</a> )	Least amount of features is \$159 a month	\$999 per month with access costs of \$99 per user, per month
*Integration to squarespace	x	x		x

*Automate emails	x	x	x	x
*Automate data transfer from forms	x			
*online and mobile donation forms		x	x	
*Integration to FB	x		x	x
*Integration to Instagram	x			x
*Integration to Quickbooks	x	x	x	x

Table 4 also shows some of the bonus features that Caras con Causa wanted in the CRM. One of these features was to integrate an event system from their website to Salesforce. Figure 4 shows the ideal process of creating events and transferring them to Salesforce. Another feature was to transfer contact information from a Google Form to Salesforce. Using G2, we found two of the most popular add-ons with this functionality, Zapier and Automate.io. We decided to compare their features, number of actions, price, etc, through Table 5. We found that Zapier and Automate.io were extremely similar in their pricing, integration with apps, and number of tasks. The only difference between the two was that Zapier was cheaper with the non-profit discount and provided fewer tasks. Because of these similarities, we decided to test both to see which one had better support and user-friendliness.

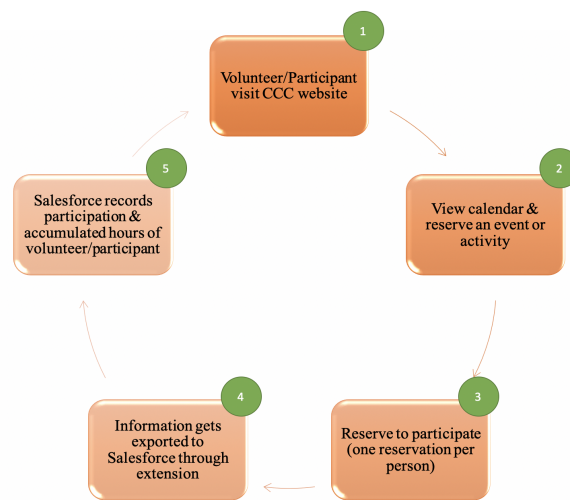


Figure 4. The ideal process for a volunteer/participant to schedule a time to attend CCC's events on their website.

**Table 5***Salesforce Add-On Comparison*

	<b>Zapier</b>	<b>Automate.io</b>
Free App Integration	Gmail Google Calendar Google Sheets Google Contacts Google Drive Dropbox Google Forms Microsoft Excel Squarespace  <a href="#">More apps</a>	Gmail Google Calendar Google Sheets Google Contacts Google Drive Dropbox Google Forms Microsoft Excel Squarespace  <a href="#">More apps</a>
Free package	100 tasks & 5 zaps; single action	300 actions & 5 bots single action
Price	\$19.99/per month, billed annually	\$19/month
Market target	mid-market	small-market
Tasks/Actions	750	2,000
Zaps/Bots	20 <a href="#">Task count (specific info)</a>	20
Premium App access	Salesforce & Quickbooks	Salesforce & Quickbooks
Members limitations	One team member unless Team package is purchased	One Team Member
Multi task availability	Single trigger can perform a series of actions. Up to 4 tasks that can be triggered	Can perform a series of actions
Nonprofit Price	15% off pricing plans ( <a href="#">price</a> )	



## Creating an implementation plan for Salesforce

To create an implementation plan, we took two steps. First, we created guidelines on how to refine Caras con Causa’s current methods of collecting, storing and sharing their information through Google Drive in order to smooth the transition to Salesforce. Subsequently, we created a set of guidelines on how to transition from Google Drive to Salesforce and how to set up Caras con Causa’s information in the software. As this chapter includes the steps we took to test Salesforce, we use vocabulary specific to Salesforce, which is included in the table below for reference.

**Table 6**

*Salesforce terminology definitions*

Terminology	Definition in Salesforce	Definition in our process
Objects	The type of information being collected. e.g. Contacts (Salesforce help, 2021)	The same
Fields	part of an object that holds a specific piece of information. e.g. Phone Number (Salesforce help, 2021)	The same
Accounts	A consumer or company whose information is being tracked. Also could have members (Salesforce help, 2021)	An organization a contact is a part of or the contact itself.
Contacts	The people that the organization is connected with (Salesforce help, 2021)	Any person Caras con Causa works with in an event or in other ways.
Reports	Presents a set of information based on a set of criteria. (Salesforce help, 2021)	The same

Campaigns	A marketing initiative to generate prospects and build brand awareness (Salesforce help, 2021)	The projects in Caras con Causa. e.g. LabCom
Campaign Hierarchy	Includes a Parent Campaign with many child campaigns. (Salesforce help, 2021)	How the projects related to one another as well as the events in these projects.
Parent Campaigns	The overarching campaign with child campaigns related to it. (Salesforce help, 2021)	The overarching project that contains different types of projects in which specific events happen. e.g. LabCom(parent campaign) has LabCom experiments and LabCom Donor meet up as child campaigns. Both of the child campaigns have specific events.
Events	The organization's planned activities (Salesforce help, 2021)	The same. e.g. LabCom experiments campaign has three events on Monday the 3rd.

To take the first step, we had to find an efficient way to centralize all the information needed in Google Drive. This was identified as an important step because Salesforce allows for their users to simply import their data from Google sheets or other common platforms such as Microsoft. We found the easiest way to bring together all the information projects have collected was to create a “Caras con Causa” folder as the main folder that is shared with everyone in the organization. Then, within the main folder, there will be folders separated into different years. Next, inside each folder with a specific year, there will be different folders separated by project areas. Within these project area folders there will be Google Sheets consisting of all the information collected during each project. We created a visual tutorial on how to create this shared drive (see link in our Implementation Plan which can be found in Part 1 “Google Drive Set-up”). Google Sheets can be combined into one Google Sheet and then imported to Salesforce, or each Google Sheet can be imported separately.

To model this process of transition, we created a table in Google Sheets that included all the data types needed for each project at Caras con Causa. This information was mostly about the contacts Caras con Causa had made; therefore, we organized this information based on the types of contacts. This information was taken from the table Caras con Causa shared with us and

organized based on contact types. Screenshots of the contact Google Sheet can be found in Supplemental Material I. Using the contact data types, we created some mock-up data in an attempt to respect the confidentiality of the information shared by Caras con Causa. We downloaded this Google Sheet in .csv file format in order to import it to Salesforce. Although we created this table to put mock information in, we also tested and found that we can use one Google Form with questions about every piece of required information for a contact. This form can transfer all the information automatically to Google Sheets, which can then be imported to Salesforce.

Considering that Caras con Causa's administration uses Excel sheets to protect the information from being shared, we looked at how to transfer data in Salesforce but restrict it to certain groups of people. We found that Salesforce allows users to restrict the specific field, data, or object to certain groups of people. This allows administrators to use the same platform as the rest of the team, which helps the organization further in centralizing the information in one platform. Since Excel sheets can be exported in .csv file format as well, the rest of the importation process is going to be the same as importing Google Sheets.

To model Caras con Causa's future information setup in Salesforce, we created accounts to use our sample data in Salesforce. This free account gave us access to all capabilities Salesforce can offer, which helped with understanding and documenting the steps that Caras will need to take for this transition. We found that Salesforce can track many things such as accounts, contacts, cases related to different contacts as well as campaigns and events. All of these objects can be renamed and customized to resemble the data Caras collects. This allows for a smoother importation process from the .csv files to the lists in Salesforce.

As mentioned before, one of Caras con Causa's biggest concerns is duplication of contacts who have been involved in different projects but with different roles. For example, Sarah DeMaio could be a participant in LabCom and a volunteer in Urban Roots. However, her information should not be duplicated and she should not be counted as two people. This is especially important when the organization is trying to evaluate their impact by the number of people they have affected. In order to tackle this issue, we created events under a parent campaign and assigned the contact types to the events rather than the contacts. This allows one contact to have many different roles in different events. For example, as seen in Figure 5, Tramy Truong was part of two LabCom events. In one of them she was a donor, and in the other a participant. By clicking on either of these events, we can see the information about it, as well as the parent campaign, which in this case is LabCom. Additionally, by clicking on the parent campaign, we can find all the events under the parent campaign in the Campaign Hierarchy as seen in Figure 6.

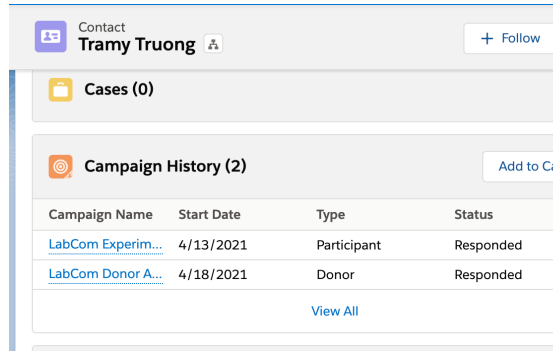


Figure 5. Example of how a contact can be assigned to different events but have different roles.

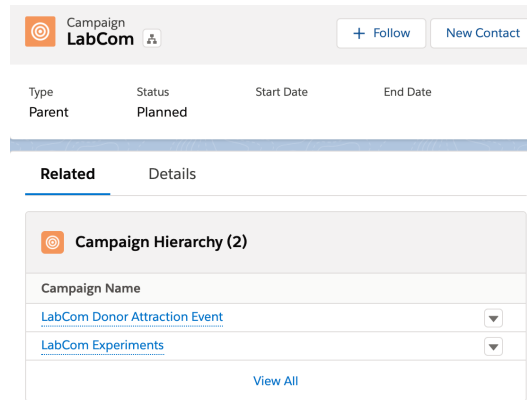


Figure 6. Example of how different events can be assigned to a Parent Campaign.

To ensure that duplication of contacts does not happen, Salesforce allows its users to determine fields where it should look for duplication. To do so, we thought of a few possible scenarios where contacts could be duplicated and customized the duplication detection rules accordingly. The first scenario to consider was that the same person signs up twice, which could result in duplicated contact information. To solve that, we added a rule that identifies and removes matched names. Another scenario is when a contact signs it with a nickname or misspells their name. The system would not catch this duplication as the names would not match; thus we thought it would be best for us to add rules about highlighting instances where name or birthdate match to decrease the possibility of missing a duplicate. Additionally, Caras con Causa can decide based on experience what rules would serve them better and add those using our instructions in the Implementation Plan document we provided.

Caras con Causa needs good information management to evaluate and track their impact. Thus we also explored the options Salesforce has for creating different reports with visualizations. We tested this by querying the number of male versus female participants in different events. Salesforce has many categories of information that can be filtered out to show specific kinds of impact. For this example, we used “campaigns with contacts” to separate all the events and the contacts who participated, and we assigned the total count on the y-axis. To avoid double counting the same participant in different events, Salesforce allows you to choose the

option, “unique count”, with which it only counts the same first and last name once. In order to separate the contacts by gender, we added the custom made field, gender, as the x-axis. Finally, we filtered out participants only. The report would generate a table of results, and we used the “add chart” button to visualize the findings as seen in Figures 7 and 8. These reports can be exported as Excel files however, we found that the chart does not get exported. Therefore, either a screenshot of the chart can be used or manually creating a chart in Excel.

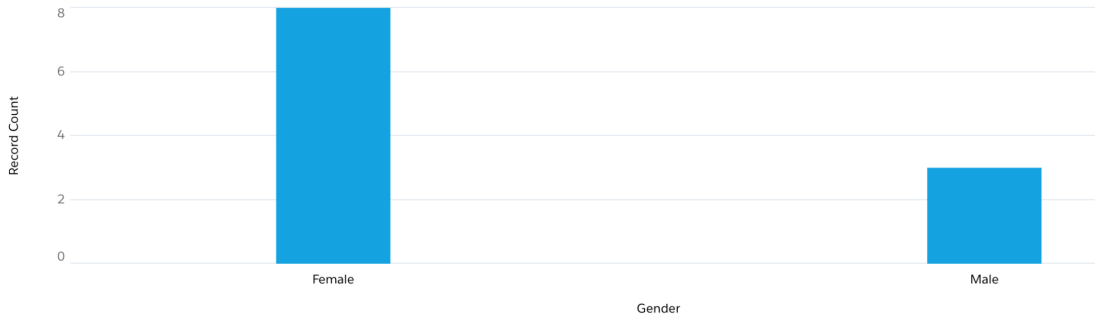


Figure 7. Example of a chart created in Salesforce for a report

<input type="checkbox"/> Gender ↑	Campaign Name	First Name	Last Name
<input type="checkbox"/> Female (8)	LabCom Experiments	Tramy	Truong
	LabCom Experiments	Mariela	Ramirez
	LabCom Experiments	Lorraine	Higgins
	LabCom Experiments	Sonya	DeLorie
	LabCom Experiments	Belen	Casanova
	LabCom Experiments	Marine	Herman
	LabCom Experiments	Brigid	Griffin
	LabCom Experiments	Isadora	Sorpol
Subtotal			
<input type="checkbox"/> Male (3)	LabCom Experiments	Yuvraj	Pathania
	LabCom Experiments	Alex	Sphar
	LabCom Experiments	Michael	Fernandez
Subtotal			
Total (11)			

Figure 8. Example of an automatically generated report.

Another feature that Caras con Causa thought would be helpful was the ability to send and track emails through Salesforce. To test that, we created a mock contact and we added one of our emails to the contact’s details. Subsequently, we clicked on an option to send an email and realized that Salesforce allows users to send emails to individuals and groups. Additionally, when we opened the email sent through the mock contact, Salesforce automatically updated the status of the email from “sent” to “opened”. However, when we replied to the email, the status

did not change even though we received the response to the sender's email. This allows Caras con Causa to keep track of the emails sent to contacts and the number of emails opened. Furthermore, if needed they could track who responded through their own email and analyze the response rate, they could in the "Leads" tab on Salesforce to keep everything centralized.

As one of our goals is to reduce manual labor for Caras con Causa members, we looked at Automate.io to automate some of the documentation and event planning processes. In Automate.io, we first tested how to import contacts from Google Forms to Salesforce. When a form was submitted, the responses were automatically recorded in a Google Sheet. Then, in Automate.io, we had to sign into both apps, find the Google Sheet, and drag and drop the spreadsheet fields to the matching Salesforce ones. This process is discussed in more detail in Implementation Plan Part 9. Caras con Causa also expressed interest in automatically registering students to an event from their website, which was created using Squarespace, and adding the event and its attendees to Salesforce. Automate.io was integrated with Squarespace, making the process of transferring responses similar to importing contacts from Google Forms to Salesforce. We created test events for participants and volunteers with registration forms and linked the responses to Salesforce fields. The video in Implementation Plan Part 10 shows this process in greater detail. In the process of creating an event, we had difficulties getting Salesforce to display the correct start and end times. We were, however, able to solve this problem by directly chatting with a support agent who responded in a timely manner.

As we were testing these automations, we realized that the number of actions that need to be completed when creating an event could exceed the number that are available with Automate.io's base package. An action in Automate.io is something you want to perform in an App; creating or searching for a contact in Salesforce is an example of an action. Creating an event with all of the required information requires multiple actions to be completed beforehand. Automate.io also limits the number of Bots in the base package. Bots are responsible for executing the actions and performing the automation. An activity for both volunteers and participants would require separate bots, and depending on the number of events Caras con Causa would like to transfer to Salesforce, they may have to upgrade from the base package.

We also tested Zapier's functionality and support by performing the same actions we performed with Automate.io, and were completely unable to automatically add events to Salesforce. We kept receiving an error and reached out to support to address this but did not receive any replies. Because of the difficulties we experienced in integrating events to Salesforce with Zapier, we chose Automate.io as the recommended automation add-on.

## Through our testing we learned

- One Google form to collect all contact information in one Google Sheet is the most efficient.
- Salesforce allows users to put restrictions on who sees certain information.
- The users can customize all objects and fields.
- Salesforce allows to customize the duplication rules.
- The users can create reports by filtering information automatically and export as Excel file.
- Salesforce has the capability to send emails to contacts and track them.
- Automate.io is a useful add-on for automating data transfer and integrating other platforms.

## 5. RECOMMENDATIONS & CONCLUSION

Our first recommendation is for Caras con Causa to alter the way they are storing their documents. There should be a “Main Folder” with essential information that the organization can share with everyone in Google Drive. Then the organization should use Google Forms to collect contact information and store it in the linked Google sheet. This would enable a contact to fill out their information instead of requiring a staff member to do so. We created tutorials for setting the Google Drive and Google Form in our Implementation Plan under Part 1, “Google Drive Set-up” and Part 2, “Centralizing Data in One Google Sheet with a Google Form”.

Our second recommendation is for each staff member to set up an account with Salesforce then begin customizing the fields. It is also important for members to discuss the corresponding fields throughout Salesforce to ensure that every user will collect and store information uniformly. The detailed video on this process is in our Implementation Plan in Part 4, “Video on Instructions to Customize Fields on Salesforce” and Part 3, “Salesforce Glossary”, contains the terms that will be helpful to know.

Our third recommendation is once Salesforce has been customized and the add-on has been included, the organization should begin transferring their information from Google Sheets to Salesforce. We provided tutorial videos in the Implementation Plan in Part 5, “Transferring contact information from Google Sheets”. Additionally, we provided information on creating events, reports, duplication rules, and sending and tracking emails in Part 6, 7, 8, and 9 of the Implementation Plan.

Our fourth recommendation is after familiarizing with the terms used in Salesforce, the organization should subscribe to Automate.io. It is an add-on that can be used to create a bridge to all their current platforms, this includes Google Forms, Google Sheets, Squarespace, Quickbook and many more into Salesforce. In the Implementation Plan, we provided a tutorial in Part 10, “Transferring data from a Google Form Using Automate.io”. Additionally, Part 11 shows “Setting up Squarespace Events and Transferring Them to Salesforce with Automate.io.” However, it is important for the organization to understand the basics and be familiar with Salesforce before trying to integrate with Automate.io. By understanding Salesforce before Automate.io, it allows for an easier transition to incorporate this add-on.

Our Implementation Plan may not include every problem that may arise with Salesforce. In order to deal with this limitation, we included the additional resources in Chapter 12 on learning packages and how to contact Salesforce and Automate.io for technical assistance. Additionally, we included other helpful troubleshooting resources in the Implementation Plan.

To summarize, our project goal was to improve Caras con Causa’s information management in order to help them track their impact on the Cataño and Guaynabo communities. We found through our extensive focus group discussions, mapping and the organization’s information that Caras’ existing information management is fragmented and can lead to data



duplication. It is also inefficient as the staff must manually enter information and data collection is not standardized. Therefore, tracking many stakeholders that they are in contact with becomes challenging. We recommended a CRM called Salesforce because it would be a great way for the organization to be able to centralize all their data. We also recommended how the organization should first centralize all their data in Google Drive to make future transfer to the CRM easy to automate using an add-on, automate.io. Although the initial set up and transfer may be time consuming but in the long run, transition to Salesforce reduces manual labor and the time taken for information management at Caras. Ultimately, better and more efficient information management can lead to easier ways to evaluate impact to apply for more grants, sustain sponsors and donors, and allocate funds effectively. Additionally, providing accurate data on impact will allow the organization to gain the community's trust as they can clearly show the change they have made in their communities. We believe this can assist Caras con Causa in their mission of eradicating poverty.

### **Summary of recommendation**

- Centralize current information in Google Drive
- Use one Google form to collect contact info
- Customize fields in Salesforce
- Transfer current information into Salesforce
- Apply add-on Automate.io

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