

**ONLINE PROJECT MANAGEMENT SYSTEM FOR HUMANITARIAN ORDER
OF SIERRA FALCONÈS INCORPORATED**

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BIOGRAPHICAL DATA

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In the following year, she was enrolled at Cavite State University (CvSU) – Carmona Campus to take Bachelor of Science in Information Technology program for her college education. She was also a beneficiary of Congresswoman Dahlia A. Loyola’s CarSigMa Educational Assistance.

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THE PROPONENTS

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An undergraduate thesis proposal submitted to the faculty of the Department of Industrial and Information Technology, Cavite State University – Carmona Campus, Carmona, Cavite in partial fulfilment of requirements for the degree of Bachelor of Science in Information Technology. Prepared under the supervision of Mr. Daryl Lyndon T. Supan.

INTRODUCTION

The Charities Aid Foundation (2018) searched for charitable manners all over the world and shares perspectives on giving and generosity. In their ninth year, they found out that giving increased in modernized countries and helping a stranger and giving their time becomes a trend around the world. In the Philippines, World Bank reported at the year 2017 to 2018 the poverty rate was no more than 23 percent and in the recent survey at 2020 and 2021 it was predicted for poverty to fall under 20 percent where the world bank recognized the country domestic economy resilience and stability. With natural calamities and man-made accidents, charity organizations in the Philippines extended their goals to fulfill social needs. Most charitable organizations established in the Philippines do not cater to a single target, but rather to a variety of programs such as those mentioned. One such organization is the Humanitarian Order of Sierra Falconès Incorporated, which is based in Parañaque, Philippines.

The Humanitarian Order of Sierra Falconès Incorporated is a non-profit, non-stock humanitarian service, educational, and environmental organization. It is a service organization of young professionals who share a common interest in humanitarian service and environmental awareness with more than a thousand members and volunteers across the country. The organization has its mission to be an avenue for volunteerism, humanitarian service, care for the environment, and protection of biodiversity, and to provide charitable assistance to rural areas and assist indigent children and adults in getting a decent education. Together, they help fulfill the organization vision of humanitarian service and love for the environment.

The organizational process starts with the creation of advocacy whereas a quarterly assembly is held to possibly gather the members of the organization, the event allows all members to present suggestions or ideas about a project or advocacy. Then the Program Proponents can use these ideas to create a project or new advocacy, list all the resources needed, and schedule it. Then, they will send letters of invitation to possible sponsors or suppliers to persuade them to join in the organization's projects. All the responses from the sponsors or suppliers will be validated by all national-level Program Proponents. The national-level Program Proponents will also be documenting all the incoming donations for the project, they will record their kind and how the sender wanted the donation's form to be that can be supplies or funds afterward, they will receive it and include it in the report. The project will then be passed to the Program Implementers who will implement the project. The national-level Program Implementers will assign the committee on the local level that will be the one who leads the tasks for the benefit. All the resources received will be delivered to the beneficiaries' area and the Program Implementers will create a report

of what they have received and will automatically mark it as given to the beneficiaries and report it as used resources. Then the facilitation of the project will occur. After the project, all the committees assigned will be creating a report of what happened and what responsibilities they had performed. All the Program Implementer will be checking these reports if accurate and will pass them to the national level Program Proponents to verify and be a reference in making the certificate of appreciation and will send it to them through LBC express.

However, the organization faces challenges as it expands across the country in the process of managing its projects. One of the problems in the organization is that the quarterly assembly is canceled because of the pandemic that became a hindrance for the organization's officers to be known with other members thus, the creation of advocacies limits with just the Program Proponents ideas and other members ideas and suggestions are unrecognized, also the Program Proponents' suggestions of advocacies or projects doesn't reach the local level members for them to check that results to lack of cooperation, unity, and transparency. Another is that in inviting sponsors, Program Proponents and Program Implementers are not very transparent with the files with the invited sponsors because of avoiding longer processes. Same as their problem in gathering the resources, each resource from sponsors or suppliers needs to be checked and verified, however, the process is taking long in passing the data to each officer checking it. As well as in documenting the resources that the resources needed and used were reported needed to be checked by both all Program Proponents and Implementers. This same problem is going on in monitoring that needed to be checked by Program Implementer and Program Proponents the reports made by the committee takes longer times and costs because

certificates will be then delivered in a courier company: the LBC Express to the committees. This process is a manual process that takes so much longer times and costs more money for each transaction. These are complications for the organization for the execution of projects and advocacies requires the cooperation of all individuals involved however with its absence, each other in performing their roles lacking in leadership, strategic planning, and more orderly process.

The Online Project Management System for Humanitarian Order of Sierra Falconès Incorporated is expected to be developed in response to the aforementioned issues. The study's key goal is to provide a medium for effective project management to promote productivity and interaction that extends to all of the members of the organization. The study also aims to propose a system that would end the organizations' manual system. Including the designing of an online software application that solves all the problems faced by the organization.

Objectives of the Study

The main objective of the study is to develop a functional online system application for the organization, Humanitarian Order of Sierra Falconès, which will serve as an aid for the organization's needs, to provide a platform for a better communication and information dissemination that will satisfactorily pass the criteria for software evaluation set in the International Organization for Standardization – ISO 25010.

Specifically, it aims to perform the following modules:

1. advocacy module that allows:
 - a. managing of possible advocacy or project presentations,
 - b. verifying of presentations;

- c. creating of projects; and
 - d. scheduling of projects;
- 2. invitation module that includes managing of:
 - a. letters of invitation to suppliers or sponsors,
 - b. supplier or sponsor validation, and
 - c. memorandum of agreement;
- 3. resources module that allows managing of the:
 - a. kind of donation or resources, and
 - b. mode of transmission of resources;
- 4. member module that includes:
 - a. assigning of committees;
 - b. registering of members or volunteers; and
 - c. tasking of responsibilities;
- 5. monitoring module that allows:
 - a. checking of the advocates report on the progress of advocacy;
 - b. checking of the advocates report on the progress of resources,
 - c. validating of program proponent's report;
 - d. validating of program implementer's report; and
 - e. validating of project committee's report;
- 6. report module that can be used to generate printable:
 - a. received resources report,
 - b. Program Proponents report of assigned resources,
 - c. Program Implementors reports of used resources,

- d. Project Committee report of program roles, and
- e. certifications for project committees;
- 7. settings module that can be used to modify:
 - a. organization advocacy names and descriptions,
 - b. organization location,
 - c. organization email address and contact details,
 - d. organization social media accounts,
 - e. website's labels, and
 - f. website's images.

Significance of the Study

A project management system for the organization comprises promoting development, innovation, and advancement so that the organization may support competitive service with consistency and competence. The study's findings might have a significant impact, particularly on the following beneficiaries:

Humanitarian Order of Sierra Falconès Incorporated. The study makes a valuable contribution to the organization's progress on its organizational processes through the development of the proposed system. The system will propel and drive the organization to cope up with the changes of the needs of the organization because of the innovation of technology. The proposed system will be used to centralize the organizational process of the organization in managing their programs or projects. Moreover, the organization's creation of advocacies and its projects, resources management and allocation, scheduling of projects, assignation and monitoring, documentation, decision making, and control of

the changes needed will improve as the proposed system is developed that could help all the members of the organization.

Program Proponents. The program proponents as the one who creates the projects for the organization, this study will act a medium to formulate accurate projects based on the advocacies and based on the present needs of the beneficiaries. As well as for the verification of reports to be accurate and timely.

Program Implementers. As the program implementers make it possible for the projects that the program proponents have been formulated through implementation, the study will provide a medium to disseminate schedules, tasks, notices, announcements from national level to the local level of implementers.

Committee. The study will provide a platform for the quick routing of committee's reports from the local level to the national level of officers validating their duty reports. As a result, the committee may get their certification swiftly and without paying any further expenses since it is given virtually.

Members. The study will benefit all members since it will provide a platform for them to effectively extend their contribution to the organization. The member module, which may timely provide them their responsibilities, would increase the member's contact with the organization using the proposed system to develop. In addition, they will be given the opportunity to propose ideas and proposals for future advocacy or initiatives for the group.

Future Researcher. With its consistency, the findings of this study will be able to give thoughts and ideas from this study on the advantages and effect of the suggested system's development and use. As a result, it might be useful to them as a reference in the

future development of their proposed system and the completion of the requirement of their capstone document.

Time and Place of the Study

The study will be conducted at the Humanitarian Order of Sierra Falconès Incorporated which is located at Parañaque, Philippines from April 2021 and to January 2022.

Scope and Limitation of the Study

Online Project Management System for Humanitarian Order of Sierra Falconès is a study that is focused on producing a project management system for the organization. The study will only focus not more than the following functions:

The advocacy module will give the capacity for all the members to suggest advocacies through a form, these will save as presentations of advocacies that will be listed in the system in a separate tab where it is listed from least to latest by default so Program Proponents can view the first advocacy that have been first submitted. The program proponents will then verify the inquiries of suggestions resulting for them to formulate projects regarding the accepted advocacies that should have a title, description, the chapter it is assigned and date when it was scheduled. The created advocacy will automatically save and reflect into the list of advocacies that have its steps displayed in a step progress bar that members in the specific chapter can update as well as enabling the Program Proponents to modify or delete the specified advocacy. In addition, each chapter that the organization have can only have one advocacy scheduled at a day.

The study will also provide a module for invitations for the sponsors or suppliers based on the advocacies needs, the system will then be a medium for the organization to

save the invitations and responses of the invited sponsor or supplier to be easily available for every Program Proponents and Implementers. Then if these invited sponsors or suppliers have been updated to have an accepted response, the name of the invited sponsors or suppliers will automatically be listed in the list of sponsors or suppliers' Memorandum of Agreement (M.O.A), it is the Program Proponents or Implementers' duty to upload a file of M.O.A. When M.O.A is already uploaded, the name of the sponsor or supplier will automatically be listed in the names of partner suppliers and sponsors that can be modified and deleted by Program Proponents and Implementers.

The resources module in the study will then be includes the kind of donation, this module will kind of connect the advocacy module and invitation module. The advocacies needed resources to be active, the resources come from the sponsors or suppliers. The system allows the Program Proponents and Implementers to save an upcoming resources from a sponsor under an advocacy that have phases that will be fulfilled by the members in the beneficial area. The first step will be identification which will provide the kind of donation, the sponsors or suppliers will be the one to decide whether it will be funds of supplies that will be transported, funds donated will be spent to buy supplies that the sponsors or suppliers wants and these will be recorded. Next is to identify mode of transmission of resources that will be recorded by the member that communicate with sponsor or suppliers about how the resources will be delivered and its date. And then when its is already received they have to report it. These steps will be displayed under each resource process and will be displayed in a step progress bar. Resources processes will be shown from latest to least updated by the members as the Program Proponents and Implementers can view each phase form that the members answers.

Meanwhile, the member module in the study the Program Implementers will assign committees: the program committee that will get to know who are the barangay and school officials around; registration committee that is charge of registration of participants before and during the activity; committee on logistics that is in charge of loading and unloading books and related supplies; committee on facilitators who will facilitate the parlor games; committee for documentation for photography and video; food committee that is charge of cooking for the feeding programs; and crowd control committee who will make the activity orderly and smooth. Each advocacy will have these set of Project Committees, Program Implementers can also add descriptions or notes in each Program Committee that Program Committee will receive. The system also allows the Program Proponents and Implementers to create an account for any type of advocate – Program Proponent, Program Implementer, member or volunteer, while the members can only request a creation of an account for a volunteer as per the organization is strictly accepting volunteer registration referred by members and these volunteers will soon be members in the will of Program Proponents or Implementers. The new advocate account creation includes its personal information, contact details, as well as its email and default password to use. In every advocacy, not all members can be Project Committee thus Program Implementers assign other tasks to all free members, these tasks were additional for other members to do in the occurrence of the advocacy.

The study's monitoring module allows specific user types to monitor each requirement. The Program Proponents and Program Implementers are allowed to check the requirements that are added by the members in the specific beneficiary chapters in order to update the progress of advocacies to be monitored these processes will be checked with the

same progress bar in the advocacy module, each step in the progress bar is allotted with different forms that members answered that the Program Proponents and Implementers can check. Same as with the resources list, members that update the happenings and requirements that each step resources process step progress bar in the system necessitate in order to update the status of the resources provided will be checked also by the Program Proponents and Implementers. Meanwhile the Program Implementers will be strictly the only user type that are allowed to verify the Program Proponents' report on assigned resources that indicates the need of each created advocacy, each Program Proponents' report have will be displayed in the Program Implementers' interface that allow them to verify, give note for question or revision, or disapprove the report of the Program Proponents. While the Program Proponents are also the only user type that is allowed to verify the Program Implementer report about the used resources in the advocacy occurred if it is true and correct, after each program of advocacies the Program Implementers will produce report that will be visible with the Program Proponents' interface allowing them to verify, give comment or revisions, or disapprove the report. This process is done to check and verify if the Program Implementers and Program Proponents' report is accurate to monitor the transparency of supplies or funds in an advocacy. Also, to be able to issue a certificate to the Project Committees, Program Proponents or Program Implementers will then be able to verify the report of the Project Committees that indicates the occurrences and the role they performed to monitor the activities happened the advocacy program. The Project Committees' report will be visible in the Program Proponent and Implementer's interface that can just either approve or disapprove the report of the Project Committees.

For the report module in the study, all the received resources whether it is supplies or funds from the suppliers or sponsors will be subject for the members to create the reports. The system can also generate Program Proponents' report of assigned resources, this report includes the assigned resources that the Program Proponents proposed before creating an advocacy that will be validated by the Program Implementers. While the Program Implementers reports of used resources are the reports produced by Program Implementers after the execution of a program advocacy in the beneficiaries, it includes all the used supplies and funds, the sponsors or suppliers, number of beneficiaries, number of members involved and its location. The system can also produce Project Committee report of program roles, these reports are from the Project Committee that includes the description of roles they performed in the execution of the program advocacy and some extra happenings in there. And the certifications for project committees that system also generates are softcopy of files upload by the Program Proponents that approved the report of Project Committee, these are certificate of appreciation that were given to Project Committee that have an approved report.

And finally, the settings module in the study is for the maintenance of the system. For the Program Proponents and Program Implementers will be the user types allowed to modify the organization advocacy name and its description in the list in the homepage of the system, organization's location map details that could be seen in Google Maps that indicates the website's location included in the contact page as well as the email addresses and the contact numbers that should be one telephone number and one mobile phone number of the organization to maintain the connection with the website's guests, the organization's social media account per each social media platforms in the website that is

linked to the organizations' social media for easy access, and website's label to update the system with the latest data or information the organization have, as well as the website images that is limited to not more than 10MB in size and should only in .jpg format for images to be lightweight for the system.

Definition of Terms

Technical Terms

Activity Diagram – explain the system's complex facets. An activity diagram is basically a more sophisticated variant of a flow chart that depicts the flow of information from one activity to the next (Visual Paradigm, n.d).

Entity Relationship Diagram – a specific kind of structural diagram used in database designing (Visual Paradigm, n.d.).

MySQL – is an open - source relational database management system (RDBMS) focused on Structured Query Language (SQL) that is supported by Oracle (Moore, 2018).

PHP: Hypertext Preprocessor (PHP) – is a widely used general-purpose scripting language that is suitable to web creation (The PHP Group, 2021).

Use Case Diagram – describes the connections between the use cases, the actors, and the systems (Visual Paradigm, n.d).

Operational Terms

Cast – the term of the regional level.

Nest – the term of the organization for its different chapters in the country.

Program Proponents - are members of National Directorates from National Program Director down to Program Coordinators and Committee Chairperson in nest level.

Program Implementers - are National Officers from Grand Falcon National (Secretary General, Cast Grand Falcon Regional (Regional Secretary) to Chapter President (Nest Grand Falcon) and Chapter Officers

Project – the service that the organization creates to extend help.

Project Committee – the committee assigned with their respective roles to lead a project.

REVIEW OF RELATED LITERATURE

Non-profit Organization and its Role to the Society

A lot of the actions in the modern society involves the decentralization and it moves the people to have more power in making the decisions for the public. In the last few decades, the countries that made actions on decentralizing the government has increased and have also been pressured by the donors that helped them such as the World Bank, the European Union, the Organization for Economic Cooperation and the Development in order for them to deliver responsive, efficient and effective public service (Orbista, 2012). These public services in the Philippines, Santos (2017) said that including the non-governmental organizations should be more centralized like the purpose of the proposed system and their role must be elevated in the societal progress so that it will be maintainable and have inclusive growth that can be fully realized by the Filipinos, he also said the Chief Party of the Phil-Am Fun Victoria Garchitorena told devex that there should be much greater awareness of the importance of bringing non-governmental organizations to a higher level of management expertise, of professionalism, of financial governance, of creativity and of the ability to undertake larger programs so that they can truly transform the society, especially the disadvantaged. According to Lakshyam (2015), these non-governmental organizations like the client organization, Humanitarian Order of Sierra Falconès Incorporated, can be neither be a part of the government nor a business that will gain profit and most of the time, these non-governmental organizations are being provided by the businesses, the private sectors or even the government themselves. Also, Orbista (2012) states that the client organization and its relation to the local government is aiming

to build a collaborative effort to bring out more local developments that made to help improve the country.

Lakshyam (2015) believed that non-governmental organizations have three roles in the making changes for the modern society. The first role is to process communication upward from the people up to the government and from the government to the people of the society. Secondly, non-governmental organizations should give ability for the people to organize the society and enable them to work voluntarily so that social ethics and civic goals will be raised. Orbista (2012) said that the importance these roles of non-governmental organizations is to have them the benefits of effective and efficient services at the local level will sustain that necessity and hope of the citizens like the client organization that extends its benefits to the very least local level. Lastly, non-governmental organizations should try to shape the government programs and principles and become the speakers for the needy. In general, the reasons which motivates the formation of the Humanitarian Order of Sierra Falconès Incorporated are of philanthropic nature and is focused at helping areas pertaining to education and researches this kind of institutions is almost or always financed thanks to their own funds or donations coming from persons or organizations of kinds and it can be said that the organization have the purpose of cooperation and mutual help many of these organization has a specific purpose on collectives or persons with special needs also in vulnerable situations like some of the organization's advocacies such as Libro para sa Sitio, Libro ng Pagbabago, and more. Moreover, Humanitarian Order of Sierra Falconès Incorporated organization transform lives for the better they allow opportunities to grow with these characteristics it drives them to renew their plans (Wiese, 2020).

Importance of Establishing Online Presence

A powerful online presence is not only reserved for product retailers and service companies it also provides non-profit organizations benefits like Humanitarian Order of Sierra Falconès Incorporated needed online presence to help them benefit others. Having a website for the organization can emphasize the efforts which results in awareness and more support and donations from the audience. All this can bring the organization closer to accomplishing the mission and goals. Even if users have neglected the online presence for years establishing a website can work benefits the organization. One of the most rewarding benefits of a great website is that it can help people and effectively communicate essential information about the organization using website it gives people a simplified way to tell the unique story such the story of Humanitarian Order of Sierra Falconès that started from an outdoor activity group that saw natives that were striving in their living thus this made them responsible for helping the natives. Adding a blog to the site has potential to be one of the most helpful tools in the marketing arsenal for attracting new visitors. Blogs are great in connecting to the viewers while increasing the audience size. Having a website helps anyone who is interested in the cause. Having a straight forward contact page makes it clear for people to reach out and donate, get information and more. A great website purpose is not just a place for visitor to learn more about the organization it is a place to strategically highlight the accomplishments and important features of the organization in a way to get more people involved (Cantrell, 2020). One of the way a nonprofit organization can increase their fundraising efforts was by having an online presence, that is one of the needs of the Humanitarian Order of Sierra Falconès Incorporated that is the reason for the organization to must have a good website. Technology was able to create e-commerce

environment where every individual is accustomed to making online transactions by using either of smartphones or computers with these charitable organizations could use this new consumer behavior by creating websites which is informational and also capable in supporting mobile devices. In accordance to technology network about a third of today web traffic is coming from mobile devices with this it is imperative for websites to accommodate mobile users (Guttormson, 2014). With so many marketers competing for the attention of customers online, both small and well-established charitable organization often are left wondering what can they possible do to get the attention of supporters. While it can be as if there are limitless number of channel and platform to use in connecting to donors do not forget that the website is still the hub of the organization online presence and marketing efforts and so is the proposed system in the study. Making sure that the proposed system is viable to all visitor with a logical navigation and short paragraph it will keep user interested. It is also important to understand not only where the users are coming from, but also where on the website they are, this gives users an idea to which of the program and content is engaging to visitors. Once an understanding of how the website is performing it is possible to start a strategy for improving the online engagement with the visitors and donors. Email is a great opportunity to keep the organization top of mind for the supporters but only if it delivers a high-quality content. take advantage of the analytics to learn what the subscribers wish to see and what does not (Diesing, 2018).

The non- profit landscape has changed over years. Organizations like the client organization can no longer rely on phone calls, mails and events to raise money to engage donors nowadays non-profit need to be innovative in their efforts and that is why some of them are investing heavily at websites and digital marketing but not all can afford thus this

study will help them to. Not only is online marketing being less costly and time consuming than normal campaigns it is actually more effective at engaging new donors and increasing awareness. A strong online presence is cost effective and efficient way to create awareness. The better the website the more it inspires people to donate, attend events and support the need of organization, the Humanitarian Order of Sierra Falconès Incorporated specifically in the study. Websites plays an important role in building relationship towards potential advocates and volunteers that the client organization has. A website can help the client organization tell the story in visual, contextual and emotional way helping win the hearts and minds of the potential donors and supporters (Ironpaper, 2015). Organizations such as nonprofits have faced many financial problems there is always a demand for their service yet they were limited in bringing volunteers and hosting fundraising event such as inviting possible sponsors or suppliers for their advocacies. These organizations heavily rely on donations to survive and during the pandemic it has become even more challenging however with the use of social media there are strategies they can use to achieve their marketing goals. Every individual has become comfortable in their digital devices during the pandemic this provides nonprofits a captive audience for engagement. Social media was proven to be an effective tool for every nonprofit organization some of the key benefits these could include would be is that it increases the reach of the organization or it helps them to spread their mission also any interactive content posted in social medias allows their audience to feel more engaged (Tabas, 2021). With the use of social media, like the Humanitarian Order of Sierra Falconès Incorporated Facebook accounts, can quickly connect to donor or individuals who is willing to support the cause in accordance to a survey almost all of the nonprofit organization uses social media platform nonprofit

requires support from partners or volunteers to work on their mission and vision in order to attain the support relation building is essential part of these organization social media marketing strategy. The Facebook accounts for the organization allows them to gain awareness among the population about the objectives in following a good strategy they could generate awareness within a certain point of time these platform also enables the organization to turn the awareness to action by posting visual content related to the mission they could create an impact these visual can tell their supporter their story which could result in gaining more supporters (Goswami, 2021).

These non-profit organization tend to have smaller marketing budgets and thus fewer resources devoted to facilitating online connection with target audience. If internet users do not have the time to sort through appeals or search interesting opportunities and organization is lacking in staff or funds to directly approach the user potential connection is lost. The organization must connect in organic way and existing services are too busy to allow it from happening. Organization has to focus on creating maintaining strong relationship with the audience and doing calls for a carefully crafted and directed communication (Kenny, 2012). The study of Katherine Milde and Robert M. Yawson titled *Strategies for Social Media Use in Non-profits* stated that the aim the study is to detail social media engagement efforts used by successful non-profits and to build to their insights in developing recommendations for an effective social media plan in increasing the visibility and service areas of public service organizations. The topic of using social media by non-profit organization is viewed through a practice lens specific campaign activities in becoming distinguished non-profit organization is identified. Essential parts of the organization's Facebook engagement initiatives that translate into public service

activities includes tying online efforts to the organization advocacies, providing for a dedicated person or team in ensuring pointed social media efforts integrated into existing strategies and developing a cost analysis coupled with bench mark for success. Incorporation of recommended details in the paper may help in expanding the reach if otherwise resource limited public service organization and can foster the transition from having merely supporters on paper to a working with engaged, committed and informed volunteers and also sponsors (Milde & Yawson, 2017).

Usability of Management System

A project management tool, like the proposed system in the study, allows the organization to take on more and accomplish their goals quickly by clearly laying out what resources is available and when will it be available. Some management system allows the managers to see how the resources are shifted and be able to stay on track with other tasks, management system software helps everyone to be on same page. The software also helps in breaking down departmental borders the software highlights opportunities for people to work together newsletter designer can see the content of the newsletter when it has been completed so they could automatically start their graphic piece of project it creates a workflow where individuals are notified when tasks is completed so the next step could begin. The tool is also beneficial to nonprofit organization such as Humanitarian Order of Sierra Falconès Incorporated who performs repeating tasks this includes advocacies, resources reports and others, it is also easier to create templets for the advocacies so that the organization is not reinventing the wheel every time a task comes up (Jackson & Maples, January 2019). Organization needs their records of advocacies in order to find the sources of a problem and find the proper solutions an information system could come in handy

when it comes in storing of data or information. The Online Project Management System for Humanitarian Order of Sierra Falconès Incorporated has many different functions it is capable of performing such as gathering data, storing it processing and then the final output is also capable of controlling the flow of information (Davis, 2021). A project management system is also one of many software tools used for a project information storage. There are many types of this system and are equally diverse of applying these types of systems for optimal benefit of organization some of the component of the project management system is the project control it refers to tasks undertaken by the Program Proponents and Implementers to measure the progress and ensure that it conforms to the plan this is usually dominated by two important factor but there are others as well it involves the control of costs it ensures the project is on track and can be completed within the budget the other is resources it ensures the required supplies and materials are still available and lastly communication it ensures that the stakeholder communication is conforming to the plan (Roseke, 2019).

The major advantage of thinking about the mission and goals in terms of the advocacies in the organization are the social impact wherein can feel incredibly abstract sometimes it can be defined in terms of concrete and measurable deliverables by breaking down the mission and strategic plans into advocacies which is always time bound and clearly defined users are positioning to understand and explain the social impact the organization is having. The project management principles and practices have multiple application in variety of fields these strategies and approaches has been developed overtime in response to the industry and sector specific needs (Gina, 2019). The client organization with some business practices and principles in place will most likely to reap the benefits of

a management system and provide consistent advocacy delivery. Good and solid organizational practices often lent themselves to providing the organization with strategic advantages in the place as they strive to bring continued excellence in the form of product and service for the beneficiaries. In order to continue achieving product and service excellence in this challenging economic time organization has to focus on improving project management practices as the key organization driver will help achieve these advantages for them. The proposed project management system is able to support overall business strategy with clear cut benefits and advantages ensuring that the management system methodology allows the organization cut the overall costs. And the focus on the advantage projects will be more focused on the beneficiaries needs instead of having solutions that does not deliver the expected outcome thus, a more focused and structured management practice allows to consistently serve their beneficiaries well and provide best services (Egeland, 2017). In thinking of increasing the productivity and efficiency for important organization it is critical that users think about project management tools for nonprofit are these organization that often have tons of important work like the Humanitarian Order of Sierra Falconès Incorporated that makes its way through several advocates before it is approved therefore it needs to be in one place where in they could track everything some of the reasons why the need of project management tools is that most nonprofit organization need so there is no need to operate manually. Having a tool like the proposed system where information projects and progress can be stored imperatively it ensures that even when not physically together or online at the same time they could stay in a same page other reason is that it gives leadership in macro level view of projects there are multiple moving parts in a nonprofit organization and Program

Proponents and Implementers need a way to keep track of its members the management system allows them to have access and transparency that they need to run their important advocacies with ease in using a tool with views like portfolio or summary teams can greatly increase team wide transparency and decrease unproductivity the other benefit is that it allows them to track their past advocacies since the organization is in constant initiatives it is useful to them to have a source to track and glance quickly at their past projects with a management system they will have an access to a library of all their past works they have done which they could reference this is helpful for when they will be looking back in past calendar years or projects that they wish to duplicate last is that it will allow them to edit and proof their documents there are often a tons of design, documents or other assets that is produced by fundraisers, social media posts or other marketing efforts with a management tool the organization can easily review their documents providing a real time feedback and ensuring that the loop is closed (Rollings, 2021). Organization whether be it large or small like the Humanitarian Order of Sierra Falconès Incorporated is known to handle numerous projects, plans, tasks and people having a solution can help them keep everything in order while planning and running projects in a way that is accurate can also be predictable and most important profitable some of the benefits of the management system are numerous not long ago the management system was symbolized by three things this are the pencil, sheet of paper, and a methodology however as time and technology evolves essentially project management systems are employed in project planning time management and resources allocation and for a change management the system is among the most useful tools that can help companies in becoming competitive as possible and set users apart from the rest of industry the primary purpose of management system is to

assist project managers as they zip through different project stages some of its benefits was to effortless project planning if enterprise has learned anything in the past years of managing projects it is that most of the time spent in project planning is wasted.

A project management system has moved forward to get people accurate prediction of when will projects be completed capturing the cost, scope and the schedule. The importance of a resource planning is not to be underestimated as it encourages healthier standards for work. Some project management system tool has a feature which spot any resources bottlenecks and gives insights when to bring more people onto team like following a heatmap that provides visibility to workloads of entire portfolio of resources (Kayser, 2020). The project management information system collects and uses information through different software applications. What the software does was to help the organization Program Proponents and Implementers to plan and execute their advocacies. It is a method in organizing the flood of information which prevents the user in drowning from excessive data. There are multiple types of PMIS software yet most of them share the same features. The project management system was made to support aspects of project management and the information it monitors or collect. Some of these areas are integration management or project scope management with this kind of information it is hard to keep track and in managing a project it is crucial to be able to immediately understand the information required at the moment which makes the project management system so important. the tool allows the user to have instant access to the information. It is also crucial in future projects when it comes to reduction of risks and improving efficiencies (Keep, 2019). By not implementing an effective project management it can be disastrous for a Humanitarian Order of Sierra Falconès Incorporated. In accordance to project management

institute, they found that less than twenty percent of nonprofit projects were successfully completed they would consider about half of hundred percent of their project to be challenging which results in late completions or going over the budget worst not achieving their desired outcome meanwhile only thirty percent of the projects are cancelled altogether. With the increase of focus on nonprofit accountability and transparency through monitoring and evaluations the percentages would look bleak. Their failed project is demoralizing for their staffs and also to volunteers which also deters the community they intended in serving and this could ultimately lead in loss of trust from public. On top of those the project inefficiencies it wastes the money of donors as devastating it is for the sector whose passionate and empathic there is good news with a right project management software management could organize the task, track the progress and guarantee accountability and transparency (Moony, 2021).

Benefits of Project Management System

The proposed project management system is a centralized hub for work, task management and project planning it allows the advocates to communicate and collaborate with fellow advocate, keep an accurate advocacy schedule and delegate tasks to the right people. There are tons of advantages and benefits a project management system offers some of it are to establish goals and objectives for advocacies. It is easier for the organization to improve their productivity when there is a clear goal and objective rather than knocking out tasks without any purpose. A project management system helps in setting priorities and allows all the advocates to know what stage in the process other advocates are on this helps in keeping the workflow smooth (Merten, 2021). Program Proponents and Implementers handles many advocacies all the time, managing advocacies

by nature it is not an easy job. Where there are a lot of moving parts it could be easily become chaotic and disorganized it is important to use an efficient project management system to help in staying organized while planning and executing advocacies. The proposed project management tool comes with necessary features needed to plan out advocacies, manage resources and keep all advocates involved regardless the type of service having a project management system can make significant impact. (Khalil, 2021). It has become fundamental for the organization to have project management system as it allows them to optimize the process, ensures that it offers the highest level of efficiency and also effectiveness. While carrying out projects throughout the organization, the software is also one of the most helpful tools that could assist the Program Proponents and Implementers. Incorporating the proposed system can certainly improve the processes it also has distinct advantages this would include the collaboration with team advocates in real time the proposed system would commonly offer communication tool that assist advocacies with the discussions of issues at real time it is beneficial for it allows each team advocates to be updated. Other is that document sharing in project that requires usage of significant documentation a sharing tool allows advocates to edit and update the status of reports which allows transparency and communication. One of the biggest benefits of this project management system is that it lets the management to know any project risks and tracks the resources (Hooks, 2013).

Flexibility of the Utilization of Project Management System

A study was conducted by Iulia Adomnita for the University of Tampere on December 2014 titled Metadata-Based Project Management System. According to author, With the growth of the organizations, projects are becoming more difficult to handle and

managing process becomes more complex and challenging. This case study was made to develop and analyze a new project management system based on metadata-driven M-Files technologies with its necessary feature in managing different projects. One of the key features that this metadata-based project management system has is the project dashboard. This feature allows the user to get a quick review about the information of specific project.

Enterprise Project Oversight System, this system was developed by Vishnupriya Subburaj, which graduated at Anna University, India on 2006. This system was developed in partial fulfilment for her master's degree at California State University in Sacramento. According to Subburaj, the enterprise project oversight system is a web-based system for project oversight professional and help them process oversight portfolio of their information-technology projects. He stated that Project Oversight means calibrating the process of a specific project. The real significance of the system is to deliver the status of the projects to its corresponding stakeholders. The project will focus on the Risk management and provide functions such as capturing issues and providing actions to it as well as guiding the users to the right decision. The system also handles vendor management and oversight reporting modules. In other words, three modules were implemented to this system.

In the research Project Management System Development for Improving Infinitigroup Project Performance, the INFINITIGROUP strives to incorporate a comprehensive project management system within its regular statement of the problem in order to reduce project misbehaviour and damage. The goal of this study is to create a project management system based on the production project planning. The waterfall model

will be used to process and develop a web-based application as a platform to assist project management (Hanief, Pratama, & Awibowo, 2020).

Specifics of Project Management System Development for Large Organizations by Mukhamadiev, Staroverova, and Shustrova (2020), the study focuses on project management systems and the details of the process project development. The goal of this study is to assess one of its primary operating information systems and come up with more effective ways to innovate the value of its output. The prototype system operating on the FengOffice model was examined utilizing Google's techniques for managing software product performance. The Ruby on Rails and NodeJS frameworks have been chosen to create the new project management system as a web-based application. The system's major objectives are to improve the system within the absence of duplicated functionality.

A project method in enterprise management is an essential attribute to the corporate growth because it enables the business to establish its management role in its area of interest. As a result, the corporate produce a project management system that is an effective tool for managing the company's activities titled Creating a Corporate Project Management System in an Organization produced by Erlygina and Savel'ev (2020). The research concentrates on a conceivable typology of project implementation and describes the aspects of project managing in the company's key approach. There is a categorization of projects based on their primary areas of operation. When adopting a company project management system, the difficulties of the it is evaluated, and solutions are established to minimize counteractions.

The study Project Management System in Government: Institutions and Tools by Zunde (2019) is based on a framework which allows for the productive combination of

theory roles, empirical evidences, and semantic stances supported by top researchers in the fields of macroeconomics and regional economics, institutional theory, strategic thinking, developing strategies theories, and productivity. The current method of instituting government guidelines, on the other hand, refers to the nature and business functions of the management system for the development of integrated project management, as well as identifies risks and governmental restrictions for said impactful development of integrated project plans.

The findings of the study, Enterprise Project Management: System Approach, is concern the use of various project management strategies and tools at multiple departments within a company. As a result, upper management primarily employs appropriate project management tools, project control, and project procurement methodologies, such as project supplier dependability evaluation. Project planning and control tools, as well as project change management solutions, are preferred by mid-level management. Project inception and control tools such as project charters, Gantt charts, project status reports, and strategic target plans are used by low-level management. The proposed technique may be utilized in the process of developing Enterprise Project Management methodologies (Ильина & Ilina, 2017).

Most recognized business science and engineering courses in tertiary education are today asking the students to provide significant project report as part of their evaluation tasks in the design and implementation thus, the development of E-Project for the Management System of the project details during project. As a result, students may acquire the most up-to-date information about their project from their supervisors and engage,

communicate, and do other tasks with one another directly through this system (Egwim, 2014).

A Hybrid Intelligent System to Facilitate Information System Project Management Activities by Nemati, Todd, and Brown (2020) is a study paper that presents a viable, archetypal machine intelligence solution to these poorly structured situations. The study illustrates how a hybrid participatory mapping comprising knowledge base and convolutional neural network elements may be employed to help in performance variability validation and deliverables quality prediction. The result of this hybrid model could perhaps be utilized in a typical project management timeframes application to gather forecast data and follow the concerted effort.

The primary purpose of the study, Student Project Management, is to develop a comprehensive framework for managing all project operations. A project management system is a system for managing, tracking, and supervising final-year projects for undergraduates. This is an online application that learners, project managers may utilize. Each applicant must pass the application form. Then, to validate, enrolled users can log in using their login credentials. Once learners log on to the website, users create their personal classes. Similarly, the project guide must log in using its login credentials. Similarly, the facilitator must log in using its login credentials. This system also supplies at least three task scopes to the student organization, and the mobile device allocates the facilitates to the student organization. The Project Leader is a critical subsystem that gives specific projects to students. Coordination exists between the project leader and the project guide. The supervisor assigns the task, and the group's progress chart is created based on the different factors (Soms, Prashanth, Preethika, & Kumar, 2021).

Synthesis

There have been many implications that in order for a non-profit organization such as Humanitarian Order of Sierra Falconès to continuously grow and improve their services is to establish a good online presence by doing that it allows their potential partners to discover their cause in which allows them to expand their reach according to Cantrell (2020). Having a website for the organization can emphasize the efforts which results in awareness and more support and donations from the audience. All this can bring the organization, Humanitarian Order of Sierra Falconès, closer to accomplishing the mission and goals. As stated, establishing a good online presence allows the non-profits organization to tell their potential partners their cause and with their help, they could extend their reach more and helping those who are in need which is one of the study Online Project Management System for Humanitarian Order of Sierra Falconès is objective. Moreover, Project Management System is a type of Information system in which focuses on allowing organization to lay out the plan for the activities allowing them to see thoroughly what will be the necessary requirements in order to complete as stated by Jackson and Maples (2019) A project management tool allows an organization to take on more and accomplish their goals quickly by clearly laying out what resources is available and when will it be available. Project management system incorporates many benefits to which allows the organization to operate more smoothly and without the risk of putting too much time and resources in a single project.

The system Online Project Management System for Humanitarian Order of Sierra Falcones is specifically made to provide a reliable information system that will serve as an aid to provide a better platform for better communication and information dissemination.

The Metadata-based Project Management System provides log in to the computer of the M-Files technology to let their employees use the software. Similar to the Metadata-based Project Management System, the Online Project Management System for Humanitarian Order of Sierra Falcones allow its member to log in using their credential by going to the website allotted to the organization and the difference is the Humanitarian Order of Sierra Falcones can also access this website even at their homes.

Enterprise Project Oversight System, which was developed by Vishnupriya, Subburaj, allows to check the status of the project inserted to the system and provide information about a specific project. The Online Project Management System for Humanitarian Order of Sierra Falcones also allows its user to check the status and of project and administrator has the ability to change and modify a specific project by going to the advocacy module of the system.

Similar to the systems, Project Management System Development for Improving Infinitigroup Project Performance and Project Management System Development for Large Organizations, the Online Project Management System for Humanitarian Order of Sierra Falcones will provide project report and analyzation of the projects. This will make the organization's project success rate to go higher and help more people all over the country. The project report will be the overview from the beginning of the project up until the end and provide transparency to its members and affiliated institutions.

Project Management System in Government: Institutions and Tools is also a system provided to bring productivity and transparency to the government institution for their programs and projects. Same with Online Project Management System for Humanitarian Order of Sierra Falcones, the report module allows the members to check the status the

given reports and provide information about the projects that is already implemented and approved by the program proponents and program implementors.

The project controls and tools were indicated in the system Enterprise Project Management to help the management in organizing information and provide time to the user to focus on implementation and decision making. With the Online Project Management System for Humanitarian Order of Sierra Falcones, forms and information can be validated by the program proponents and program implementors to easily cascade the information to their members. This information can be also access by the members by going to the webpage.

In Hybrid Intelligent System to Facilitate Information System Project Management Activities, certain modules are developed Nemati, Todd, and Brown (2020) to gather data and forecast the result of the project. Using this system efforts of the users will be reduced and allowing them to focus on successful implementation. Just like the same system, Online Project Management System for Humanitarian Order of Sierra Falcones allows the users to check the stability of the project and provide information about the necessary resources to be gathered. With this information being provided, program proponents and program implementors can easily conclude the outcome of the projects.

Student Project Management System was developed to manage and track the final year projects. Log in for different users were indicated on the system such as coordinator log in, student log in and supervisor log in. This system will help the student to easily track their progress and allows the coordinator and supervisor to easily check the status of the student's project. Similarly, to Online Project Management System for Humanitarian Order of Sierra Falcones, the system will have the ability to provide log in page where the

members, from program proponents and implementors up to the cast, can access and view the progress of the project. They can also review the necessary resources for the specific project giving them time to organize and implement actions to increase the success rate of the projects.

METHODOLOGY

Materials

In the purpose of conducting the study, Online Project Management System for Humanitarian Order of Sierra Falconès that aims to develop a suitable project management system for a charitable organization with different modules and each module is a part of the enforcement of the project management system to develop. To accomplish such a project management system, the proponents decided to use applicable software applications to satisfy the required goal. As a general-purpose scripting language, *PHP: Hypertext Preprocessor (PHP)* will be the dominant programming language to use through the use of *Visual Code Studio* that is a known code editor that has been redesigned and adapted for the development and testing of cloud-based applications. Also using *Visual Code Studio*, the developer will connect the *PHP* program to the *XAMPP Server* to easily install Apache distribution that includes *MySQL* that will serve as the query language to query data to the database alongside with *MySQL*. And to generate Use Case Diagram, Activity Case Diagram, and Entity Relationship Diagram, the developer used *app.diagrams.net*, *Justinmind*, and *Canva*. And in distributing evaluation forms, the proponents will use *Gmail*, *Google Forms* to let the respondents to answer the evaluation forms, and *Google Meet* to monitor the circumstances while respondents are answering.

Moreover, hardware devices are required to use in designing, developing, and implementing the project management system. The proponents are using a laptop with the specification of *hyperthreaded CPU, Intel Core i3-3217U @ 1.8 GHz with a 4.00 GB installed RAM and a system type of 64-bit Operating System* and a computer with 8

gigabytes of Random-Access Memory (RAM), Intel i5 for its Central Processing Unit, a 64-bit Operating System running at Windows 10 professional Operating System, NVIDIA GeForce GTX 560 Ti for Graphics Card and 1 Terabyte of Hard Disk Drive (HDD).

Method

In the process of completing the research, Online Project Management System for Humanitarian Order of Sierra Falconès, the proponents utilized Software Development Lifecycle (SDLC) to design, develop, and evaluate the software quality to develop.

According to the 2012 version of the Waterfall Model (Figure 1) written by Shelly and Rosenblatt, the model explains the activities and services performed by all system developers deliver results in spite of the manner they use. The outcome of each step is referred to as a deliverable, or an end product, in the waterfall model, and it flows into the following phases consists typically of five phases: the systems planning, systems analysis, systems design, systems implementation, and the systems support and security.

The Software Development Lifecycle (SDLC): Waterfall model is chosen to guide the development of proposed system because of its relativity and appropriateness to the software to develop, the organization, and the developers themselves. Moreover, the model is used because of the complications of the system that have different modules to complete because of different necessities in the organization thus the model iteration between phases is possible. Furthermore, the model is applicable for the study because the proposed system to develop can be arranged in to different phases with deliverables to track the progress of the proposed system, resulting in need of heavy recording of supporting documents, as well as the phases iterative process can also provide flexibility as compared to other methods.

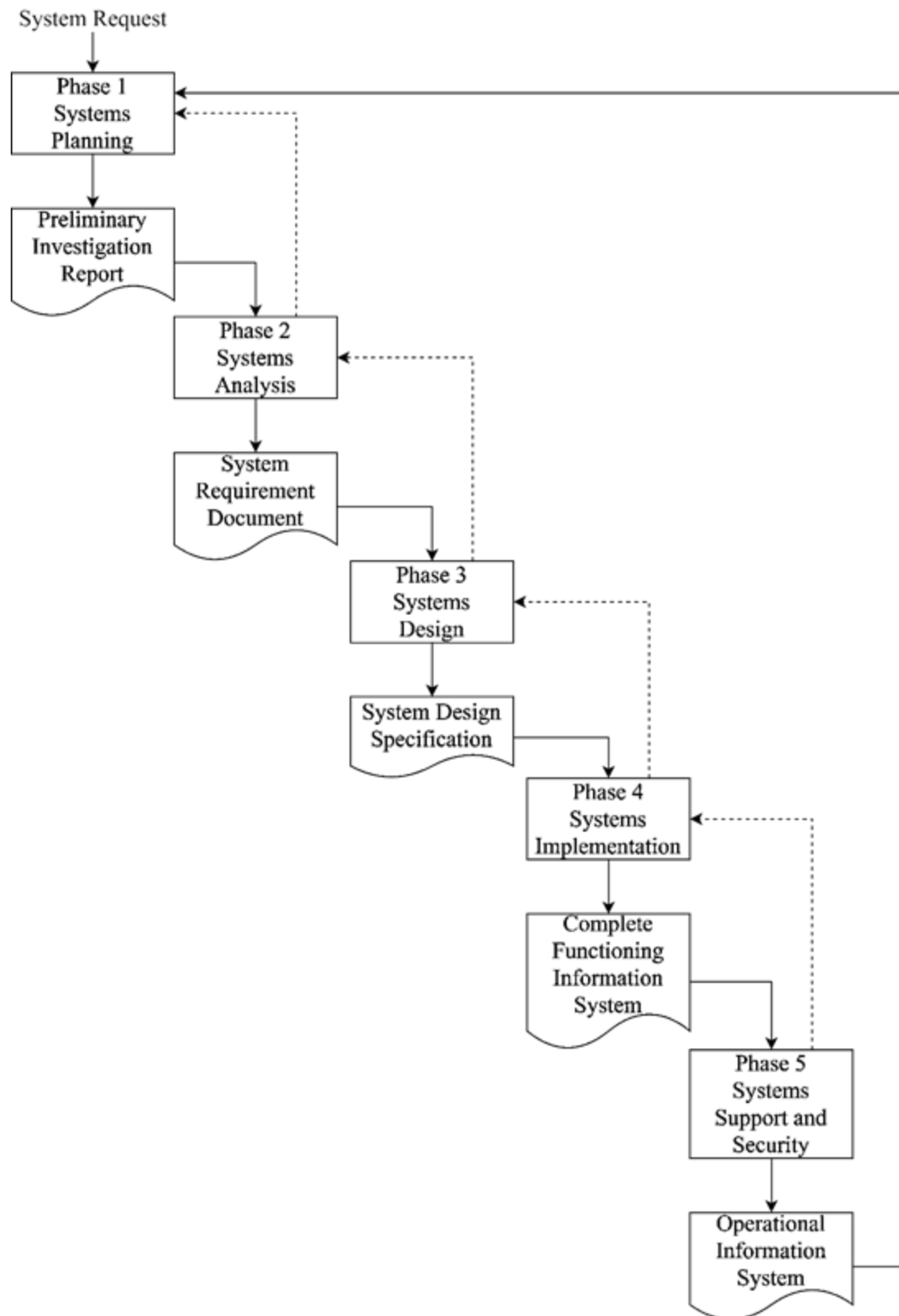


Figure 1. Waterfall Model (Shelly & Rosenblatt, 2012)

Following the completion of each phase, deliverables are required after. As shown in the picture, the full arrow represents the essential next actions to take or accomplish, while the dashed arrow represents the phases the proponents can potentially return to. An iteration is possible after the last step by following the full arrow from the last step into the first step.

Systems Planning. As defined by Shelly and Rosenblatt's 2012 Waterfall model, this begins with a system request to the IT department. In the case of the client organization, the proponents conduct an interview to discuss the organization's desired problems or improvements, the proponents asked first for the organization's Director to conduct an interview then as shown on an interview sheet (Appendix 1) the proponents' inquiries were answered in Google Meet meeting. During the interview, the client addressed the problems about the organization's project management, also it acts as a preliminary study to establish technological innovation opportunities that will reflect throughout the complete development process. Accompanied by a feasibility study (Appendix 2) that is a part of the initial report since it analyses expected benefits and costs and suggests a decision-based on different (Corporate Finance Institute, 2020). The feasibility study in Appendix 2, discusses the project scope of the system that include the clients background and problems that result to formulate the scope of the system, as well as the dates where system will be developed. The analysis part discusses what will be the systems role in the client that is to be replace a manual system with an innovative software system. The requirements in the feasibility study specified the requirements given by the client to be a reference in the production of the system. The approach includes all the materials that will be used in the

development of the system. And with the evaluation in the feasibility study summarizes the needs of a project management and other components.

Systems Analysis. The goal of this phase is to provide a conceptual design for the proposed system. The first phase is requirements designing, which involves proponents investigating the organizational processes and documenting what the proposed system must perform to meet the study's goal.

This phase includes a finding process that includes such methods that the proponents conducted such as the interview with the client organization regarding the needs and wants of the organization for the proposed system through virtual conference using Google Meet software application. The client organization also handed documents regarding the processes, guidelines, regulations and its organizational structure that the proponents use to analyze the real need of the client. The results in the fact-finding will be the basis of the whole proposed system's process, models, and diagrams for it will serve as a guide what facts the proponents needed to input or formulate in accordance to these facts.

Figure 2 depicts the organizational process as an Input-Process-Output diagram to explain how data circulates through the organization while, in Figure 3 the proposed system's Input-Process-Output diagram is used to represent the proposed system's goals for the organizational process. The inquiry that begins during the first phase is carried on during the requirements modeling phase. This phase is accompanied by the deliverable system requirements document (Appendix 3), which contains the purpose. The purpose part in the system requirements document explains the main purpose of the proposed system which is to develop the system's modules and the system as a whole. The user requirements specify the proponents needs of documents for the client organization to

provide to be reference in the proposed system. Cost is also included in the system requirements document that includes the estimated cost of the web hosting expenses of the proposed system. Benefits the system is also included as well as the alternative development strategies to use in case of any complications.

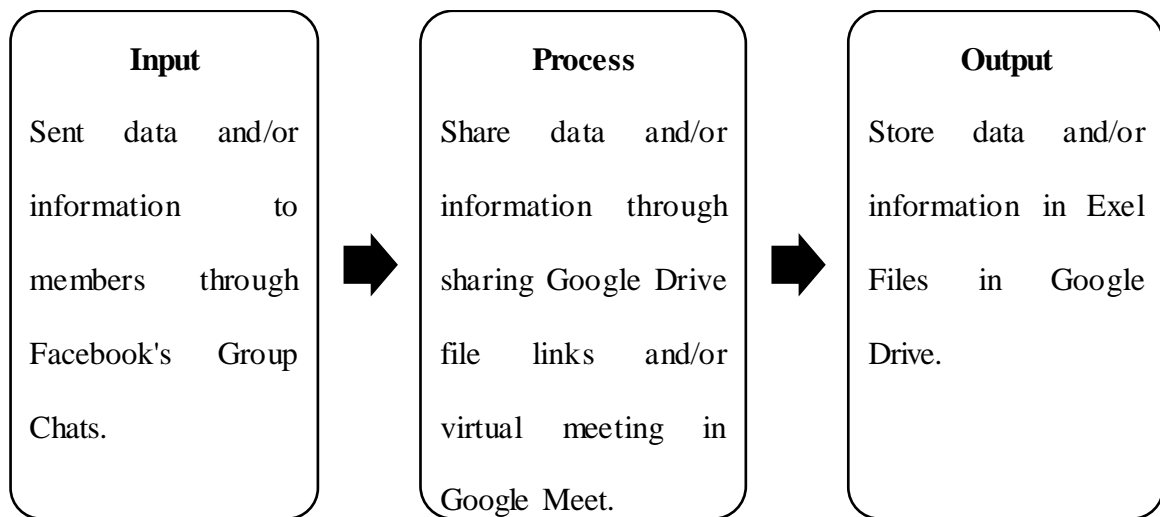


Figure 2. Input-Process-Output Diagram of the Organization's Manual System

The manual system of the organization shown in the input-output diagram leads the organization to use different platforms, such as Facebook and Google Apps, to be able to fulfil the organizational process of sharing information nationwide to aid the location distance issues of its members that could lead to unavailability of resources. Furthermore, the proponents designed input-process-output diagram of the proposed system (Figure 3).

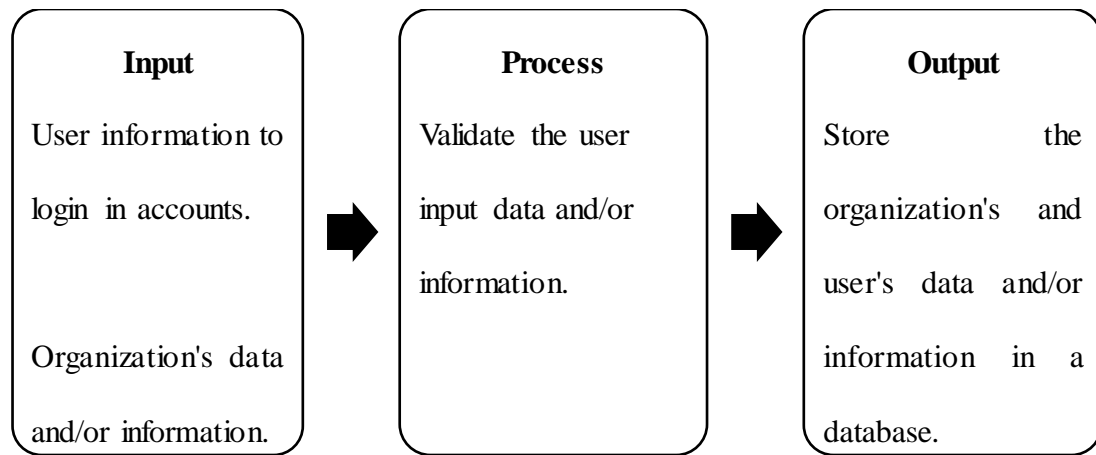


Figure 3. Input-Process-Output Diagram of the Proposed System

The proposed system by the proponents shown in diagram extends the system to develop to only load in the information needed in each module. The system only allows the user to open, add, or modify the module that the login details allow to open. And allow the data be saved to a database and have it backed up if needed. If during this process modification or adjustments are needed, the model allows proponents to go back to the system analysis phase if not applicable to the system design phase.

Systems Design. The third phase is focused to the creation of a physical model that meets all of the system's specified requirements. The proponents have designed the architecture of the process of data and the physical visuals of the proposed system based on the formulated solutions of the proponents for the problems identified by the client that includes the Program Proponent and Program Implementer interface and the member's interface.

The architecture of the processes is determined based on what architecture best describes the processes that the proponents use to conduct the study that includes the use

of internal controls the proponents develop such as Entity-Relationship diagram that describes the relation of the data in the schema. An Activity diagram is also designed by the proponents that describes how the process in the proposed system will be used and utilized. As well as the Use-Case diagram that is designed to describe what actors in the organization will use the activities or use cases in each module developed in the study to ensure that the system is dependable, precise, manageable, and safe is a part of the internal control that is designed by the proponents. The internal control is designed by the proponents based on the needs of the processes in each module. The proponents also develop external control will be required to picture the proposed system's future state using wireframes (Appendix 4) based on what the clients demanded for visuals while having the purpose that solves the organization's complications. The proponents have designed the wireframes based on what is the functions of the proposed system that includes its input, output, and process that is based what is the vital input, output and the existing processes in the organizational process. Likewise, the proponents made sure that the external control depicted in the proposed system's wireframe will be based on the need of each process in the organization and will fulfil the functions of each module in the proposed system.

The waterfall model of Shelly and Rosenblatt in 2012 also describes that after the system design phase's end product is delivered and checked if applicable to the next phase, the proponents can iterate this phase to make adjustments to fix the systems design phase process. The proponents have constructed an Entity-Relationship Diagram for the design of the database of the proposed system (Figure 4).

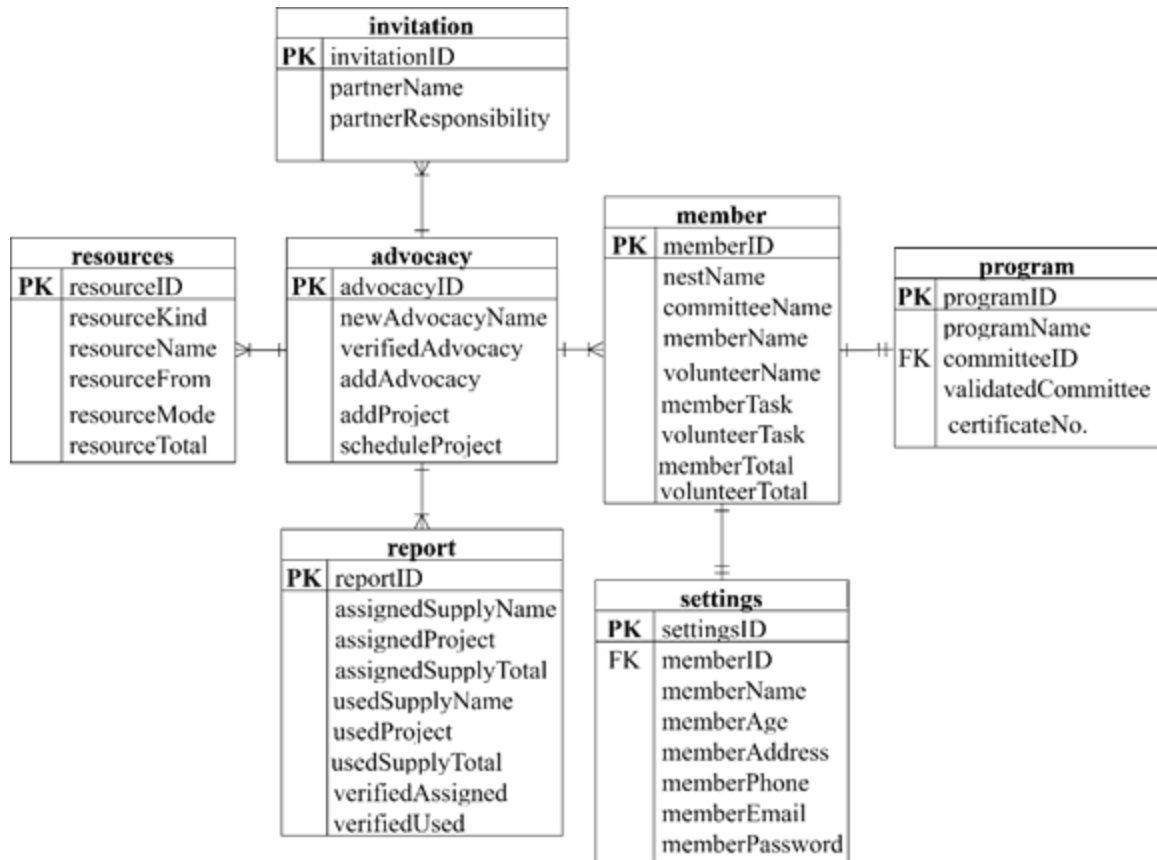


Figure 4. Entity-Relationship Diagram of Online Program Management System

The illustrated diagram by the proponents shows the connection of the database of the system. The diagram describing that each advocacy that the organization have can have one or more partner suppliers to invite, resources, members and report. While each member should have one and only one program and settings. The proponents also designed the flow of activity to be done by each module illustrated in Figure 5.

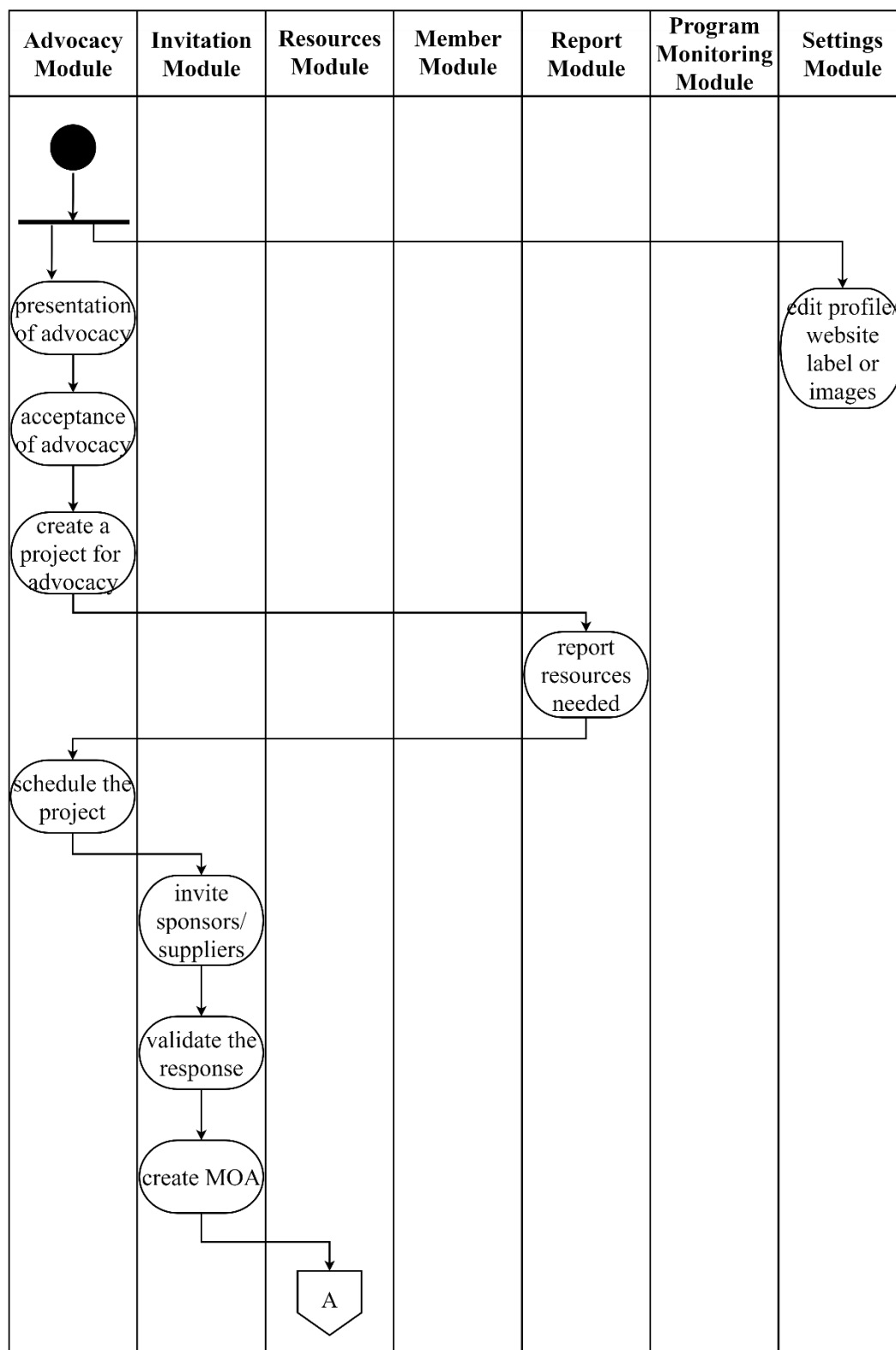


Figure 5. Activity Diagram of Online Project Management System for Humanitarian Order of Sierra Falconès

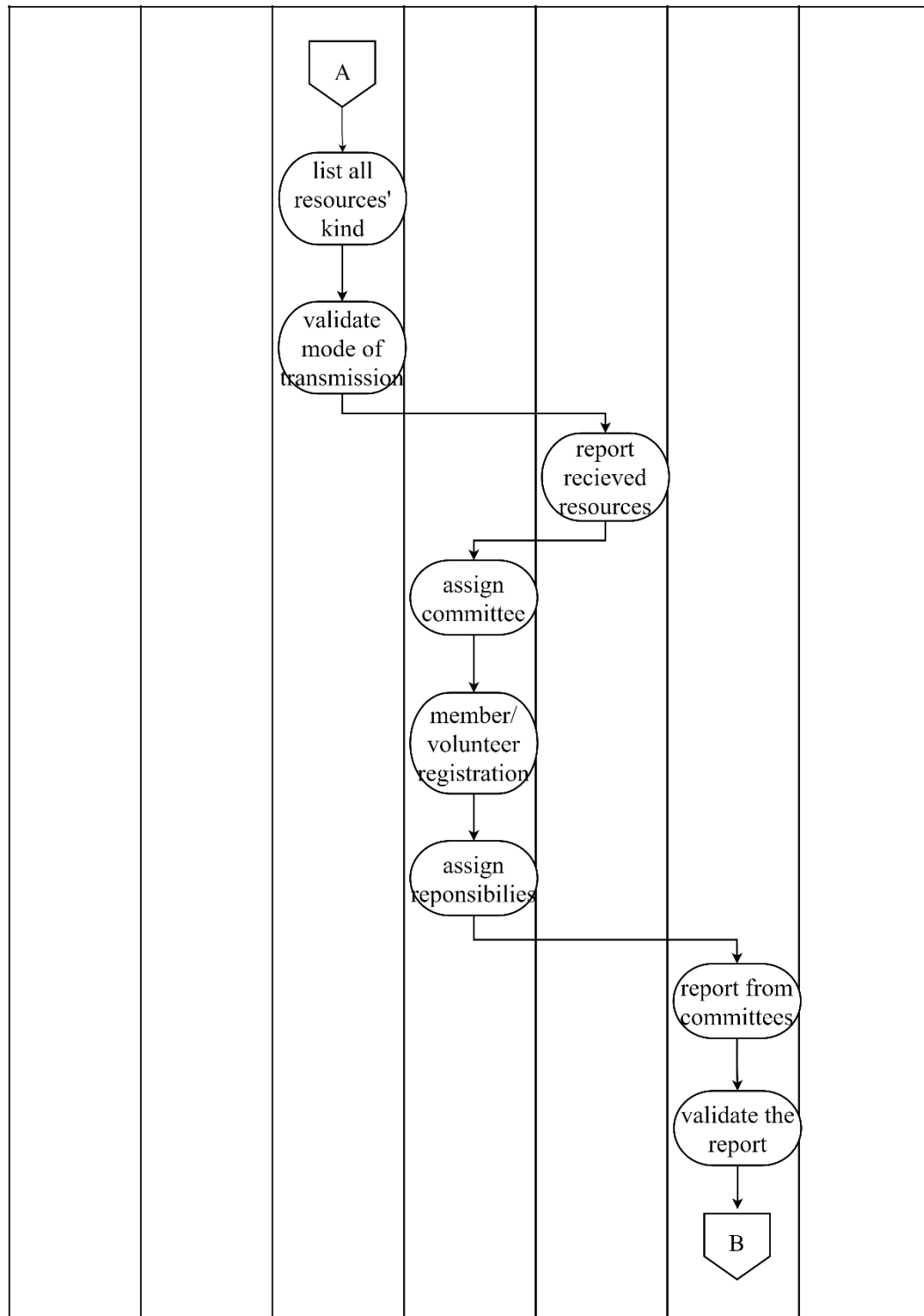


Figure 5. Continued...

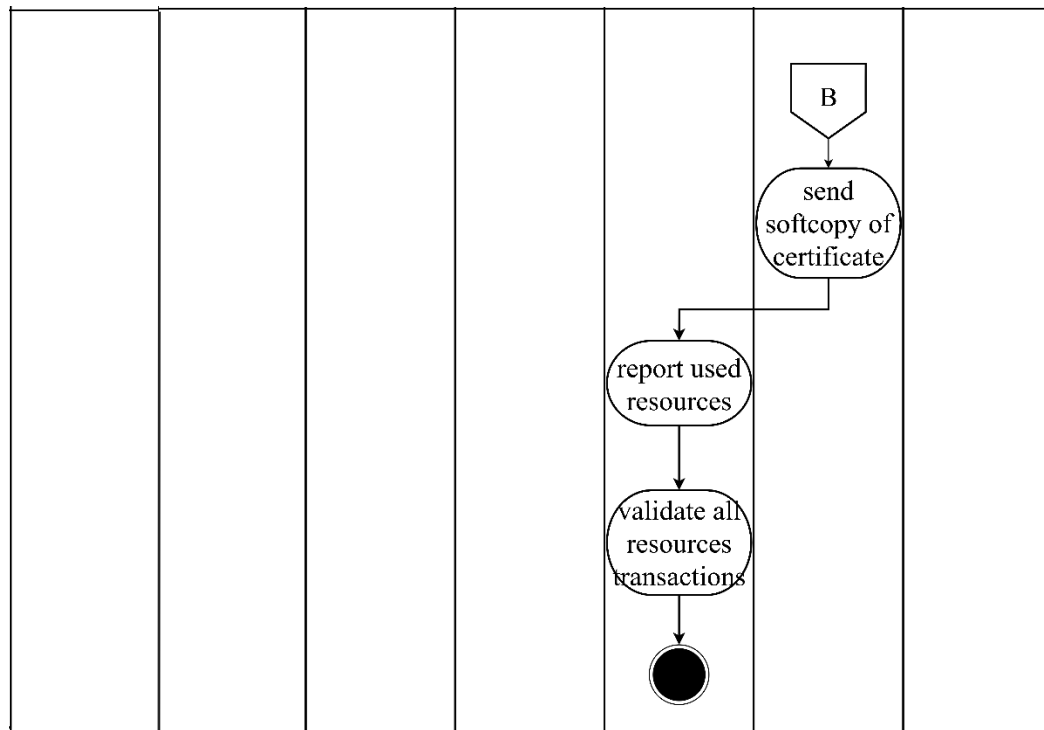


Figure 5. Continued. . .

Figure 5 designed by the proponents shows that each module depends on the outcome of each other and each module should have first conducted or performed to continue to another module from the top to bottom. The advocacy module can be accessed if the user had an account to the website, however if the user doesn't have an account, he/she must first register for an account. Then the following steps in each module will continue to flow if the user has already granted for an account. And the limits of each user type in each module will be shown in the next figures, specifically the advocacy module of the study using the various functions in the project management system to be developed is shown in Figure 6.

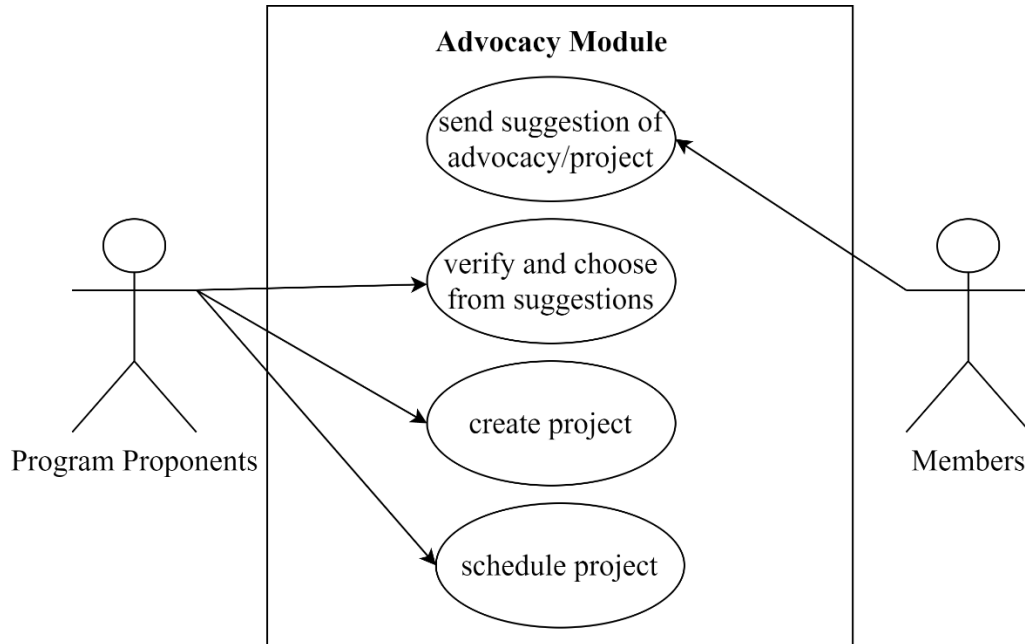


Figure 6. Use Case Diagram of Advocacy Module

A Use Case Diagram discusses the relationships of the actors, the use cases that the actors are related to, the modules included in the study for the proposed system and the proposed system itself. Thus, in Figure 6 the advocacy module of the study has two actors representing its user types: the program proponent and the members. Being the program proponent, the system will allow the program proponent to create a project regarding or referencing the presentation of suggestions of an advocacy or a project the members have suggested. These suggestions sent by the members will then be approved by the program proponents. When the project was formulated or created under an advocacy, the system will allow only the program proponents to schedule the created projects.

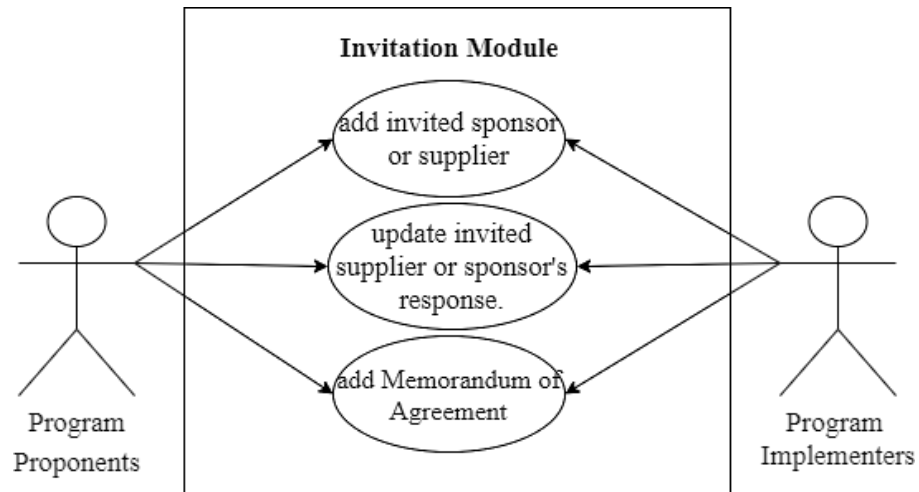


Figure 7. Use Case Diagram of Invitation Module

Illustrated above, the use case diagram for the inventory module that describes that allows the program proponents to upload letter sent to partners, to add the partners' reply regarding the invite and to add memorandum of agreement between the organization and its partner. While illustration of resources' use case is shown in Figure 8.

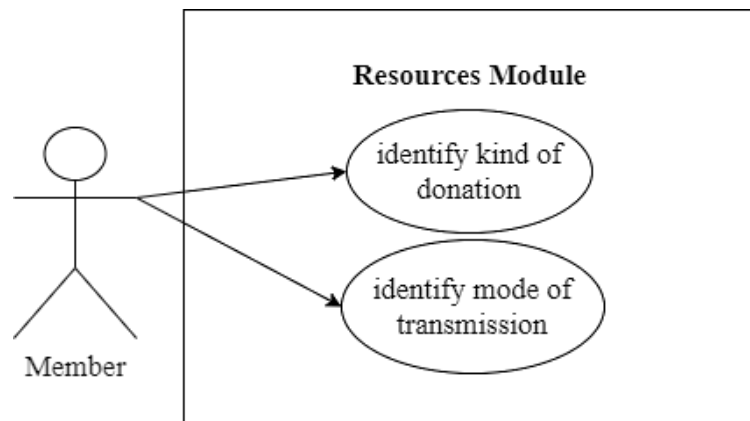


Figure 8. Use Case Diagram of Resources Module

In Figure 8, shows the use case diagram of the resources module of the study that describes the relationship of the program proponents to the use cases. The resources module of the study will allow the program proponents to identify all incoming and received donations' kind and the mode of transmission that the sender. Meanwhile the use case diagram for the member module is illustrated in Figure 9.

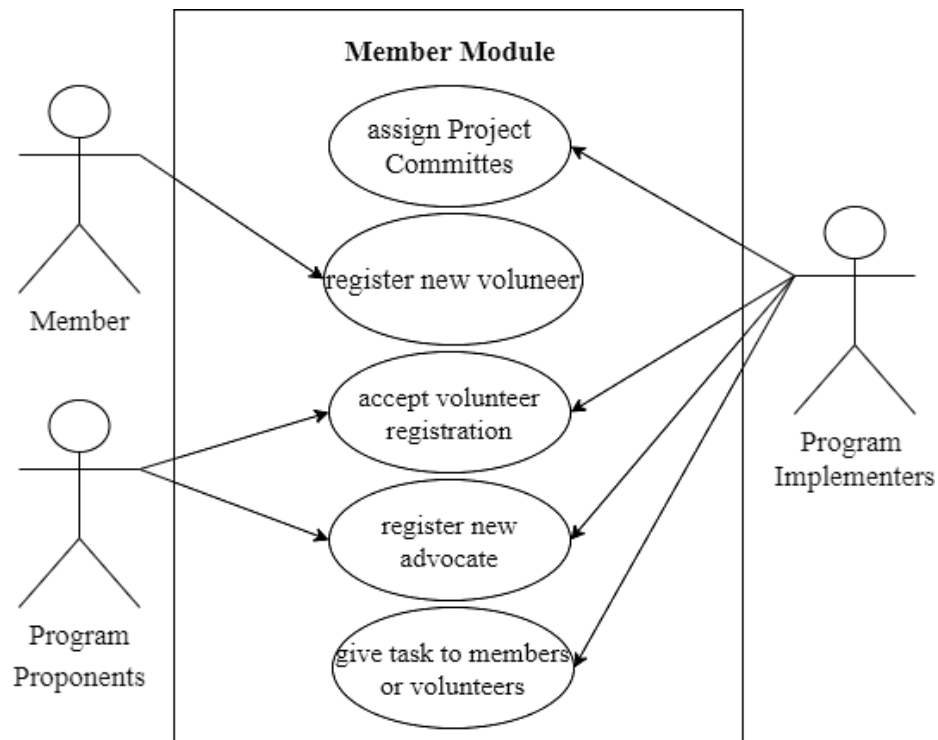


Figure 9. Use Case Diagram of Member Module

The member module's use case diagram has two actors, the program implementers and the members. The Figure 8 describes that the system will allow the program

implementers to assign the project committees in the members. Before the program was implemented for the beneficiaries, the new members or volunteers needed to first register in the system and the member module will allow them to. And the program implementers in the local level will be allowed to accept or deny the request made by the new members and/or volunteers. When the individuals involved is summed up, the system will allow the program proponents to give task of their responsibilities. While the monitoring module of the study has a use case diagram illustrated in Figure 10.

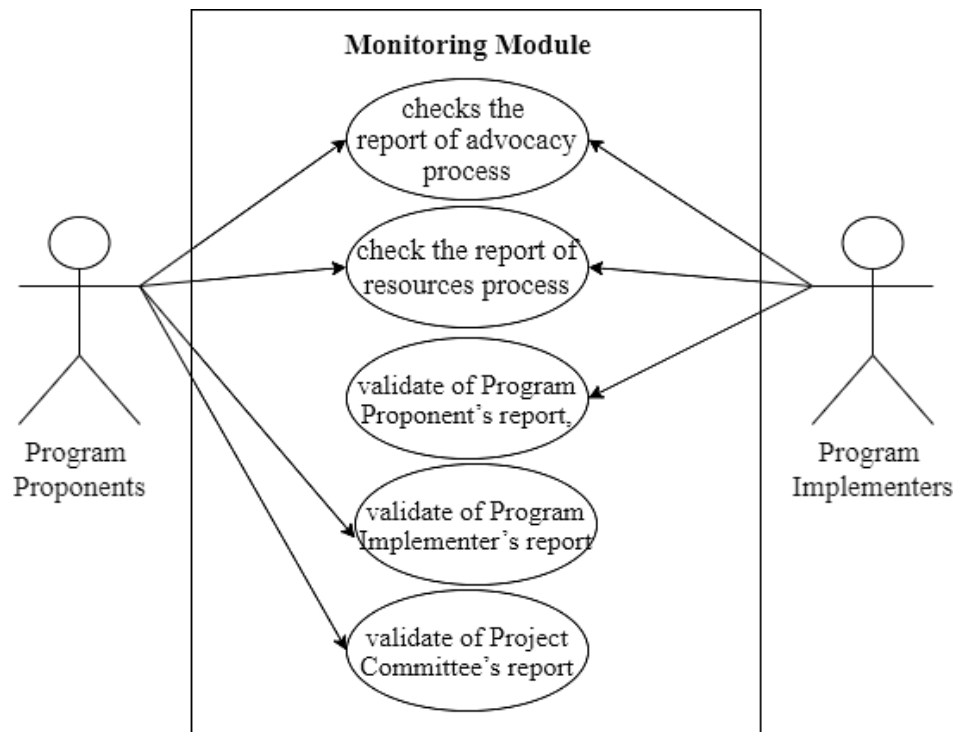


Figure 10. Use Case Diagram of Monitoring Module

The Figure 10 illustrates the relationship of program proponents and program implementers to the use cases included. The diagram describes that the proposed system

will let the program proponents and implementers to check on the progress of advocacy and resources delivery and validate the project committee's report. Also, it allows only program implementers to validate the program proponents' report while the program proponents validate the program implementer's report. A use case diagram is also constructed for the report module in Figure 11.

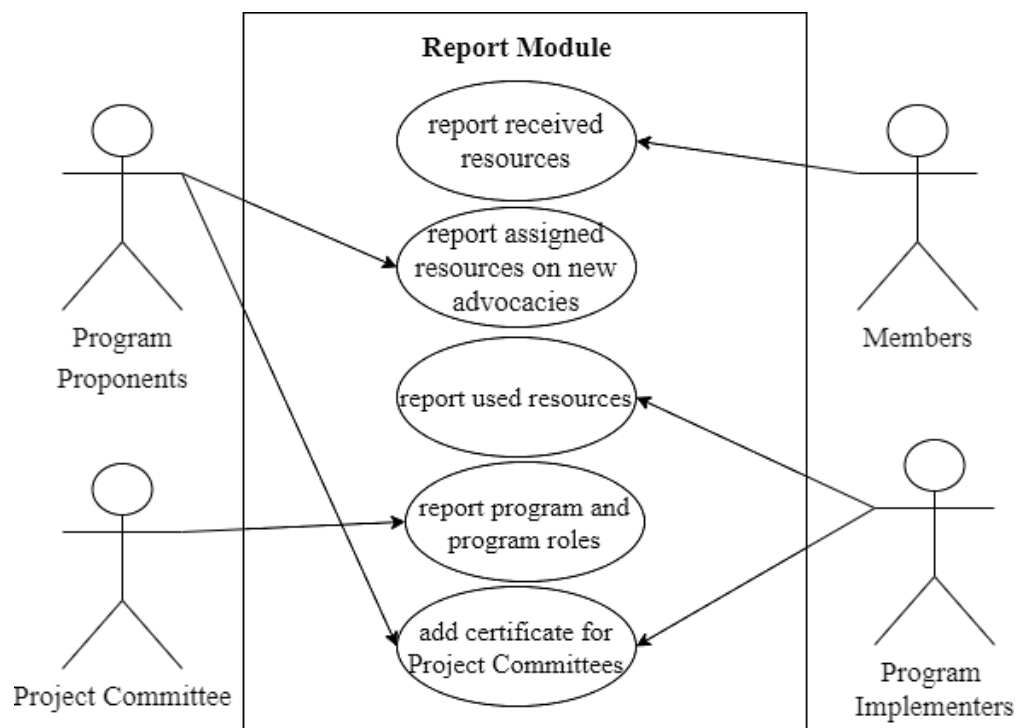


Figure 11. Use Case Diagram of Report Module

The figure above, Figure 11, shows a use case diagram for the report module of the system. The diagrams describes that the proposed system will allow the members to update the report on received resources. This also allows the program proponents to add report for the assigned resources, the program implementers to add reports of used resources, and the

project committee to add report including their roles performed in the execution of advocacy. While the program proponents and implementers can both add softcopy file of certification of appreciation. Also, for the settings module of the study, the proponents created a use case diagram shown in Figure 12.

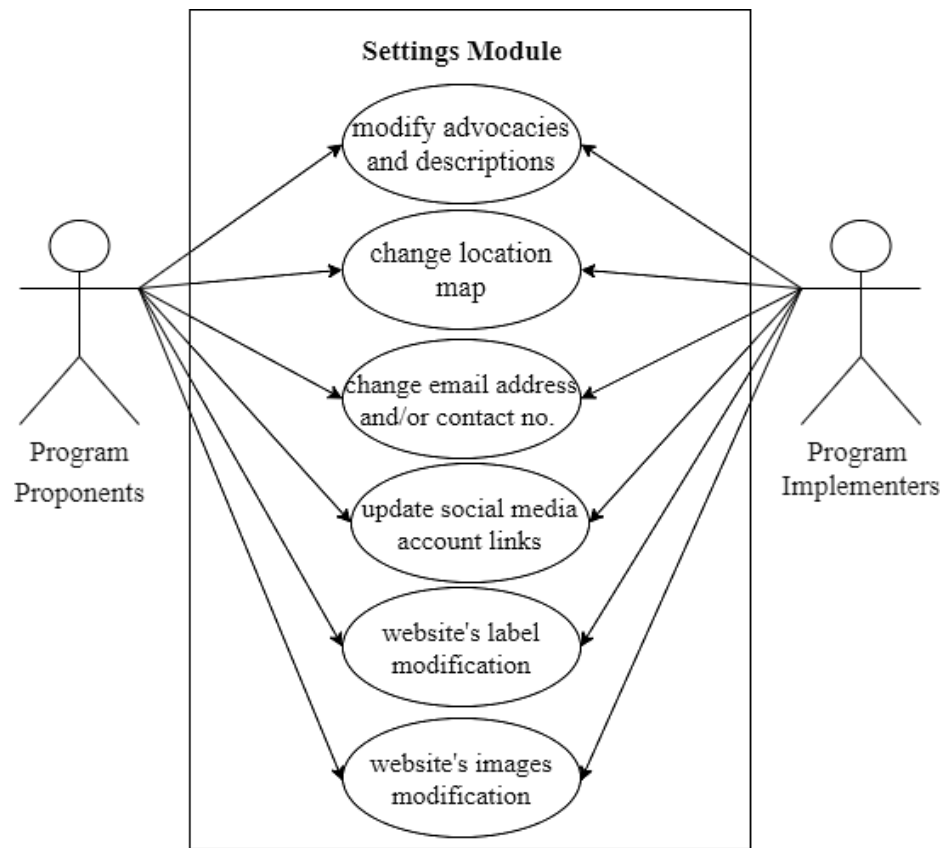


Figure 12. Use Case Diagram of Settings Module

The last module of the study, describes that the proposed system will allow the program proponents and implementers modify the organization advocacy and its

description, the organization location map displayed in the system, the contact details, the social media links, as well as the label and images in the system.

Systems Implementation. During this phase, all the stages that have finished will be leveraged to set as reference for the coding of the system. The systems implementation phase will be the phase for coding the intended suggested system from module one to seven using all the goals the developed in the prior three stages. The coding of the proposed system will be based on the system wireframe (Appendix 8) start from the first module up to the last module, covering the Program Proponent and Implementers interface and member's interface. The advocacy module is the first to code because the functions in this module are the primary start of any processes in the system, with the creation of advocacies. The second module is the invitation module, which has the functions: invitation of potential partnerships, sponsors, or suppliers for the advocacy made is important to be the reference of the next module to make. The third module to code is the resources module, which allows the organization to state the resources gathered from suppliers or sponsors. This module is ideal for being the third module to code because the data it requires will be supplied by the previous module. The fourth module will be the member module. The member module will allow the system to include a key component of the process, which is the tasking of members. As a result, the advocacies will have all of the needed elements completed before the process begins which is the advocacy itself, the sponsors, the resources and its members. The report module is the next module to be created. This module, will allow the system to record all reports that have been made in the previous modules. The monitoring module will then be created, which will function as a page for monitoring the reports recorded in the previous module. Finally, the settings module for

this module is vital, but it is merely an addition to the system for regulating updates and modifying the system.

The technique is the same whether the proponents use structured analysis or other approaches, programs codes will be constructed, then evaluated using system evaluations that will test if the system satisfies the goal of the proposed system, record all of the results, and finally the system will be implemented. The proponents will then be setting up the proposed system and make adjustments as needed. This phase's goal is to create a fully functional and documented project management system. The proposed system will be ready for usage at the end of this phase. The proponents will extend the usage of system evaluation using the following tools:

Unit Testing. This is when the proponents will test all of the system's components to see if there are any faults or defects. The modules include the advocacy module, the invitation module, the resources of activities module, the member module, the report module, the monitoring module, and the settings module; the database is used for security, and the platforms include Google Chrome, Microsoft Edge, and Mozilla Firefox. To document the results of each module, security, and platform that will be evaluated, an evaluation form for unit testing (Appendix 5) will be produced. Each module will may receive successful and failed remarks.

System Testing. The system will be tested in this phase using an evaluation form adapted from the International Standard Organization ISO-25010 (Appendix 6), that contains of thirty-four questions with the functional suitability, performance efficiency, compatibility, usability, reliability, security, maintainability, and

portability criteria which will be evaluated by the total of eighteen evaluators specified as two IT professionals with minimum of five years of experience, two database and two IT personnel, five organization members, and 5 officers.

The Functional Sustainability criteria include the first four items in the system testing. The first item evaluates and rates the inclusion of the modules in the system. The second item rates the functions that each module is said to perform. Third, rates to the items that the system is capable of producing or generating. The fourth item rates the system functions that correspond to the set of objectives. The next three items in evaluation will be included in Performance Efficiency criterion. The fifth item in the allows the client to rate the response time when performing various task in the system. The sixth item rates the system's level of performance when more than hundred number of users are accessing the system. And the Seventh item rates the system management within hundreds amount of data/information. The items eight, nine, and ten are part of the Compatibility criterion set. The eighth item in the system testing will evaluate the system's performance with its functions while sharing a common environment and resources with other products without causing any harm. The system's ability to import data is rated ninth. The tenth item allows to rate the system's ability to save data. Meanwhile, the Usability Criterion will include the next eleven system testing items. The eleventh item assesses the system's use of consistent terminology. The system's consistency within its layout or user interface is rated twelfth. Thirteenth, the system's consistent position on the screen for error messaging is rated. The fourteenth item assesses the system's use of clear titles for function buttons. On the

fifteenth, rate the memorability of the system's command buttons. The sixteenth item assesses the system's use of on-screen helpful messages. On the seventeenth, the system's ability to operate in accordance with the transaction procedure will be evaluated. The eighteenth allows to rate the required data availability in the system. The system's responses to invalid input are rated nineteenth. The twentieth allows clients to rate the interface's appearance. The system's accessibility is rated on twenty-first item based on the user's designation. Items twenty-two, twenty-three, and twenty-four belongs to the Reliability criterion. The twenty-second criteria were about the account's username and password are encrypted when it was saved in the database. Twenty-third rates the system's accessibility to all its users. And the twenty-fourth item rates the system's capability in handling errors. The next four items in the evaluation were included in the Security criteria. The twenty-fifth item checks if the data inside the system can only be viewed by the system's administrator. Twenty-sixth checks if the system provides identification and authentication of system users through the use of username and password. Twenty-seventh checks if the system assigns unique identification for each user for monitoring of unwanted user behavior. And twenty-eighth checks if the system allows the user to update the information of their account. The following three items were a part of the Maintainability set of criteria. Twenty-ninth allows the client to check and rate the system application of changes to the entire system using its content management feature. Thirtieth, checks if the data or information in the module can be reused by another module. And the thirty-first checks if the system can be easily tested. In addition, the Portability criteria includes the last three items

in the system testing whereas the thirty-second item checks the flexibility of the system if it will be moved to different environments. The thirty-third, checks if the system can be installed easily. And last item checks if the system can easily replace other software.

The evaluation will be answered through online Google Forms since physical interactions is limited. Google Forms is useful for this study as it is a free web application that immediately generates forms for gathering feedback. With its user-friendly interface, any participant having basic internet knowledge may build and respond to forms using this application (Melo, 2021). Furthermore, Google Forms collects feedback then analyses it to create easy to understand charts and graphs which assist the form's owner in interpretation and analysis with the data obtained (Google Marketing Platform, n.d.). Gmail will be used to disseminate the assessment forms that will be filled out with Google Forms. The proponents will also use Google Meet to introduce the forms to the client and to manage any concerns or complications that the client may have while filling out the forms.

Following the evaluation of the system by the respondents, the responses will be tallied and subjected to weighted mean calculation using the MathIsFun (2017) formula where \sum is the summation, w is the weight and the x is the value. And the indicators will be scored on a scale of 1 to 5, with 1.00 – 1.80 being Poor, 1.81 – 2.60 being Fair, 2.61 – 3.40 being Satisfactory, 3.41 – 4.20 being Very Satisfactory, and 4.21 – 5.00 being Outstanding.

$$\text{Weighted Mean} = \frac{\sum wx}{\sum w}$$

While the use of standard deviation will be utilized after identifying the equivalent indicator, standard deviation will also be computed to determine the tightness of all samples located around the mean to approximate or estimate the population standard deviation (Bhandari, 2021). The formula below is the standard deviation formula where s is the sample standard deviation, \sum is the sum of, X is each value, \bar{x} is the sample mean, and n is the number of values included in the sample. Whereas the results will be interpreted in the scale of 1 to 5 wherein 1.00 - 1.80 is poor, 1.81 - 2.60 is fair, 2.61 - 3.40 is satisfactory, 3.41- 4.20 is very satisfactory and 4.21 - 5.00 is outstanding.

$$S = \sqrt{\frac{\sum(X - \bar{x})^2}{n - 1}}$$

Acceptance Testing. This evaluation is the assessment that determines whether the proposed system is ready for implementation and deployment. The organization's director will assess the proposed system using the acceptability testing (Appendix 7), which consists of sixteen questions with the following criteria: effectiveness, efficiency, satisfaction, freedom from risk, and context coverage. Likewise, in assessing the evaluation, Google Forms and Gmail will be used to distribute the evaluation form and Google Meet to assess the organization director while evaluating. As the organization director browses the system and analyses if the features are correctly functioning, the proponents will describe the expected functionalities of each module that the system has.

There are five criteria in the Acceptance Testing. The first criteria are the Effectiveness criteria that include the first four items in the system testing. The first

item evaluates and rates the inclusion of the modules in the system. The second item rates the functions that each module is said to perform. Third, rates to the items that the system is capable of producing or generating. The fourth item rates the system functions that correspond to the set of objectives. The next three items in evaluation will be included in Efficiency criterion. The fifth item in the allows the client to rate the response time when performing various task in the system. The sixth item rates the system's level of performance when more than hundred number of users are accessing the system. And the Seventh item rates the system management within hundreds amount of data/ information. The next four items in the system testing were included in the Satisfaction criteria whereas the seventh item checks if the system achieves its realistic goals, including the results of use and the consequences of use. Eighth item assess if the system works well based on its modules. Ninth rates the level user feels satisfied when he/she finished his/her task through the use of the developed system. And the tenth item rates the user satisfaction on the totality of the developed system. The items eleven, twelve and thirteen is part of Freedom from Risk criteria. Eleventh item checks if the system promotes and build good reputation to the client based on the information provided by the system. Twelfth, checks if the system promotes data privacy by adopting user's level of accessibility. And thirteenth checks if the system promotes the client's function based on its intended context of use. The last two items in the evaluation were under the Context Coverage criterion. Fourteenth checks if the system can be used with effectiveness, efficiency, freedom from risk and satisfaction in all the specified contexts of use and the last item checks if the system

can be used with effectiveness, efficiency, freedom from risk and satisfaction in contexts beyond those initially specified in the requirements. After gathering the results in the acceptance testing, the data collected will be computed and interpreted using the same weighted mean and standard deviation formula used in the system testing.

After implementation of a complete functioning system, user training where the end-users will be introduced to the new technology, this process will focus on the user interface of the system where identifying individuals that are technology competent is important to know to assign key person in case of unwanted circumstances however, the user training involves the sharing of needed information thus the end-user could handle errors before it needed an IT assistance.

User training also will be accompanied with a user manual that is a printed guide for the end users in the process or after the user training. The user manual will include the introduction of the system developed, its purpose and scope, the module references on the organization's process, the system capabilities, the description of each system module's functions, how to initiate and maintain the processes, error handling, and how to get help from the key person or if necessary, with the developers. Moreover, the completion the implementation of the system is also a part of the last preparations.

Following data gathering, the results of the acceptance testing will be calculated and interpreted using the same formula, the weighted mean and standard deviation formula discussed that will also be applied in system testing.

And after the delivery of this phase's end product: a complete functioning system, the model allows the proponents to review if it is applicable to the next phase and if modifications and iteration is needed the proponents should go back to the previous phase.

Systems Support and Security. In the last phase, the system will be ready for deployment. The key person in the organization will be identified to share the knowledge about the IT related methods on the system. In the turnover of the system, maintenance, enhancement and protection of the of the proposed system will also be discussed. The turnover of the system will be held in a virtual meeting where the IT related members of the client will be formally handed the complete and functional system for the organization. However, the proponents will first set the system to upload in the internet. With the request of the client .org end of domain name, the system will be uploaded on HostGator web hosting. HostGator is the proposed web host for the system for it has the lowest starting price of web hosting while the payment will be handled by the accountant member in the organization. Maintenance, will that happen after implementation of the proposed system and the proponent will maintain the proposed system by making changes to the system or a single component to change attributes or boost performance of the proposed system and the proponents will maintain the system for a week for the organization to quickly cope with the changes. These changes will occur as a result of either customer-initiated update requests or vulnerabilities discovered during live system use. The built system will be maintained within only three months after the implementation if required or demanded by the client organization. To maintain the system, proponents may improve and add additional features and benefits. During this phase, the goal is to optimize the return on the IT investment. External and internal risks are protected by security procedures. The

proposed system will be developed to be safe, dependable, easy to maintain, and expandable.

After this phase an operational information system should be recorded as an end product. However, if iterations in the information system is needed the proponents should go back to the first phase for each phase is important to adjust the information system as an end product.

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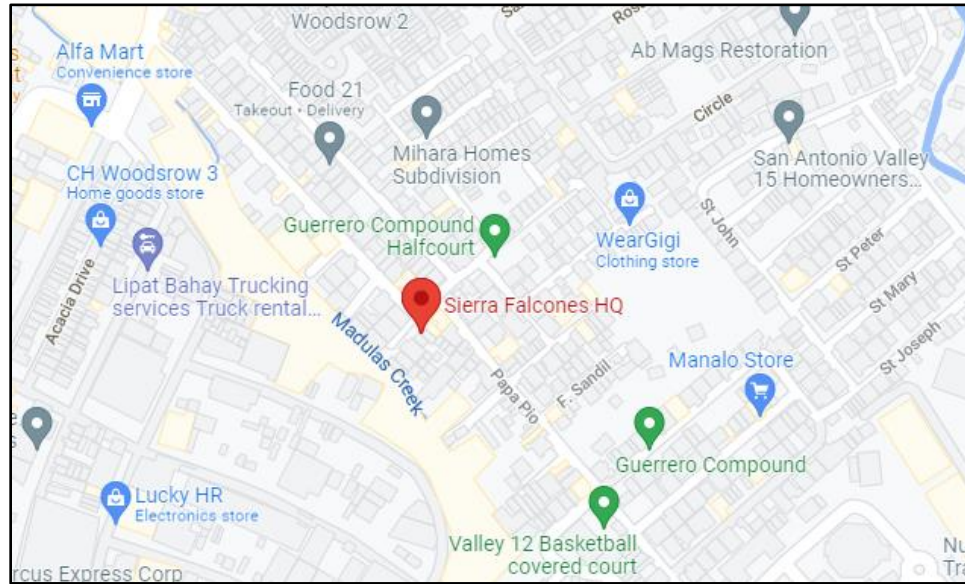
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APPENDIX FIGURES



Appendix Figure 1. Humanitarian Order of Sierra Falconès Incorporated Location Map



Appendix Figure 2. Humanitarian Order of Sierra Falconès Incorporated Libro para sa Sitio Advocacy Program



Appendix Figure 3. Humanitarian Order of Sierra Falconès Incorporated Members



Appendix Figure 4. Humanitarian Order of Sierra Falconès Incorporated Military Partners

APPENDICES

Appendix 1

Interview Sheet

Questions	Answers
1. What are the processes that the organization is doing?	<p>The organization has mainly seven steps in their organizational process. First is to make an advocacy, the advocacies in the organization are created from the ideas of all the members during the quarterly assembly of the organization where all the members were allowed to suggest ideas. With these suggestions, advocacies were created and often projects or programs were created under an advocacy to a specific place by the Program Proponents that were the one assigned to create advocacies. They are also the one who schedules the activity specifically, when and where it will be happening. The Program Proponents will also be recording how much supplies are needed for the project they have made. Then the organization will find a possible supplier or sponsor to find support for the project through sending them invitation letters. The organization will then be verifying the</p>

	<p>supplier or sponsor's response. Next is to identify the kind of donations incoming for the project, it could be from a partner institution, in-kind donations, individual benefactors or from member contribution. After that it will be necessary for the sender of donation the way they want their donation to be transmitted, some senders wanted to deliver donations as supplies and some just send money and order how their money wanted to be spent in, it depends on the sender anyways. The receiver of these donations will then be recording the received supplies or funds. Then the creation of committees that will facilitate the program will be decided by the chairperson and coordinators. The organization will then be open for registration of volunteers in the local level for who want to be a part of the program then they will also have task to do in the program. The donations will be delivered to them and automatically it will all be given to the beneficiaries so the Program Implementers will record all donations as the resources used in the program. Then the program will be facilitated, after the program, the</p>
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	<p>committee will record all what they have done to fulfil their roles and responsibilities, these reports will be passed to the Program Implementers from local level, regional level and to national level to verify if the report is accurate, after that it will be passed to the Program Proponents to check and if accurate, the Program Proponents will send a certificate to the committee through LBC.</p>
<p>2. What are the current system that the organization is using to do these processes?</p>	<p>The organization is currently using manual system accompanied by third party applications such as Facebook to communicate with the partner suppliers or sponsors, members and officials while using Google Drive to store and share important files needed in the organization.</p>
<p>3. What are the problems that the organization encounters during the usage of this systems?</p>	<p>The organization encounters many complications in using third party software such as limited presentation of advocacy, limited connections with possible volunteers, poor resources gathering, poor prioritization of members and using Google Drive is unsafe because everyone can access documents, and it provided poor transparency for the organization.</p>

4. Do the organization want a software as a solution?	Yes, it will be a big opportunity for the organization because non-profit organization like the organization lacks in funds to hire developers to build a system like this to give specific solutions to their problems.
5. Who will be the users of the software systems?	All the members including the regular members, the volunteers, the committee, the program proponent and implementors from national level to local level will be the users of the system.
6. Will a project management system help to address these problems?	Yes, it will be helpful for the organization specifically a management system like this to help address the problems of the organization specially nowadays where people can't meet face to face, an online solution will be accessible to all.

Appendix 2

Technical Feasibility Study

Technical Feasibility Study

Date: April 2021 – January 2022

System: Online Project Management System for Humanitarian Order of Sierra Falconès Incorporated

Authors: Marlon M. Abario

Yrol Fritz B. Matulina

Alicia Jane I. Peji

A. Project Scope

Humanitarian Order of Sierra Falconès Incorporated encountered complications in their organizational process, specifically conducting their projects; as a result, a system was recommended, and the development of an Online Project Management System for Humanitarian Order of Sierra Falconès Incorporated was suggested. The project scope is to consolidate the system required by the organization and to create a platform for successful project or program management in order to enhance productivity via the use of organizational procedures. This includes the creation of an online software application that solves all of the organization's challenges. The development proposed system will start from April 2021 to January 2022.

B. Analysis

Third-party applications such as Facebook and Google Drive are used by the organization to broadcast information, make announcements, assign committees, contact with other members, and store and share files. The goal of this research is to design and

construct a system for the organization to help in meeting its needs and to replace a manual system with an innovative software system.

C. Requirements

To finish this study, the proponents demand requirements to aid in the accurate development of the system using their manual method. The requirements are as follows: a sample of an advocacy presentation, an invitation letter template, a memorandum of agreement template, a supplies and funds inventory form, a sample of a committee list, a sample of tasks assigned to volunteers, a sample of a committee report, a sample of a routing form, and a certificate template.

D. Approach

The concept for developing an Online Project Management System for the Humanitarian Order of Sierra Falconès Incorporated will be based on the Project Scope, Analysis, and Requirements. It's an online project management system that can manage the organization's projects, activities, advocacies, and programs. The tools needed for the development of the project are: a general-purpose scripting language, *PHP: Hypertext Preprocessor (PHP)* will be the dominant programming language to use through the use of *Visual Code Studio* that is a known code editor that has been redesigned and adapted for the development and testing of cloud-based applications. Also using *Visual Code Studio*, the developer will connect the *PHP* program to the *XAMPP Server* to easily install *Apache* distribution that includes *MySQL* that will serve as the query language to query data to the database for the project management system. Also, the use of *MySQL Workbench* is required to complete the creation of the database. And to generate Use Case Diagram, Activity Case Diagram, and Entity Relationship Diagram, the developer used

app.diagrams.net, Justinmind, and Canva. Moreover, hardware devices are required to use in designing, developing, and implementing the project management system. The proponents are using a laptop with the specification of hyperthreaded CPU, Intel Core i3-3217U @ 1.8 GHz with a 4.00 GB installed RAM and a system type of 64-bit Operating System and a computer with 8 gigabytes of Random-Access Memory (RAM), Intel i5 for its Central Processing Unit, a 38 64-bit Operating System running at Windows 10 professional Operating System, NVIDIA GeForce GTX 560 Ti for Graphics Card and 1 Terabyte of Hard Disk Drive (HDD).

E. Evaluation

Humanitarian Order of Sierra Falconès Incorporated encountered complications in their organizational process, specifically in conducting their projects, and the organization uses third-party applications such as Facebook and Google Drive to disseminate information, announcements, assign committees, communicate with other members, and store and share files and encountered complications. With this, the construction of a system centered on project management is recommended. And as for the price, just web hosting costs will be assumed, which will range between 500 and 600 pesos a month. To complete the project, the requirements mentioned are needed and in the month of April 2021 to January 2022 the development of Online Project Management System for Humanitarian Order of Sierra Falconès Incorporated will start.

Appendix 3

System Document Requirements

System Document Requirements

Date: April 2021 – January 2022

System: Online Project Management System for Humanitarian Order of Sierra Falconès
Incorporated

Authors: Marlon M. Abario

Yrol Fritz B. Matulina

Alicia Jane I. Peji

A. Purpose

The Online Project Management System for Humanitarian Order of Sierra Falconès is a study that is focused on producing a project management system for the organization. The study breaks the proposed system into seven modules, the advocacy, invitation, resources, members, report, monitoring and settings module that was also under the organizational process.

B. User Requirements

To complete this study: Online Project Management System for Humanitarian Order of Sierra Falconès, the proponents demand requirements that will help in the proper creation of the system utilizing their manual approach. A sample of an advocacy presentation, an invitation letter template, a memorandum of agreement template, a supplies and funds inventory form, a sample of a committee list, a sample of tasks assigned to volunteers, a sample of a committee report, a sample of a routing form, and a certificate template are all required.

C. Cost

Web hosting is required for the online project management system on the web browser, and web hosting expenses will be incurred, which will vary between 500 and 600 pesos each month.

D. Benefits

Through the construction of the proposed system, the research contributes significantly to the organization's advancement on its organizational processes. The suggested system would be utilized to consolidate the organization's organizational process for managing programs or projects. Furthermore, when the suggested system is built, the organization's development of advocacies and projects, resource management and allocation, project scheduling, assignment and monitoring, documentation, decision making, and control of the modifications required would improve.

E. Alternative Development Strategies

Strategy 1: Develop the proposed system using PHP.

Strategy 2: Develop the proposed system using HTML5 and CSS.

Strategy 3: Develop the proposed system using Java.

Appendix 4

System Design Specification

System Design Specification

Date: April 2021 – January 2022

System: Online Project Management System for Humanitarian Order of Sierra Falconès
Incorporated

Authors: Marlon M. Abario

Yrol Fritz B. Matulina

Alicia Jane I. Peji

A. Purpose

The Online Project Management System for Humanitarian Order of Sierra Falconès is a study that is focused on producing a project management system for the organization. The study breaks the proposed system into seven modules, the advocacy, invitation, resources, members, report, monitoring and settings module that was also under the organizational process.

B. Design Goals

The proposed system has its design goal that depends on the need of the organization. The design of the proposed system is a project management system that has different modules that can be accessed by all the members in the organization in all levels however the system is designed for mainly two different user types, each user type will be having a different environment specifically:

Program Proponent and Implementor Interface. This is the interface is visible for the program proponent and implementer from the national level, regional level, and

local level. The interface has the control to verify the suggestions of advocacies by the members, program proponents can create projects, schedule it, send letter of invitation to suppliers and sponsors, verify their replies, give memorandum of agreement, identify kind of donations, its mode of transmission, report received donations, assign committee, accept registrations, give tasks, document resources transactions, verify committee's reports, send copy of certificates, edit profile, and modify system's label and images and save these modifications.

Member Interface. This is the interface that the users with members, volunteers or committee as their user types can access. This interface has the control where users is capable of registration as a volunteer or member, creating suggestions of advocacies or projects, create report as a committee, receive certificate, edit profile details, and save modifications

C. Cost

Web hosting is required for the online project management system on the web browser, and web hosting expenses will be incurred, which will vary between 500 and 600 pesos each month.

Appendix 5

Unit Testing



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ONLINE PROJECT MANAGEMENT SYSTEM FOR HUMANITARIAN ORDER OF SIERRA FALCONÈS INCORPORATED

CRITERION	DESCRIPTION	TESTING	REMARK
Modules	Advocacy Module The advocacy module lets user to create advocacy or projects and schedule the project.	First Test The proponents will run the system and check if the members can submit suggestions, can the program proponents view it and verify it. And if in the projects can be scheduled.	
	Invitation Module The invitation module let users to create letter of invitation to supplier or sponsor, validate the reply and create memorandum of agreement	First Test The proponents will run the system and check if the system does create accurate invitation letter, save the reply of the supplier or sponsor, and if memorandum of agreement can be saved.	

	<p>Resources Module</p> <p>The resources module let the users identify the kind of donation and its mode of transmission</p>	<p>First Test</p> <p>To test this module, the proponents will run the system and check if the system does save all the resources kinds and mode of transmission.</p>	
	<p>Member Module</p> <p>The member module let the user assign committees, request and confirm registration, and to disseminate tasks</p>	<p>First Test</p> <p>The proponents will run the system and check if the system can update members assigned committee and tasks to other members. Also, if the users can register and accept or decline membership.</p>	
	<p>Monitoring Module</p> <p>The monitoring module let the members update on the advocacy events.</p>	<p>First Test</p> <p>The proponents will run the system and check if the system reflects the verification of one user to another.</p>	
	<p>Report Module</p> <p>The report module provides the report of received resources, assigned and used resources, Project Committee's report, and issue certificates.</p>	<p>First Test</p> <p>The proponents will run the system and check if the resources documented can be saved and update on the other user's page.</p>	

	Settings Module The settings module lets the users modify the system's details.	First Test The proponents will run the system and check if the system saves the modification of organizational information.	
Security	User Access	First Test The proponents will run and check if system is true to different types of user access as well as if it does not allow non-users to access the system.	
	Database	First Test The proponent will run the system and check if there is no missing data, unwanted data included or misplaced data in each module. Also, it should be checked if the database could be backed up.	
Platform	Google Chrome	First Test To test, the proponent will run the system and check if the system is adaptive and responsive in Google Chrome. The proponents will also check for every module whether it is working in Google Chrome or not.	

Platform	Microsoft Edge	First Test The proponent will run the system and check if the system is adaptive and responsive in Microsoft Edge. The proponents will also check for every module whether it is working in Microsoft Edge or not.	
	Mozilla Firefox	First Test The proponents will run the system and check if the system is adaptive and responsive in Mozilla Firefox. The proponents will also check for every module whether it is working in Mozilla Firefox or not.	

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Proponents

Appendix 6

System Testing



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Dear Participant,

Good day! We are currently conducting research entitled “**ONLINE PROJECT MANAGEMENT SYSTEM FOR HUMANITARIAN ORDER OF SIERRA FALCONES INCORPORATED**”. In line with this, we are respectfully seeking for the assistance to fill out this evaluation form. It will not be a problem if you wish not to participate but the responses will highly be valued. The evaluation form can be completed anonymously. Responses from completed questionnaires will be collated for analysis; once this is complete, the original questionnaires will be kept electronically. Rest assured that all information indicated therein will be treated with utmost confidentiality under the Data Privacy Law of 2012 and strictly be used for the above purpose only. All the gathered information/data will also be retained to the system and will be used as a part of the historical data for further analysis. If you wish to learn more about the results of the research, please send an email to aliciajane.peji@cvsu.edu.ph.

We are hoping for the kind consideration and support. Thank you very much.

A. ORGANIZATION ADVOCATES

NAME: _____ DATE: _____
ROLE: _____ SEX: _____
YEARS OF SERVICE: _____ SIGNATURE: _____

B. IT PROFESSIONALS

NAME: _____ DATE: _____
SPECIALIZATION: _____ SEX: _____
COMPANY: _____ POSITION: _____
YEARS OF SERVICE: _____ SIGNATURE: _____

Rate the following statement. Check (✓) the number that corresponds to the degree of the answer. Please be guided with the following scales:

LEGEND: 1 – Poor 2 – Fair 3 – Satisfactory 4 – Very Satisfactory 5 – Outstanding

INDICATOR	RATING				
	1	2	3	4	5
Functional Suitability					
1. The system includes the following modules:					
a. Advocacy module,					

b. Invitation module, c. Resources module, d. Member module, e. Monitoring module f. Report module, and g. Setting module.					
2. The system can be used to: a. Create advocacy or projects and schedule the project, b. Create letter of invitation to supplier or sponsor, validate the reply and create memorandum of agreement, c. Identify the kind of donation and its mode of transmission, d. Assign committees, request and confirm registration, and to disseminate tasks, e. Validate and update the organizational reports. f. Generate printable reports of the organization process. g. Modify system's details.					
3. The system can generate: a. Letter of Invitation, b. Memorandum of Agreement, c. List of received resources, d. List of assigned resources, e. List of used resources, f. Project Committee's report, and g. Softcopy of certificate.					
4. The functions of the system correspond to its previously set objectives.					
Performance Efficiency					
5. The system provides minimum of 1.5 seconds response time when performing various task such as: a. loading of files, b. uploading files, and c. downloading files.					
6. The system has 100% of performance when 5 or more users are accessing the system.					
7. The system can handle more than 5 data/information.					
Compatibility					
8. The system can perform its required functions efficiently while sharing a common environment and resources with other products, without detrimental impact.					
9. The system can import data.					
10. The system can save data.					
Usability					
11. The system used consistent terms.					
12. The system has a consistent layout or user interface.					

13. The system has a consistent position on screen for error messaging.					
14. The system used unambiguous title for function buttons.					
15. The command buttons were easy to remember.					
16. The system uses helpful messages on screen.					
17. The system was easy to operate based on the transaction procedure.					
18. The required information is easy to locate.					
19. The system responds to invalid input.					
20. The interface looks good.					
21. The system's accessibility varies on user's designation.					
Reliability					
22. Account's username and password are encrypted when it was saved in the database.					
23. The system is accessible to all its users.					
24. The system is capable in handling errors.					
Security					
25. The data inside the system can only be viewed by the system's administrator.					
26. The system provides identification and authentication of system users through the use of username and password.					
27. The system assigns unique identification for each user for monitoring of unwanted user behavior.					
28. The system allows the user to update the information of their account.					
Maintainability					
29. The system applies changes to the entire system using its content management feature.					
30. The data or information in the module can be reused by another module.					
31. The system can be easily tested.					
Portability					
32. The system can be moved to different environments such as: a. Google chrome, b. Mozilla firefox, and c. Microsoft edge.					
33. The system can be installed easily; and					
34. The system can easily replace other software.					

Adapted from International Organization for Standardization (ISO) 25010 Product Quality

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Appendix 7

Acceptance Testing



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Dear Participant,

Good day! We are currently conducting the research entitled “**ONLINE PROJECT MANAGEMENT SYSTEM FOR HUMANITARIAN ORDER OF SIERRA FALCONES INCORPORATED**”. In line with this, we are respectfully seeking for the assistance to fill out this evaluation form. It will not be a problem if you wish not to participate but the responses will highly be valued. The evaluation form can be completed anonymously. Responses from completed questionnaires will be collated for analysis; once this is complete, the original questionnaires will be kept electronically. Rest assured that all information indicated therein will be treated with utmost confidentiality under the Data Privacy Law of 2012 and strictly be used for the above purpose only. All the gathered information/data will also be retained to the system and will be used as a part of the historical data for further analysis. If you wish to learn more about the results of the research, please send an email to **aliciajane.peji@cvsu.edu.ph**.

We are hoping for the kind consideration and support. Thank you very much.

NAME: _____ DATE: _____
ROLE: _____ SEX: _____
YEAR/S OF SERVICE: _____ SIGNATURE: _____

Rate the following statement. Check (✓) the number that corresponds to the degree of the answer. Please be guided with the following scales:

LEGEND: 1 – Poor 2 – Fair 3 – Satisfactory 4 – Very Satisfactory 5 – Outstanding

INDICATOR	RATING				
	1	2	3	4	5
Effectiveness					
1. The system includes the following modules: a. Advocacy module, b. Invitation module, c. Resources module, d. Member module, e. Monitoring module f. Report module, and g. Settings module.					
2. The system can be used to: a. Create advocacy or projects and schedule the project,					

<ul style="list-style-type: none"> b. Create letter of invitation to supplier or sponsor, validate the reply and create memorandum of agreement, c. Identify the kind of donation and its mode of transmission, d. Assign committees, request and confirm registration, and to disseminate tasks, e. Validate and update the organizational reports. f. Generate printable reports of the organization process. g. Modify system's details. 					
2. The system can generate: <ul style="list-style-type: none"> a. Letter of Invitation, b. Memorandum of Agreement, c. List of received resources, d. List of assigned resources, e. List of used resources, f. Project Committee's report, and g. Softcopy of certificate. 					
3. The functions of the system correspond to its previously set objectives.					
Efficiency					
4. The system provides minimum of minimum of 1.5 seconds when performing various task such as: <ul style="list-style-type: none"> d. loading of files, e. uploading files, and f. downloading files. 					
5. The system has a 100% performance when 5 or more users are accessing the system.					
6. The system can handle more than 5 data/ information.					
Satisfaction					
7. The system achieves its realistic goals, including the results of use and the consequences of use.					
8. The system works well based on its modules.					
9. The user feels satisfied when he/she finished his/her task through the use of the developed system.					
10. The user feels satisfied on the totality of the developed system.					
Freedom from Risk					
11. The system promotes and build good reputation to the client based on the information provided by the system.					
12. The system promotes data privacy by adopting user's level of accessibility.					
13. The system promotes the client's function based on its intended context of use.					
Context Coverage					
14. The system can be used with effectiveness, efficiency, freedom from risk and satisfaction in all the specified contexts of use.					

15. The system can be used with effectiveness, efficiency, freedom from risk and satisfaction in contexts beyond those initially specified in the requirements.					
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Adapted from International Organization for Standardization (ISO) 25010 Quality in Use

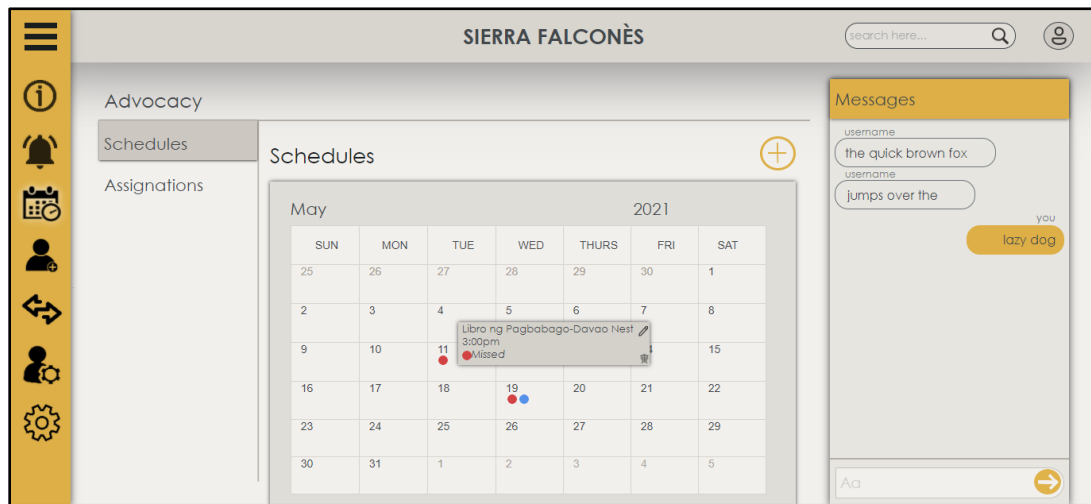
Prepared by:

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 Proponents

Appendix 8

System Wireframes

Advocacy Module



Invitation Module

The screenshot displays the 'SIERRA FALCONÈS' web application interface. A central modal window titled 'Invite' is open, featuring a yellow header and a white body. The modal contains the following fields: 'Advocacy' (text input with 'Aa'), 'Supplies' (text input with 'Aa'), 'Partner' (dropdown menu with 'Select partner'), 'Invitation Letter' (text input with a 'Browse...' button), 'Sent by' (text input with 'Name'), 'Email' (text input), and 'Status' (dropdown menu with 'To deliver'). A 'Save' button is located at the bottom right of the modal. The background shows a sidebar with icons for Reports, Supplies, Funds, Progress Reports, and a Messages section on the right with a search bar and a list of messages.

Resources Module

The screenshot displays the 'SIERRA FALCONÈS' web application interface. A central modal window titled 'Resources' is open, featuring a yellow header and a white body. The modal contains the following fields: 'Advocacy' (dropdown menu with 'Select advocacy'), 'From' (text input with 'Aa'), 'Kind' (dropdown menu with 'Select donation kind'), and 'Proof of Transaction' (text input with a 'Browse...' button). A 'Save' button is located at the bottom right of the modal. The background shows a sidebar with icons for Reports, Supplies, Funds, Progress Reports, and a Messages section on the right with a search bar and a list of messages.

Member Module

The screenshot shows a 'Join Us' registration form overlay on the Sierra Falcones website. The form is titled 'Join Us' and has a close button (X) in the top right corner. It contains the following fields and options:

- Join as: Member (dropdown menu)
- Surname, Name, M.I. (text input fields)
- Gender: ☐ Male ☐ Female ☐ Others
- Age: Phone No.:
- Address (text input field)
- Your advocacy (text input field)
- Email (text input field)
- Password (text input field)
- REGISTER (button)

The background of the website shows the Sierra Falcones logo (an owl) and the text 'SIERRA FALCONES'. There are also images of children and a search bar in the top right corner.

The screenshot shows the Sierra Falcones monitoring dashboard. The dashboard has a header with the Sierra Falcones logo and a search bar. On the left side, there is a vertical menu with icons for Monitoring, Schedules, Assignations, Progress Reports, and Settings. The main content area is divided into three columns: Advocacy, Schedule, and Assigned Nest. The Assigned Nest column has a plus sign icon and a trash icon. The Messages panel on the right shows a list of messages with usernames and content.

Advocacy	Schedule	Assigned Nest
LIBRO para sa SITIO	05/18/2021 - Tuesday	Davao Nest

Messages

- username: the quick brown fox
- username: jumps over the
- you: lazy dog

At the bottom of the Messages panel, there is a text input field with 'Aa' and a send button (arrow icon).

Report Module

The screenshot shows the 'SIERRA FALCONÉS' Reports module. A sidebar on the left contains icons for menu, info, notifications, calendar, user, share, settings, and a gear icon. The main area has a 'Reports' header with a 'Sort: Delivered' dropdown. Below this is a table with columns: Advocacy, Supplies, Partner, POT, Personel, Nest, and Status. The table contains one row of data. To the left of the table, there are summary statistics for 'Funds'.

	Advocacy	Supplies	Partner	POT	Personel	Nest	Status
LIBRO para sa SITIO	23000 books	Salinlahi Inc.	proof.pdf	Recived Neil Villanueva	Davao Nest	To deliver	

Summary statistics for Funds:

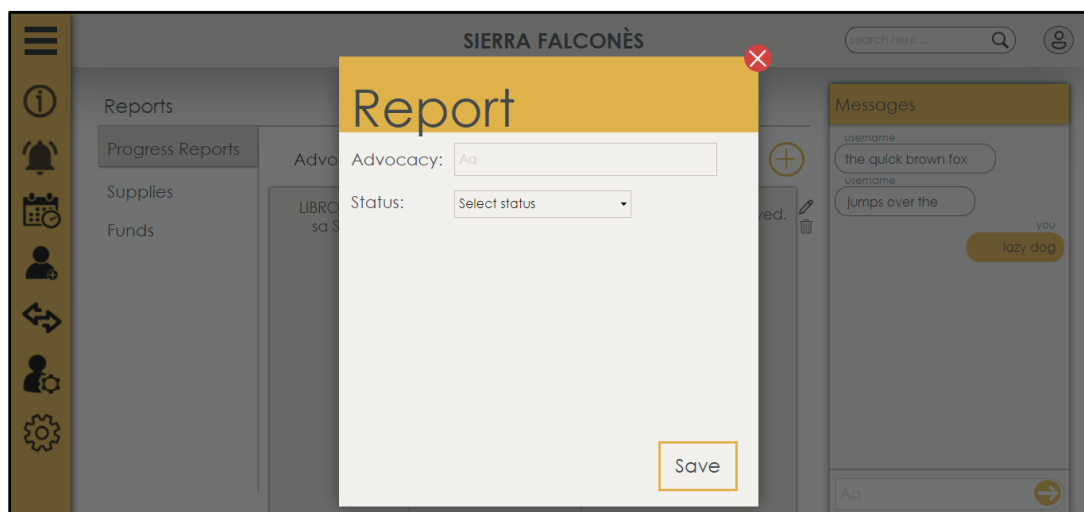
- TOTAL Advocacies: 1
- TOTAL Supplies: 23000
- Total Delivered: 1

The screenshot shows the 'SIERRA FALCONÉS' Reports module with a 'Report' modal form open. The modal has a yellow header with the title 'Report' and a close button. It contains several input fields and a 'Save' button. The background shows the same table as the previous screenshot, but it is dimmed.

Report Form Fields:

- Advocacy:
- Supplies:
- Partner:
- Proof of Transaction:
- Recieved by:
- Managed by:
- Status:
-

Monitoring Module



Settings Module

