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GO-YDD ORMIN: Youth Management System

A Capstone Project

Presented to the Faculty of the
Polytechnic University of the Philippines

Bansud, Branch

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Chapter 1

THE PROBLEM AND ITS BACKGROUND

Introduction

Today, trend in technology has risen in the field of developments by means of using new methods, tools, and systems that streamline efficiency. Technology allows community leaders to assess and collaborate with youth in a rapidly changing environment. It becomes increasingly important in helping to organize, store, and access large amounts of information. Youth profiling aims to gather information and data of the youth members in a certain area. This allows development of plans, programs, and policies intended for the youth. Moreover, youth organization is a group that mainly focuses on the needs, interests, and development of young people. Enhancing these areas will help government institutions to create essential plans and programs for youth centers, education, and facilities.

Lack of youth profiling may lead to a gap between government institutions and youth, which can result in policies that are inadequate. It is perceived as difficulty in offering programs and assistance that are appropriately designed for the needs facing the youth population. This could lead to the inefficient or ineffective use of funds, resulting in initiatives and programs that fail to address the underlying causes of problems among youth. Same as challenges in registration of youth organization, as being recognized and provided by support from government institutions.

Office of the Governor - Youth Development Division (GO-YDD) Oriental Mindoro administers city and municipality youth development officers and Sangguniang Kabataan (SK) Federation Presidents planning and policy updates. In line with Republic Act No. 10742, known as the Sangguniang Kabataan (SK) Reform Act of 2015, youth

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involvement in local government and community development is facilitated by the (SK) Sangguniang Kabataan. It identifies all youth ages fifteen (15) to thirty (30), whose primary details serve as the basis for crafting relevant programs and policies. Currently, GO-YDD does not have any records of individual youth profiles in different municipalities in Oriental Mindoro. Without youth profiling, GO-YDD lacks the information required to track development and assess the effectiveness of programs. As a result, it is challenging for them to create policies and programs that youth need.

In relation to this, a capstone project titled “GO-YDD ORMIN: Youth Management System” is considered by the proponents to benefit youth individual and youth organizations in different municipalities in Oriental Mindoro in terms of registering their profiles and organization. Through the use of this system, it could help in monitoring, viewing and generation of reports, delivering increased precision, effectiveness, data-driven decision-making capabilities and supports a more all-encompassing method of handling issues with youth development. It is crucial to approach profiling ethically and responsibly to avoid discrimination and unjust treatment of individuals based on stereotypes or biases. Balancing the benefits of profiling with the protection of individual rights and privacy is essential for its effective and ethical implementation. By using this system, it will lessen the traditional process used by GO-YDD and increase collaborative effort between different institution that helps in youth development.

Project Context

The GO-YDD ORMIN: Youth Management System aims to develop a system that monitors youth profiling in different municipalities of Oriental Mindoro. Moreover, this system will also include registration of youth organization in different municipalities of Oriental Mindoro.

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The system starts with the registration of an account. There are three users for this system: Super Admin, Municipal Admin, and Youth. The user needs to enter their email and password. Once logged in, the user will then proceed to the dashboard based on his/her role. Super admin can view registered profiles, view pending, approved, and expired organization lists, view events, view reports submitted by different youth organizations, can add account for municipal admin and lastly, can add provincial-based youth organizations. On the other hand, municipal admin can view registered profiles, add municipal youth organizations, and lastly, add upcoming events, accomplishment reports and monitoring reports. Meanwhile, youth can view events and announcements, and register for youth profiling.

The main feature of GO-YDD ORMIN: Youth Management System is to provide admin panel that can view and monitor registered profile and registered youth organizations and create events that will cater the needs of the youth in different municipalities. This system was created by the proponents to help Office of the Governor - Youth Development Division (GO-YDD) to have an online youth profiling system and registration of youth organization in different municipalities in Oriental Mindoro.

Purpose and Description

The purpose of the system is to help the Office of the Governor- Youth Development Division (GO-YDD) have a system that will help in youth profiling and registration of youth organizations in different municipalities of Oriental Mindoro. The proposed system can speed up the work efficiently by using it. The advantage of using the system is that it has a process that will streamline youth profiling and registration for youth organizations. Thus, the Office of the Governor- Youth Development Division (GO-YDD) can create programs and projects aligned to the needs of the youth.

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Office of the Governor - Youth Development Division (GO-YDD) Super Admin has access to view youth profiles and view registered youth organizations, events, and reports submitted by the admins from different municipalities in Oriental Mindoro. This system will help GO-YDD and municipalities in Oriental Mindoro create plans, programs, and policies that will benefit the youth.

This is a web-based system that will help GO-YDD to have a system that will help in youth profiling and registration of youth organizations. There are three (3) users of this system. First is the super admin, who can view registered profiles of youth and youth organizations, events, and reports, can add another user or admin to this system and add provincial-based youth organization. The second user is the municipal admin, which can add events, monitoring and accomplishment reports, add municipal-based youth organization and view youth organization lists and reports. The third user is the youth, who can register for youth profiling and view updates and upcoming events.

Objectives

The general objective of this project is to develop a system for the Office of the Governor - Youth Development Division (GO-YDD) which can help streamline youth profiling in different municipalities of Oriental Mindoro and create a system that can accommodate the registration of municipal and provincial youth organizations.

The following are the specific objectives that the system must accomplish:

1. Provide feature that monitors, maintains, and views the youth profiles in different municipalities in Oriental Mindoro;

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2. Provide a feature for the super admin to register provincial-based youth organizations;
3. Allows super admin to view the pending, approved, expired organization lists, accomplishment reports and monitoring reports;
4. Allow super admin to add account for admin in each municipality;
5. Provide a feature for the admin to register municipal-based youth organizations;
6. Allows admin to add events, accomplishment reports and monitoring reports that are aligned with the needs of the youth;
7. Provide a feature for the youth to register for youth profiling;
8. Allows youth to view announcements and events;
9. Generate accomplishment and monitoring reports of admin that can be easily exported in Word formats; and
10. Evaluate the profiling system if it complies with ISO/IEC 25010 software quality standard, which include: Functionality, Efficiency, Usability, Security, Portability and Maintainability.

Scope and Limitations of the Study

This project is intended for the Office of the Governor- Youth Development Division, in the Province of Oriental Mindoro. Its primary function is youth profiling and registration of youth organizations in different municipalities of Oriental Mindoro. The

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system can view registered lists of youth and youth organizations, add events, and generate accomplishment and monitoring reports. The project will cover the following main function: (a) Youth Profiling. The system can view and record youth profiles. (b) Generation of reports. The system can generate accomplishment and monitoring reports submitted by the admins from different municipalities in Oriental Mindoro. (c) Approve Youth Organization Request. The Municipal Admin can approve/disapprove youth organizations; it can also view and record lists of existing youth organizations. (d) Add User. Super Admin can add admin for each municipality. Super Admin can also create and set up accounts for municipal admins.

However, it is important that the system may have some limitations. The system is limited to youth profiling and registration of youth organizations in the province of Oriental Mindoro. Moreover, the system may not replace the need for physical records entirely and may still require occasional manual data entry and management. In addition, since the system is web-based, it will only be accessible through the use of the internet.

Significance of the Study

The outcome of the study will be beneficial to the following:

GO-YDD Office. The system will help the GO-YDD Office create a system that can be used for youth profiling and monitoring and viewing lists of registered youth organizations.

Youth. The system will be a platform for individual youth to easily view upcoming events created by the organization. It will also be easier for youth individuals to register for profiling.



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Youth Organization. The system provides an easier process of registration for youth organizations. They can register through the system and submit reports such as accomplishment and monitoring reports.

Local Youth Development Office. The system will help the local youth development office to create plans and programs for their youth population. Moreover, the system will help in providing updates and disseminating upcoming plans and events for the youth.

Proponents. This system enables the proponents to gain practical experience in designing, implementing, and optimizing software for real-world applications.

Future Proponents. This proposed system will be a great help to them as a basis or reference if they wish to continue this study, and future proponents will gain more knowledge and enhance their skills in terms of system development and programming.

Definition of Terms

The following term used by the proponents is operationally defined for understanding the project.

Dashboard. This refers to an interface through which users can access and view their data. This also refers to the page where users can get an overview of the data in the system.

Email Registration. This refers to collecting email addresses from young individuals as part of a process to create profiles or gather information.

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GO-YDD. This is an acronym for the Office of the Governor- Youth Development Division (GO-YDD) which is a governmental or organizational body at the provincial level that is responsible for the development of profiles of youth in the province, aiming to inform programs, services, and interventions tailored to the youth populations.

Municipal Admin. Person who is in charge of managing the system. This refers to the person who can approve or decline youth organizations, add events, and generate reports in their respective municipality.

Profiling. This refers to the systematic collection and analysis of data related to young individuals to understand their characteristics, behaviors, preferences, and interests. This also refers to recording information about youth individuals that can be view and monitored in the system.

Record Management. This refers to collecting, storing, and managing various types of records, such as demographic information, behavioral patterns, preferences, and interactions with services or programs.

Security. This term was used in our project to protect youth's records from unauthorized individuals viewing, modifying, or stealing youth information.

Super Admin. This refers to the person who has the highest authority in the system. Super admin can add, edit, and delete users (municipal admin).

XAMPP. Is a popular free database system used for administration and querying. It is also one of the tools used by the proponents for the database management of the system.

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Youth. Refers to the period between childhood and adulthood. Youth also refers to someone who's between 15 and 30 years old.



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Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents the review of related literature and studies. It shows the similarities, differences, as well as the synthesis of the study to compare the different studies conducted and literature that help the proponents broaden their knowledge and achieve their goals respectively.

Related Literature

According to the study of Ahmad Z. et al., (2017), youth are assumed to be the part of the most key resource for a country. Therefore, the researcher has chosen to study the profile of youth leaders in Malaysia Youth Council. The instrument used for this study is done through the quantitative findings by using questionnaires that have been distributed around to the youth association throughout Malaysia under Malaysia Youth Association. The samples in this research are done based on random stratification. The data of the study had been analyzed by using the description statistics of three chosen elements from the research questionnaires which are the leaders' ethnicity, highest academic qualification and the residents of the leaders.

This study is related to the system because profiling in youth leaders were gathered and conducted, thus the system will also utilize youth profiling that will help the GO-YDD by understanding their youth profiles can provide insights into engagement and leadership engagement. Overall, the profiles provided will provide comprehensive perception about the new generation of youth and align projects, programs and policies.

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In connection, according to M. Faraji, M. R. Najafzadeh (2016) there was a significant and positive relationship between management information systems and the decision-making in managing youth individuals. The research method was descriptive and correlation type. The population was all the staff of the organization, which consisted of 174 individuals. Due to the limited sample size, the whole population was selected as sample. Finally, 161 questionnaires were analyzed. Pearson correlation was applied to analyze the data.

In relation to the system, it can also facilitate faster processes for youth individuals for youth profiling, making it easier for them to provide necessary information and access information provided by the GO-YDD. Automation and digitization can reduce administrative burdens, enhance transparency, and improve accessibility for both youth and youth organizations.

In the study of, McElravy L. et al., (2014), they discussed the transfer of leadership to younger generations. Profile could help in planning for and developing the next generation of community leaders. In this study, we explored the relationship between traits, including the Big-Five model of personality and emotional intelligence, and self-perceived leadership skills in youth participating in summer leadership conferences. Emotional intelligence and age predicted the youths' self-perceived leadership skills. The potential need for youth leadership development programming to include, and perhaps even focus on, emotional intelligence is outlined.

Similarly, GO-YDD ORMIN: Youth Management System also shares insights regarding better planning and developing plans and projects for the youth. Profiling youth based on traits related to leadership skills allows organizations to identify areas for improvement and development. GO-YDD can target training and support and provide to

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address these gaps between youth and institutions. This proactive approach ensures that youth leaders receive the necessary resources and guidance to thrive in their roles and contribute effectively in the youth development in the province of Oriental Mindoro.

Related Studies

According to Faye Balanon et al., (2017), there is an emerging movement worldwide to give the youth a direct role in shaping policies and programs. The Philippines has institutionalized the Sangguniang Kabataan (SK), a youth governance mechanism created by law, with its own budget and a national agency as secretariat. Researchers used an extensive nationwide survey as primary tool, and validated findings through a study of related literature, key informant interviews, and focus group discussions where the youth actively participated. The study also discovered notable strengths of the SK, including its tremendous potential to develop the next generation of leaders, engage the youth in the community and teach them accountability, honesty and creativity. These findings led to the conclusion that the potentials of the SK are not being maximized, resulting in projects that are largely limited to sports, infrastructure development and environmental protection.

This is related to the proponent's system as establishment of the SK provides a platform for youth to actively participate in governance and decision-making processes. This demonstrates importance of youth involvement in the communities. Youth related programs will be prioritized by the GO-YDD movement to involve youth directly in shaping policies and programs by the use of their profiles and youth organization.

Moreover, according to Liao et al., (2017), A student profiling system will have a big impact to the students, parents, and teachers because they can easily monitor the

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performance of their students or children. Also, it could be the medium for connecting teachers to parents. A ideally, educational institutions are under constant pressure to demonstrate the same willingness and ability to incorporate the latest developments in student Profiling systems with communication technologies supports the diversity of teaching method.

This is related to our study because the integration of profiling will help fostering collaboration between youth and institutions, accommodating learning needs, and promoting accountability and empowerment. By leveraging the latest developments in communication technologies and using methodologies, educational institutions can maximize the benefits of youth profiling systems to meet the unique needs.

Liao et al., (2017) in their study also supported the idea of the importance of profiling, as he indicates that Student Profiling System process within technological sophistication creates an accurate partial knowledge, such as a Student Profiling System that can appeal to students and academic teachers. as parents. Therefore, the belief that technology is the bulk repository of information that underpins major business and social concerns and the communication medium through the Student Profiling System interacts with one another.

In relation to GO-YDD ORMIN youth management system, incorporating technology into process will appeal more to the youth. This serves as the communication medium through online profiling and youth organization registration. The system facilitates seamless communication and collaboration among all parties involved. This promotes transparency, accountability, and active engagement.

According to Blakeslee, J. (2018) Despite current prioritization of the inclusion of young people's voices in the design and delivery of services for youth and young adults, few up-to-date tools or frameworks have emerged to assist service-providing programs,

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agencies, or systems in evaluating their efforts. Further, though stakeholders may be on board with the general purpose and principles for including youth and young adult voice in organizations and systems, they may lack awareness of the policies and practices that need to be developed to ensure the consistent and meaningful engagement of youth as participants in decision-making processes.

This is related to the system because youth participation plays a vital role in developing programs and policies aligned to their needs. The development of these programs is important for youth development. Moreover, engagement and provision of information will make easier for both youth and GO-YDD.

Synthesis of Related Literature

This review of related literature and studies provides examples cited in this chapter tackles youth development, emphasizing the interconnections of digital engagement, leadership, community empowerment, sociocultural influences, and the importance in transferring leadership roles to younger generations, especially in fields like agriculture and community development. This aligns with GO-YDD ORMIN: Youth Management System focus on developing a youth profiling management system to identify and nurture young leaders within communities. The literature and studies show the significance of skills development, supportive environments, and commitment to action in shaping young leaders.

The GO-YDD ORMIN: Youth Management System can integrate these aspects into its framework to ensure effective youth leadership development. The discussion on the potential of technology, such as digital profiling systems, to empower and engage young individuals. Implementing profiling systems can streamline monitoring processes and reduce manual workload, which resonates with the goals of proponent's project.

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Also, ethical considerations, such as privacy concerns and potential discrimination need to be addressed when implementing profiling systems, especially in the context of youth and child-care policies. Proponents should take into account these ethical considerations to ensure the system respects the rights and interests of young individuals. However, the literature and studies provide valuable insights that can inform the development and implementation of the GO-YDD ORMIN: Youth Management System emphasizing the importance of youth leadership, skills development, technological integration, and ethical consideration. The similarities between the proposed system and the previous research are the system seeks to equip youth with the resources and abilities needed for success. In this case, both systems aim to develop a crucial factor to fulfill the needs of society. Both prioritize using technology effectively and improving system security.



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Chapter 3

TECHNICAL BACKGROUND

System design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. This chapter discusses the research method used, software development methodology, different requirement analysis tools, and systems requirements of the software product.

Methodology

The proponents will utilize Scrum Methodology, a framework of Agile Methodology. This methodology involves providing solution for complex problems. Each member has a specific task based on their skill set and reviews each members performance for the next development phase of the project. Moreover, this methodology breaks the process into smaller phases and allows collaboration from the scrum team together with the project owner to finish the project.

According to Hayat et.al., (2019), agile methodology is the iterative way of for developing software projects for frequent changes, fast delivery and reduces risk. It involves four processes. The first phase is the Sprint planning. This phase is based on the product backlog where the scrum team discussed the system flow and assigned the task for every member of the team. Next phase is the Sprint, which refers to all events and development of the project. In this phase, the whole team will gather and discuss the progress and other matter in regarding to the project development. Thirdly, in the Sprint review, the system will be presented to the project stakeholders, to check if they needed a modification or not, and if there were feedback which can be added to the increments and backlog. And the fourth phase is the Sprint Retrospective. In this phase, reflections will be given by each member of the scrum team for what they have

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encountered such as issues and discoveries, to discuss what solution can be made to solve issues and how this discovery can be implemented to the future sprint. And then proceed to again to planning for the next sprint.

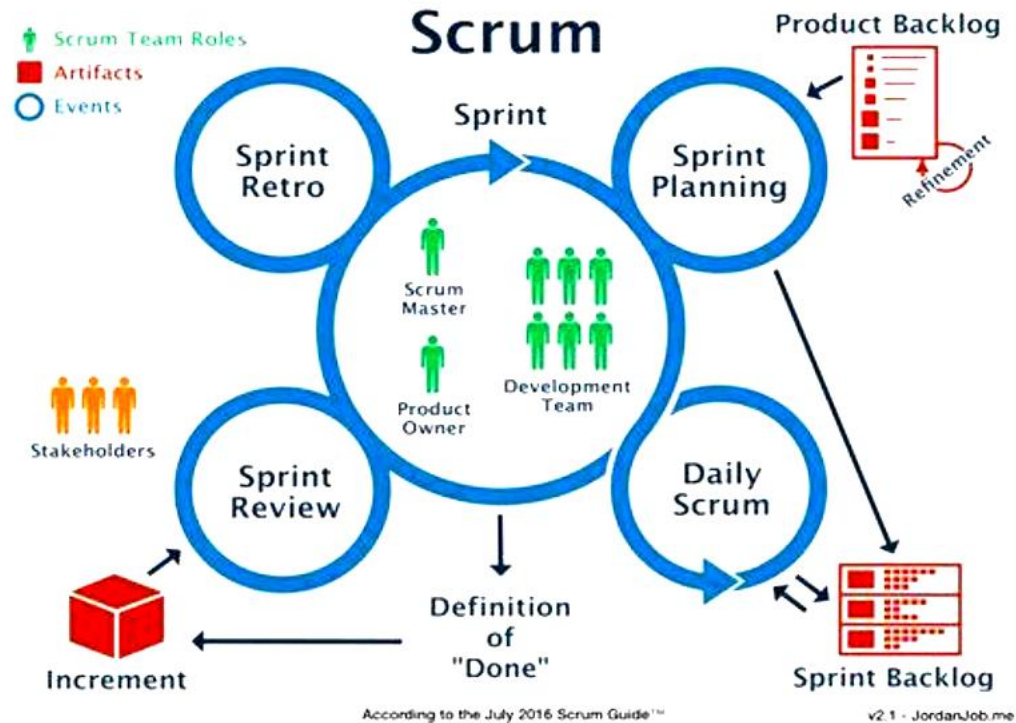


Figure 1. Scrum Model

Scrum Event.

Sprint Planning. In this phase, the proponents conducted an interview to the Office of the Governor-Youth Development Division to gather information such as project requirements and functionality of the system they want to achieve to enhance on their existing system. The information gathered will be use as a guide in the actual sprint.

Sprint. This is the actual development of the system. Each member has their assigned tasked. The Technical Writer makes documentation and manual of the system. System analyst makes flowchart and diagrams that has the flow of the system. Programmers makes the code of the system based on the flowchart and diagram made

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by the system analyst. There will be daily scrum meeting that discusses the progress of the system facilitated by the project manager.

Sprint Review. In this phase, the proponents will run a test on the system and also, checks if the projects meet the user's expectation, check for any errors in the system, and for missing components and functions which were listed in the past phases.

Sprint Retrospective. The proponents will perform a meeting with all of the scrum members to discuss and reviews the sprint. The team makes a new list of priorities and updates for the next sprint and what they need to do in order to increase efficiency.

Scrum Artifacts. This is the key information needed during the development of the project. These are the information given by the project owner and will be used as a guide by the scrum team.

Product Vision. It deals with the long-term direction of the project management. Each member of the team has its own task such as project manager, programmer, system analyst and technical writer to do they work together to achieve the project goal.

Product Backlog. It is the list of all predetermined project requirements given by the product owner which is the admin of the system together with its staff; it is arranged accordingly by its level of priority. These were settled by the scrum master or the project manager.

Sprint Backlog. It is the sets of planned product backlog alongside with its time frame, to be implemented in the project to have the real-time visualization of the developer's plan for the development, this was also these plans on how the increments were delivered.

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Increment. It is all the completed or updated work or item during the sprint as well as the previous of it. The previous increment must be mark as done to start the initiation of the new updates or increment.

System Requirements

This phase is where the evaluative process employed by the proponents encompassed aspects such as security, functionality, reliability, efficiency, and usability. A variety of methods were utilized to ensure the consistency of the proposed system such as unit testing, and version control. Additionally, the design and development of the system will incorporate specific software and hardware components.

Table 1**Software Specifications**

Software	Specification
Operating System	Windows 11 Home Single Language 22HZ
Visual Studio Code	Version 1.80.1
Composer	Version 2.6.5
Xampp	MySQL

Software. In the development phase, system software and application software will be used. In the system software, the system may run on Windows 11 operating system and higher system compatibility. The following software is the software application that will be used throughout the phases of the development, specified in version and uses. In terms of application software, the front-end are developed using

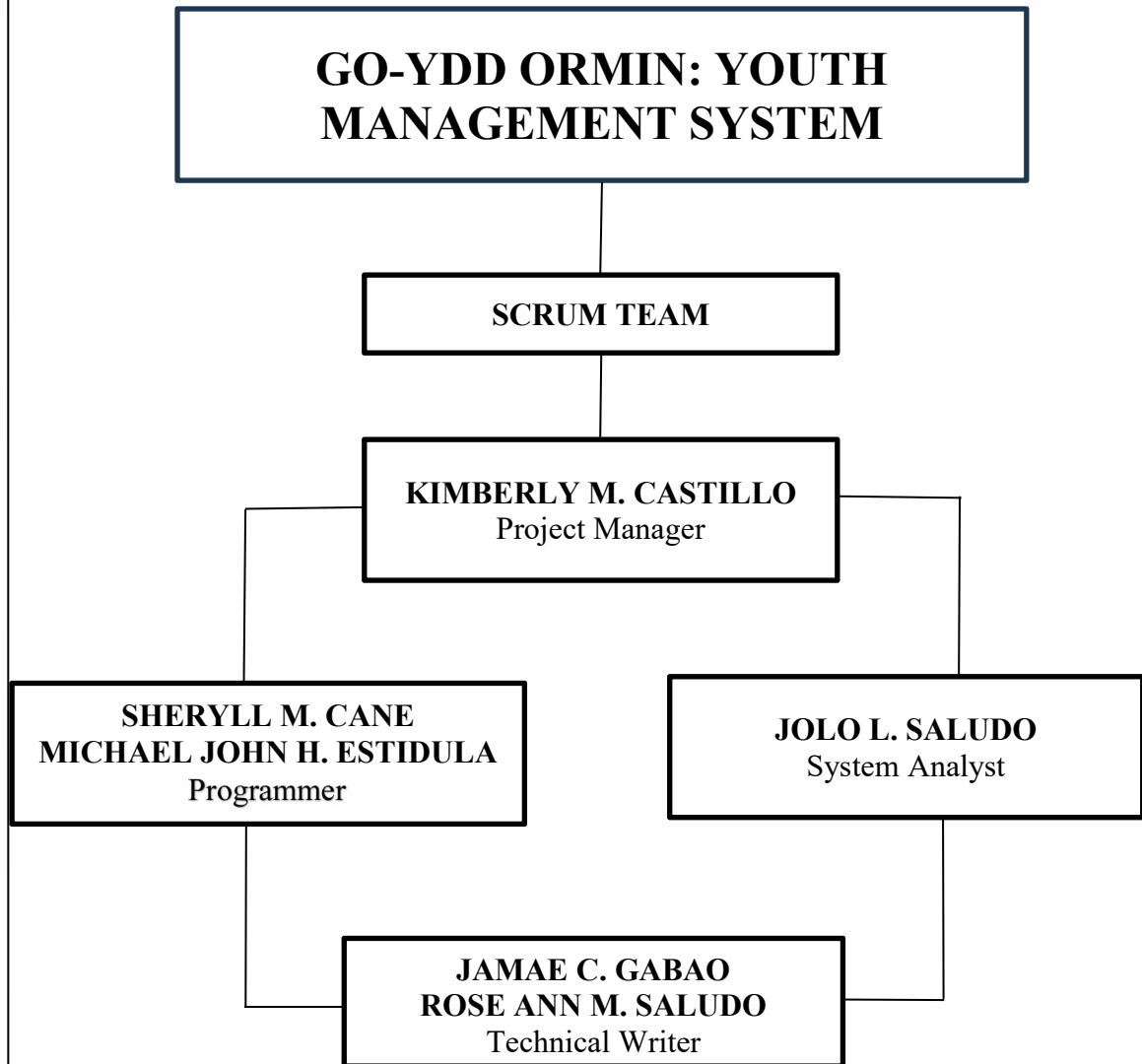
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Vanilla JavaScript and Bootstrap focusing on user interface and visual aspects, while the back-end is powered by Laravel, and MySQL/PHP, serving as the core for data management and processing within the system. The software specification is software used by the programmers in the development of the system.

Table 2**Hardware Specifications**

Hardware	Specification
Processor	11th Gen Intel(R) Core (TM) i3-1115G4 @ 3.00GHz 3.00 GHz
RAM	8.00 GB
Storage	475 GB

Hardware. The following are the hardware that will be used throughout the phases of development. The hardware utilized across the developmental stages includes laptops. These laptops served as the primary tools for the proponents throughout the creation of GO-YDD ORMIN: Youth Management System in different municipalities of province of Oriental Mindoro.

**POLYTECHNIC UNIVERSITY OF THE PHILIPPINES****Figure 2. Organizational Chart**

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Peopleware. Figure 2 shows the organizational chart of the project. The project manager is responsible for developing, leading, and overseeing construction of the progress in project initiation and development during the design phase. System Analysts provide assistance to both scrum team and end users, also provide overview of the project development goals and makes flowchart and diagrams that will be used by the team during the development of the system. Programmer writes code for computer programs. They are also involved in maintaining, debugging, and testing of the system, they also ensure that the system is running smoothly. Lastly, the Technical Writers are responsible for producing documentation and manual of the system. They also work together with the scrum team for project requirements of the system.

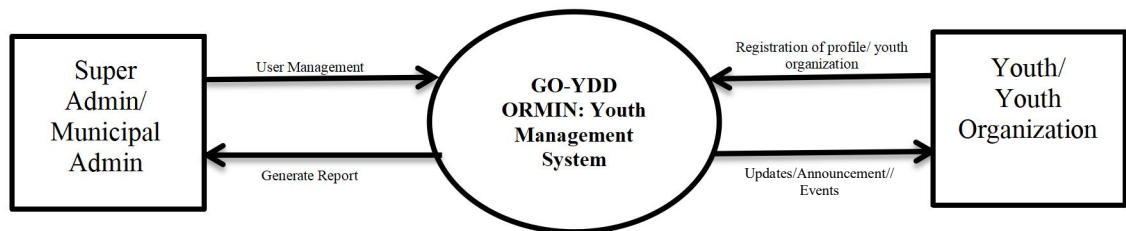


Figure 3. Context Flow Diagram

Figure 3. Context Flow Diagram provides the overview of the GO-YDD ORMIN: Youth Management System. The diagram shows the flow of the system's context. User management, includes other admin tasks and adding users to the system who can manage each municipality. Registration of profile and youth organization, includes inputting data on the system. Generation of Report, system can generate accomplishment and monitoring report, the data provided by the Youth and Youth Organization, and is used by the admins to create events. Lastly, updates,

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announcements, and events are generated by the system and can be accessed and viewed by end users.

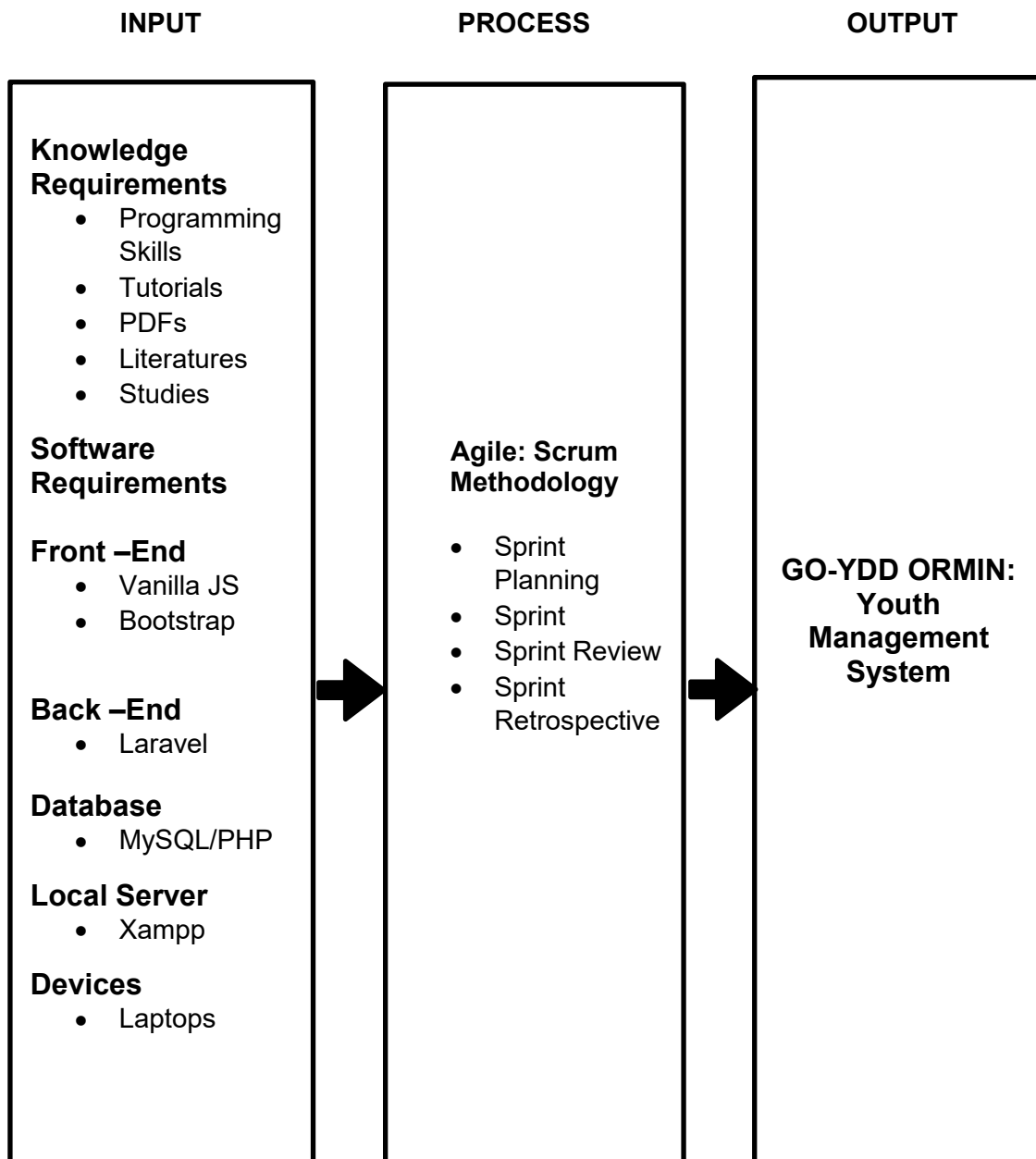
INPUT-PROCESS-OUTPUT

Figure 4. Conceptual Framework