Republic of the Philippines
Eulogio “Amang” Rodriguez Institute Of
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Case-study in Fulfillment of Software Engineering 1

College of Arts and Science

Bachelor of Science in Computer Science

Kainkap ServiceHub: An Information Platform for Kainakap Request and Services

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Chapter 1

1. Historical Background

The development of systems aimed at aiding Persons with Disabilities (PWDs) has a complex historical context deeply intertwined with societal norms, technological advancements, and legislative changes. The evolution of such systems reflects shifts in understanding and addressing the needs of individuals with disabilities, moving from purely charitable approaches to more inclusive and rights-based frameworks.

Historically, societies often viewed disability with shame and exclusion. PWDs faced significant barriers to participation in various aspects of life, including education, employment, and social interactions. Charitable institutions and welfare programs, like KAINAKAP, emerged to provide basic support, but these often fell short in empowering individuals or promoting their integration into mainstream society.

In recent years, there has been a growing emphasis on designing inclusive systems that cater to the diverse needs of PWDs. Rather than treating disability as a medical issue to be remedied, this approach recognizes the importance of accommodating different abilities and providing personalized support. As a result, there has been increasing interest in developing profiling systems that capture the unique requirements and preferences of PWDs to deliver personalized services and interventions. Innovative possibilities for PWD support across various domains have been made possible by the rise of smartphones and mobile apps. These technologies

provide platforms for resource access on-the-go, communication assistance, and personalized help. Additionally, by integrating assessment modules, these apps make it possible to gather necessary data for profiling, which enables more specialized interventions and support services.

Implementing file submission functionality to profiling systems is a major step toward more effective data management and collection procedures. These solutions can guarantee timely information capture while decreasing administrative burdens by enabling users to electronically submit necessary documents. Additionally, it makes it possible for PWDs, caregivers, and service providers to work together effectively, which promotes a more inclusive and involved approach to disability support.

1.1 Organizational Background

The “Kaisahan ng Nag-aaruga at may Kapansanan” o KAINAKAP Organisation started in 2017 by Carmen “Mimi” Esguerra after her old organisation failed to do its duties to its constituents.

Mimi Esguerra started her altruistic intentions in 2007 with an earlier organisation which stopped operation and then continued again somewhen between 2010 and 2011. Mimi was appointed as Treasurer in this organisation where unfortunately, her associates fell inactive due to lack of support from Local Government Units. She quickly climbed ranks and became elected as the president of this organisation in 2012. This allowed her to become a local representative in Manila City

Hall for her constituents. At this position, Mimi noticed rampant politicking and manipulation that led to organisations discriminating against parents with children with disability, refusing them the opportunity to properly represent their struggles to the city council. Mimi Esguerra stood her ground in the years that followed. This is when her efforts were seen by the Manila Department of Social Welfare which got her organisation and others alike to become a federated group all under the banner of KAINAKAP which operated at a regional level representing the National Capital Region.

The organisation was then recognised as a Local Poverty Action Team with former-president Benigno Aquino III's Bottom-Up Budgeting program that aims to alleviate poverty from the grassroots level. This allowed the organisation to participate and represent in the budgeting of local funds to ensure that there is sufficient support coming from local governments.

At the local level, Mimi learned how to address the struggles of people living with disability and parents with disabled children at the grassroots level, specifically at the barangay level. She noticed how persons with disability often rely heavily on social services for support which is one of the main battlecries of persons living with disabilities to have access to their basic rights. She learned that they are not often implemented at the local level in each local government unit which is under the jurisdiction of the Department of Interior and Local Government.

She set her eyes into lobbying for change in DILG which upgraded her organisation federation from a local organisation into a national representative for people with disabilities and parents with children with disabilities. She lobbied to have a law implemented to have access to basic rights and resources for people with disabilities be an indicator of good local governance enticing local government units to rightly ensure accessibility within their jurisdictions and enforce laws that grants access to basic rights and resources for disabled individuals. The organisation also lobbied to have equal representation for parents living with children with disabilities on national fronts in order to properly convey to the government the struggle of parents with children with disabilities. This made KAINAKAP organisation become a lead representative for children with disabilities and parents living with children with disabilities in collaboration with other federations, organisations, and local government units to provide the organisation's constituents the help and resources they need to better manage their disability and help them live independently if possible.

1.2 Division Under Study

Organizational Chart

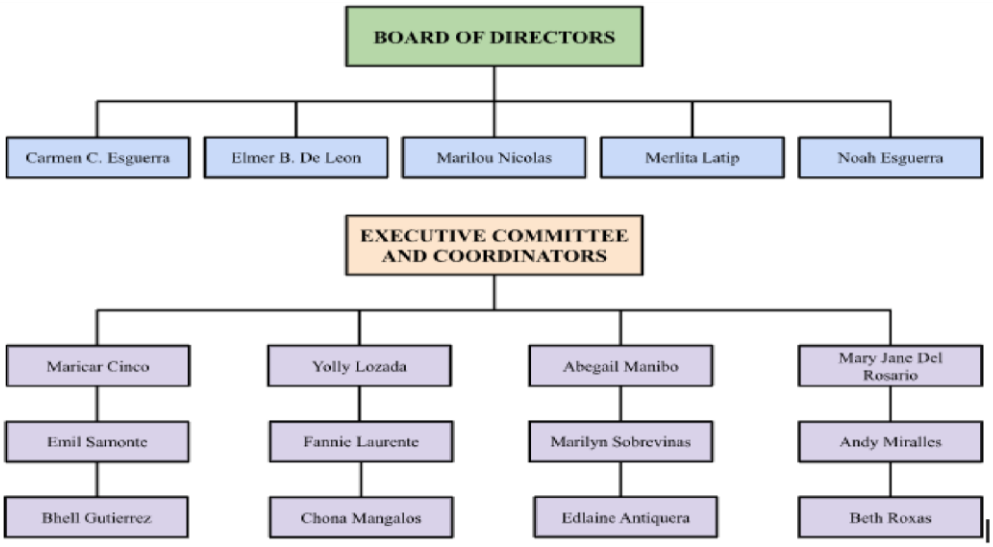

Figure 1. List of all the names under KAINAK

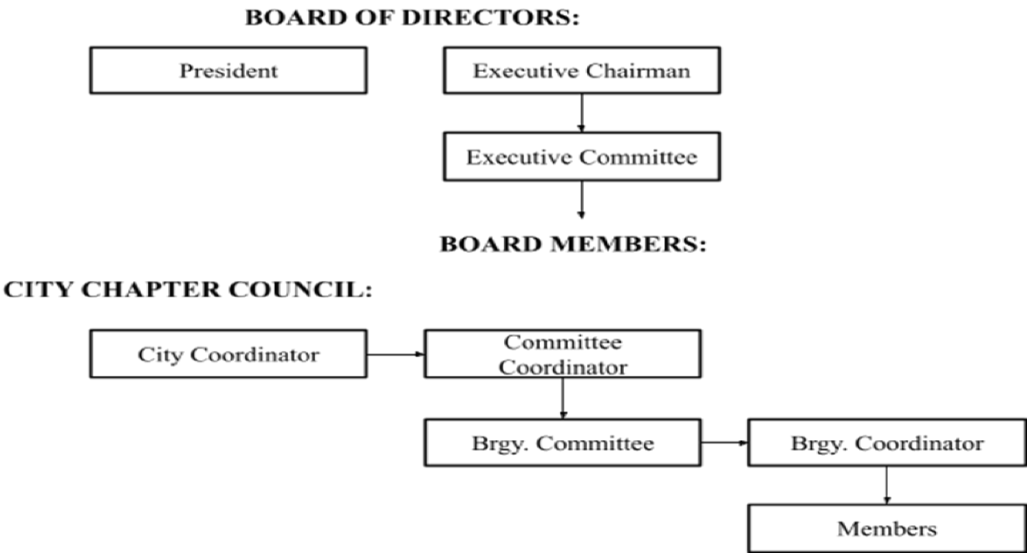

Figure 2. List of all the positions under KAINAKAP

1.3 Statement of the Problem

1. **PWD's Channel for Request and Inquiry.**

   We observed from the previous system that has been proposed to the Kainakap Foundation that it doesn't have an information platform to accept the requests and inquiries of the PWD about their needs.

   Cause:

   - Lack of PWD feedback

   Impact:

   - Blind operational execution due to unhandled requests and inquiries of the PWDs

2. **Identifying the needs of the PWDs in assistive equipment.**

   The Kainakap Foundation takes care of their PWD's needs and treatment. Ma'am Mimi an authority in the Kainakap foundation said that they went to the home of the PWDs to assess the situation and needs of the family. The problem is due to the limited personnel for assessing the PWDs. They cannot process all of the PWD's necessities due to their disabilities.

   Cause:

   - Limited personnel to assess the situation of the PWDs

   Impact:

   - Delay to deliver assistive equipment and help for the PWD

3. **Disseminating mass information platform for event and activities awareness.**

The Kainkap don’t have an information platform to disseminate information about upcoming events and activities. This problem causes slow dissemination of information because of manual processes. There could be PWD who will not be informed in giving of assistive devices and services. They will miss the opportunity to receive aid and help with their disabilities.

Cause:

- lack of mass information platform to deliver news about services

Impact:

- · The PWD could miss the chance to receive the help of assistive devices and services arranged by kainakap.

1.4 Scope and Delimitations

This study focuses on processing organizational data, specifically pertaining to registered PWDs and employee demographics within the system. The system is designed to analyze and interpret this data securely. Only authorized administrators will have access to the interpretations and data visualization features. All information remains classified within the system and will not be exported or further processed externally.

Furthermore, within this secure environment, PWD users are granted specific privileges. They can access information pertaining to events, activities, and relevant news to their interests and needs. This access provides PWDs with a means to stay informed about opportunities and resources available to them, fostering a sense of inclusion and empowerment within the system. By limiting the scope of user access to specific data categories, such as events and news, the system ensures that PWDs can benefit from relevant information while upholding stringent privacy measures to safeguard their sensitive data.

Chapter 2

2.1 System Name and Background

Kainkap ServiceHub is an innovative web-based platform developed to facilitate communication and information dissemination within the Kainakap community, focusing on supporting Persons With Disabilities (PWDs). Its primary function is to enable administrators to post updates about events and services relevant to PWDs, ensuring timely access to crucial information. By centralizing resources and fostering community engagement, Kainkap ServiceHub aims to enhance accessibility and empower PWDs to actively participate in events beneficial to their needs.

2.2 System Analysis Tools

2.2.1 Systems Outline

Volunteer Application

1. Interested volunteers can start by filling out a detailed application form (Resume/CV), highlighting their skills, experiences, and reasons for wanting to volunteer with Persons with Disabilities (PWDs).
2. Applicants may be required to submit their resumes and provide references to verify their background and suitability for working with

   PWDs.

3. Shortlisted candidates may undergo an interview to assess their communication skills, empathy, and understanding of the needs of PWDs.
4. Depending on the nature of the volunteer work, a background check may be conducted to ensure the safety and well-being of the PWDs.

II. Volunteer Orientation and Training

1. Volunteers may attend an orientation session to understand the organization's mission, values, and expectations, as well as specific guidelines for working with PWDs.
2. Based on the volunteer's skills and preferences, they will be assigned a specific role that aligns with the needs of the PWDs and the organization.
3. Ongoing training opportunities are provided to ensure volunteers stay updated on best practices and continue to enhance their skills in supporting PWDs.

III. PWD Membership Application

1. Gather documents confirming your disability status, such as a medical certificate or disability ID.
2. Visit the official website or contact the PWDs organization to obtain the membership application form.
3. Fill out the form with accurate personal information, including details about your disability and contact information.

4. Include copies of the eligibility proof, identification, and any other documents specified in the application guidelines.
5. Send the completed form and supporting documents through the preferred submission method, such as online submission, mail, or in-person at the organization's office.

Once submitted, wait for the organization to review your application. You may receive confirmation of your membership status or further instructions if additional information is needed.

Context Diagram

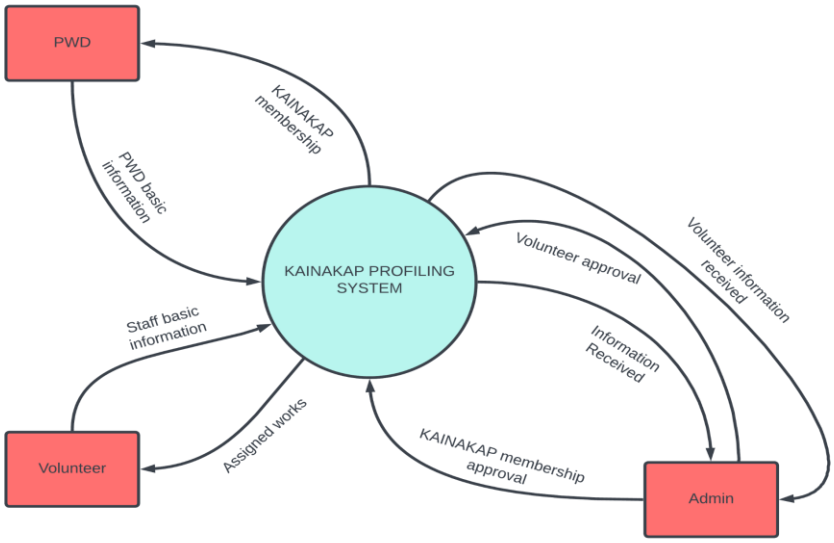

Figure 3. KAINAKAP current system

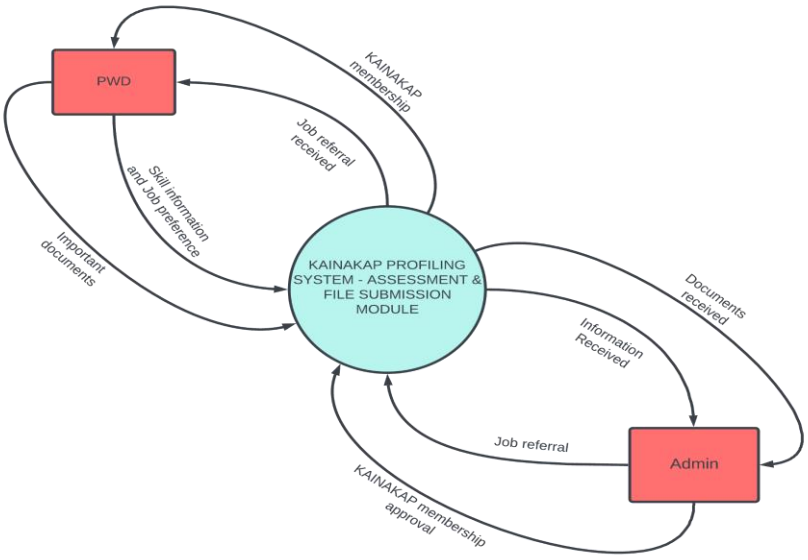

Figure 4. KAINAKAP proposed system module Data Flow Diagram

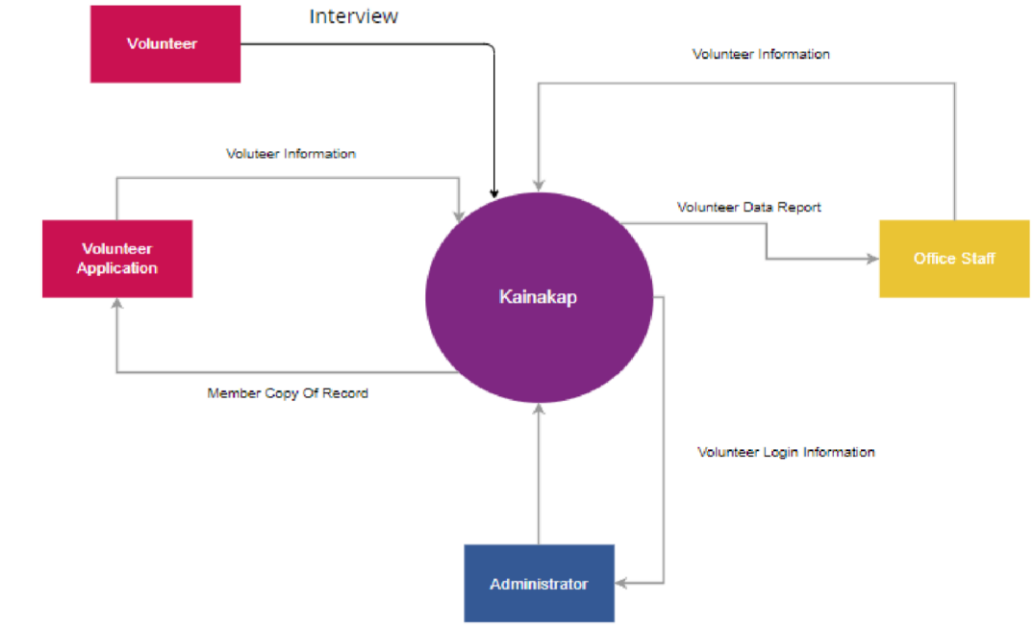

Figure 5. KAINAKAP current profiling system

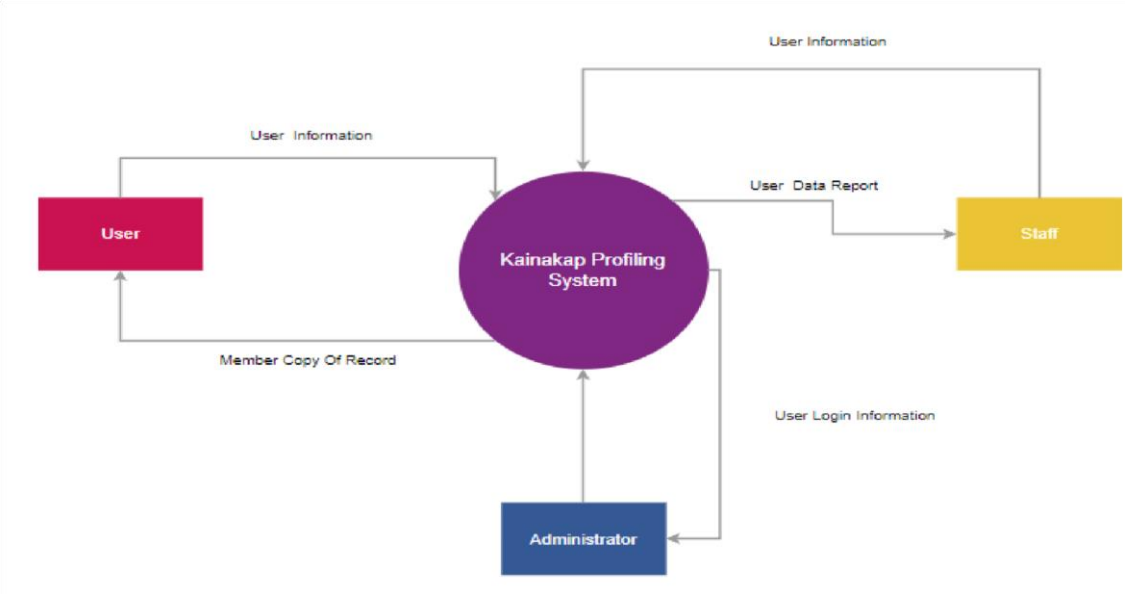

Figure 6. KAINAKAP proposed the profiling module

Data Dictionary

PWD Information

Field Name	Field Type	Field Length	Description
ID	Numeric	10	PWD's Unique Identifier
Name	Alphanumeric	20	PWD's Name
Email	Alphanumeric	50	PWD's Email
Address	Alphanumeric	150	PWD's Address
Mobile Number	Numeric	10	PWD's Mobile Number
Nature of Disability	Alphanumeric	20	PWD's Nature of Disability
Name of Guardian	Alphanumeric	20	Guardian's Name
Guardian's Mobile Number	Numeric	10	Guardian's Mobile Number
Date	Datetime	10	Date Registered

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Guardian Information

Field Name	Field Type	Field Length	Description
ID	Numeric	10	Guardian's Unique Identifier
Name	Alphanumeric	20	Guardian's Name
Email	Alphanumeric	20	Guardian's Email
Address	Alphanumeric	150	Guardian's Address
Mobile Number	Numeric	10	Guardian's Mobile Number
Name of Dependent	Alphanumeric	20	Name of Individual with Disability
Date	Datetime	10	Date Registered

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Personnel Data

Field Name	Field Type	Field Length	Description
ID	Numeric	10	Unique Identifier
Name	Alphanumeric	20	Name
Email	Alphanumeric	20	Email
Password	Alphanumeric	20	Password
Address	Alphanumeric	150	Personnel's Address
Mobile Number	Numeric	10	Mobile Number
Job Title	Alphanumeric	20	Job Title
Date	Datetime	10	Date Registe red

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User Requirements

Administrator

- Overall authority and management of the system.
- Manages user access and permissions.
- Responsible for maintaining system security and integrity.
- Handles system backups and updates.

Registrar

- Registers new PWDs (Persons with Disabilities) into the system.
- Updates existing PWD records with any changes.
- Verifies the authenticity of PWD status documents.

Guardian Representative

- Represents guardians of registered PWDs in the system.
- Provides necessary information about the PWD under their care.
- Updates contact details and other relevant information as needed.

Technical Support

- Provides assistance and troubleshooting for system users.
- Addresses any technical issues or concerns promptly.
- Offers training sessions for new users or updates to the system.
- Conducts regular system maintenance and updates to keep it operational and secure.

Software Requirements

You might achieve entirely new levels of productivity using the Kainakap Metric System. It is made to function smoothly with popular software programs like Windows and others. Precision and compatibility work together with Kainakap to make sure your metrics run smoothly across digital landscapes, making your job easier and fortifying its complex integration with the program of your choice. Imagine a metric system that works seamlessly with the software you like, improving accuracy and productivity in a variety of digital environments.

- Browser: Chrome, Firefox, Opera, InternetExplorer
- Computer running on Windows Linux, and Mac Operating Systems
- System Compatibility
- Recommended At least Windows 10 same level as the other operating system

Hardware Requirments

You can gain efficiency with the Kainakap Metric System without needing to purchase an expensive PC. Kainakap is designed to work seamlessly on a variety of setups, so high-end hardware won't be necessary to fully utilize its potential. A dedicated graphics card or an expensive PC are not necessary for using Kainakap.

Because of its adaptability, it operates smoothly on low-end computers and Intel i3 CPUs, demonstrating that you don't need a powerful setup to enjoy accuracy and convenience in your computations.

- Desktop Or Laptop

- Smart Phone
- Recommended At least 4 GB RAM and 64 GB ROM
- Internet connection of a minimum speed requirement of 20 mbps

Chapter 3

3.1 General Objectives

The overarching objective of this initiative is to establish an inclusive and accessible service hub, tailored specifically to address the needs of Persons with Disabilities (PWDs) and enhance their overall well-being. Through the implementation of innovative strategies and technologies, our aim is to achieve the following:

3.2 Specific Objectives

- Facilitate Communication Channel: Develop and implement a user-friendly channel for PWDs to submit requests and inquiries, ensuring accessibility and inclusivity in all communication processes.

- Optimize Assistive Equipment Provision: Conduct thorough assessments to accurately identify the assistive equipment needs of PWDs, and establish efficient mechanisms for procurement, distribution, and maintenance of such equipment.

- Promote Community Engagement: Utilize a mass information platform to disseminate awareness about events, activities, and resources relevant to PWDs, boosting community engagement and participation.

3.3 Presentation of Alternatives

3.3.1 Alternative no.1: Manual Set-Up System

This alternative setup suggests using a manual infrastructure to manage the Kainakap Foundation's internal data. In this setup, no computers or digital technologies are used; all data is physically recorded and preserved. To handle data entry, storage, retrieval, and distribution duties using conventional pen-and-paper methods. Employees are responsible for appropriately documenting information inside their respective domains under this manual setup. Data encoders are responsible for accurately and completely entering all incoming data. Supervisors keep an eye on the data input procedure, ensuring that records are accurate and upholding quality control procedures.

Advantages of Manual Set-up

- Tangible Data Records: With a manual setup, data is tangible, and stored in physical form such as paper documents or logbooks. This provides a sense of security, as physical records are not susceptible to digital vulnerabilities such as hacking or data corruption.
- Customizable Organization: Manual data management allows for flexible organization methods tailored to the specific needs of the Foundation. Information can be categorized, sorted, and stored according to unique requirements, allowing for efficient retrieval and reference.
- Reduced Technology Dependence: By opting out of digital systems, the Foundation reduces its dependence on technology infrastructure and associated costs. There’s no need for expensive software licenses, hardware maintenance, or cybersecurity measures, making the manual setup a cost-effective option in the long term.

3.3.1.1 System Flowchart (Manual)

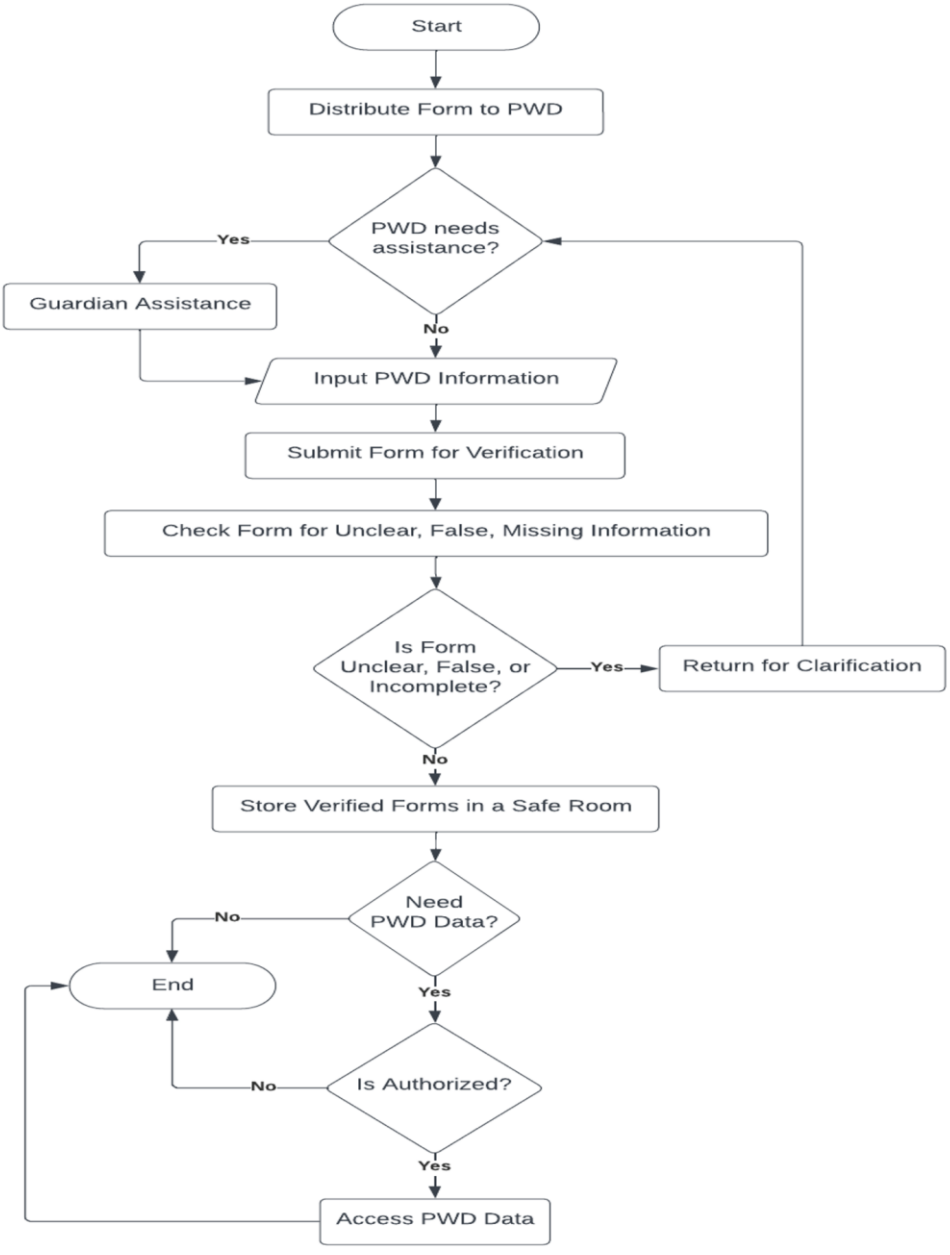

Figure 7. Existing flowchart

3.3.1.2.1 Network Layout (Manual Set-Up)

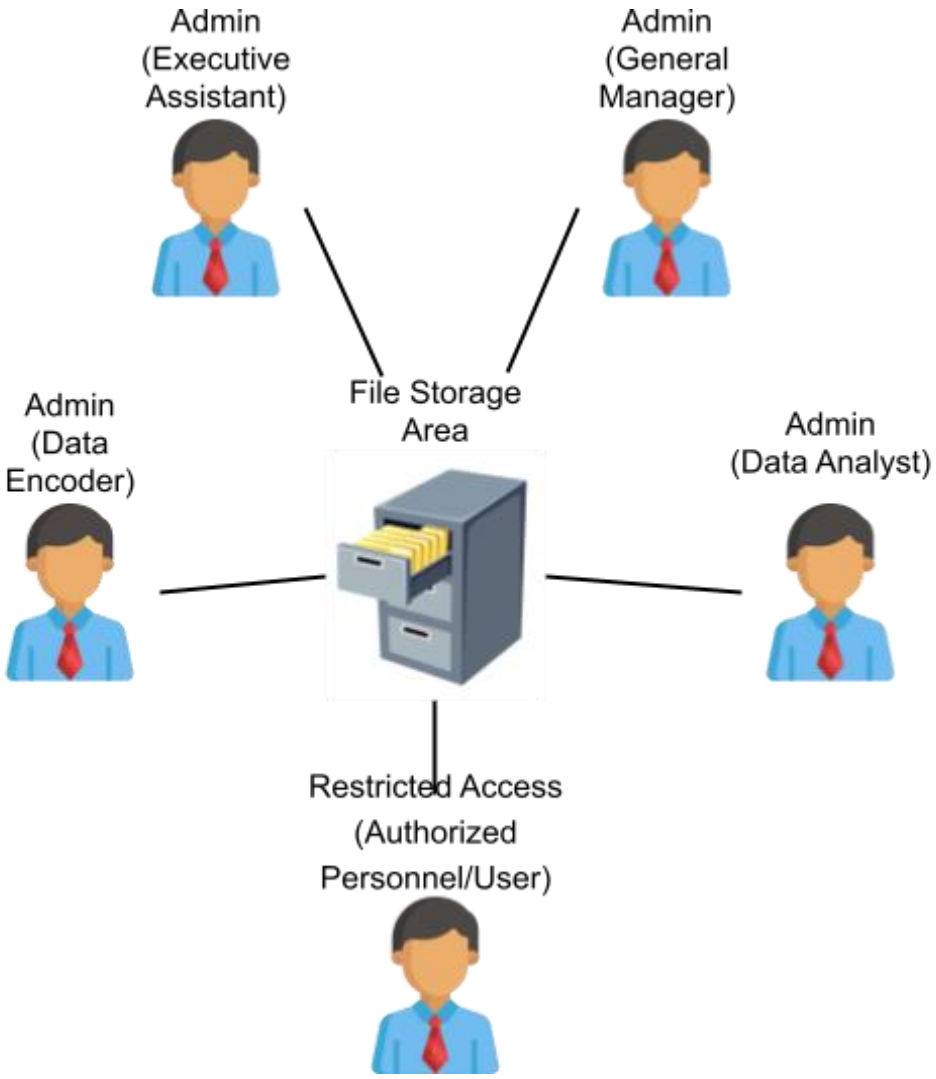

Figure 8 Network Layout (Manual Set-Up)

3.3.1.2.2 Database/Tables (Manual set-up)

Kainakap PWD's Registration

Field Name	Field Type	Size	Decimal
Id	Numeric	10	0
Name	Alphanumeric	50	0
Gender	Alphabetic	50	0
Age	Numeric	10	0
Address	Alphanumeric	50	0
City	Alphabetic	50	0
District	Alphabetic	50	0
Contact No.	Alphanumeric	20	0
Disability	Alphabetic	50	0
Member Status	Alphabetic	20	0

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3.3.1.2.3 Reports (Manual Set-up)

The following are the possible reports that can be generated:

- Event Participation Report - Provides insights into the attendance and participation rates of PWDs in various events hosted on the platform. Helps Kainakap to assess the effectiveness of event notifications and identify areas for improvement.

- Event Impact Assessment Report - Evaluates the impact of events on the well-being and empowerment of PWDs. Includes quantitative data to measure the effectiveness of events in meeting the needs of the target audience.
- Demographic Analysis Report - Provides demographic insights into the user base, including age, gender, location, and types of disabilities. Helps Kainakap to understand the diversity within the community and tailor services and resources accordingly.
- Budget and Expenditure Report - Tracks event-related expenses and budget allocations, including costs for venue rental, equipment, materials, and personnel. Enables effective budget management and accountability, ensuring that resources are allocated efficiently to maximize impact.

3.3.1.2.4 Manual Process (Manual Set-up)

- The personnel physically assess the PWD situation in their respective home.
- Kainakap personnel attend to the location of their target barangay.
- The Kainakap informed their barangay partner to disseminate information about them.
- Traditionally filling out forms to register the patient as Kainkap PWD recipient.

3.3.1.3 Requirement Definition (Manual Set-up)

Items	Required	Existing	Needed
Forms A4 Papers	100	40	60
Writing Tools Pen (Black ink)	80	40	40
Organizing Files Folders/Envelopes	50	2	5
Security Safe Room	1	1	0
Storage Filing Cabinet	20	2	1
Printer Canon IP Pixma 2770	4	1	3

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3.3.1.4 Cost and Benefit Analysis (Manual Set-up)

COST

Items	Cost
Forms A4 Papers (PHP per 250 bundle) quantity 10	PHP 25,000
Writing Tools Pen (Blank ink) PHP 300 per box, quantity 2	PHP18,000
Organizing Files Folders/Envelopes (450 per bundle), quantity 3	PHP 15,000
Storage Filing Cabinet (1000 per piece), Quantity 2	PHP 20,000
Security Room	PHP 70,000
Canon IP Pixma 2770, 5000 per unit	PHP 20,000
Total One Time Cost	**PHP 225,000**
Recurring Cost	

Employee Cost ● Executive Assistant	PHP 30,000.00
● Factory Supervisor	PHP 15,000.00
● Head, purchasing and inventory division	PHP 12,000.00
Total Recurring Cost	**PHP 57,000**
Total Cost	**PHP 282,000**

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3.3.1.5 Computation for Payback Period (Manual Set-up)

Total Costs:	**PHP 282,000**
Total Savings:	PHP 0.00

3.3.1.6 Tangible and Intangible Benefits (Manual Set-up)

Tangible Benefits:

1. Cost Savings: Manual setups entail lower initial investment and maintenance costs compared to digital systems.
2. Durability of Records: Physical documents are less prone to technological failures, ensuring longevity and accessibility.

3. Accessibility: Manual records can be accessed without electronic devices or internet connectivity, even in remote areas.
4. Regulatory Compliance: Manual record-keeping may fulfill regulatory requirements, avoiding potential fines.

Intangible Benefits:

1. Sense of Security: Tangible records provide a secure and controllable data management environment.
2. Personal Touch: Manual processes foster employee engagement and accountability through human interaction.
3. Flexibility: Manual systems offer adaptability to customize processes and respond quickly to change.
4. Cultural Preservation: Maintaining manual practices honors organizational history and values.
5. Skill Development: Manual setups promote skill development in document management and organization.
6. Environmental Sustainability: Manual systems may reduce energy consumption and electronic waste, contributing to sustainability efforts.

3.3.1.7 Graphical User Interface

Figure 9. Manual Setup Interface

3.3.2 Alternative no. 2: Online Set-up

Another feasible option is to develop an online infrastructure specifically for managing the Kainakap Foundation's internal data. This setup uses cloud-based storage options, with all organizational data securely stored on a dedicated cloud server. By taking this method, the Foundation may achieve seamless connectivity among its many offices and administrators.

Employees in this online setup are not only empowered to interact with corporate data within the constraints of their given permissions, but they are also entrusted with managing online posts and events that are specifically geared to Persons with Disabilities. This job includes gathering and disseminating pertinent information about future events, workshops, and resources geared at improving the well-being and inclusivity of the PWD community. Administrators also monitor the planning of PWD-centric operations, ensuring that they run smoothly and that people participate actively via the online platform. This systematic approach not only improves data management operations, but it also allows for proactive outreach and engagement programs, establishing a positive environment for people with disabilities within the firm.

Advantages of Online Set-up

1. Accessibility and Convenience - Users can access information from anywhere with internet connectivity, providing convenience and eliminating the need for physical travel.
2. Timeliness - Information can be updated and disseminated in real-time, ensuring timely access to important updates and events.
3. Reach and Coverage - Can reach a broader audience beyond the immediate vicinity of barangays, including PWDs in rural or remote areas with limited access to local resources.
4. Cost-Effectiveness - Requires initial investment in setting up the online platform but incurs minimal ongoing costs for information dissemination.
5. Scalability and Flexibility - Can scale up to accommodate a growing user base and evolving needs, with the flexibility to add new features and functionalities over time.

3.3.3.1 System Flowchart (Online Set-up)

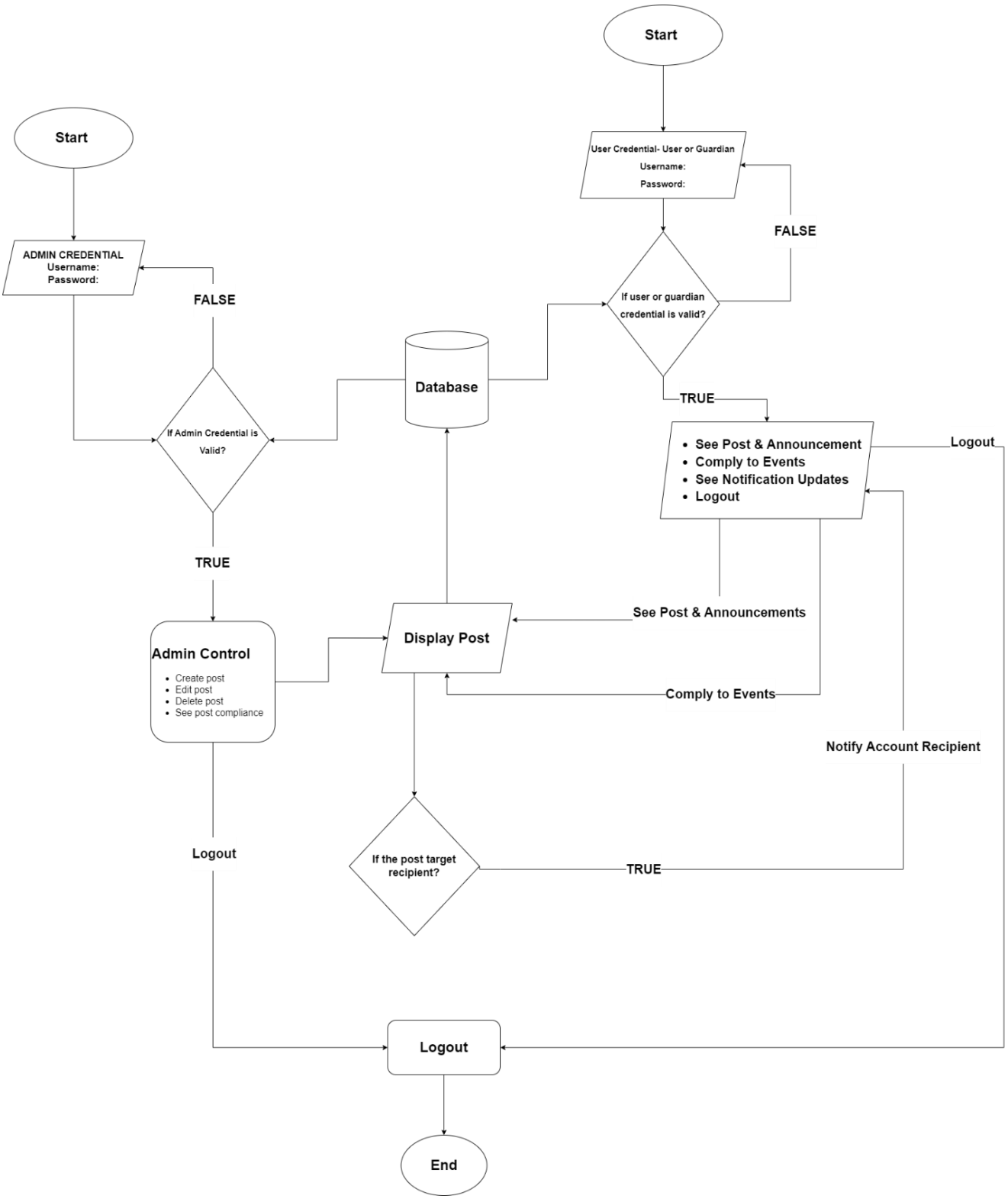

Figure 10. Online Set-up Flowchart

3.3.3.1 Network Layout (Online Set-up)

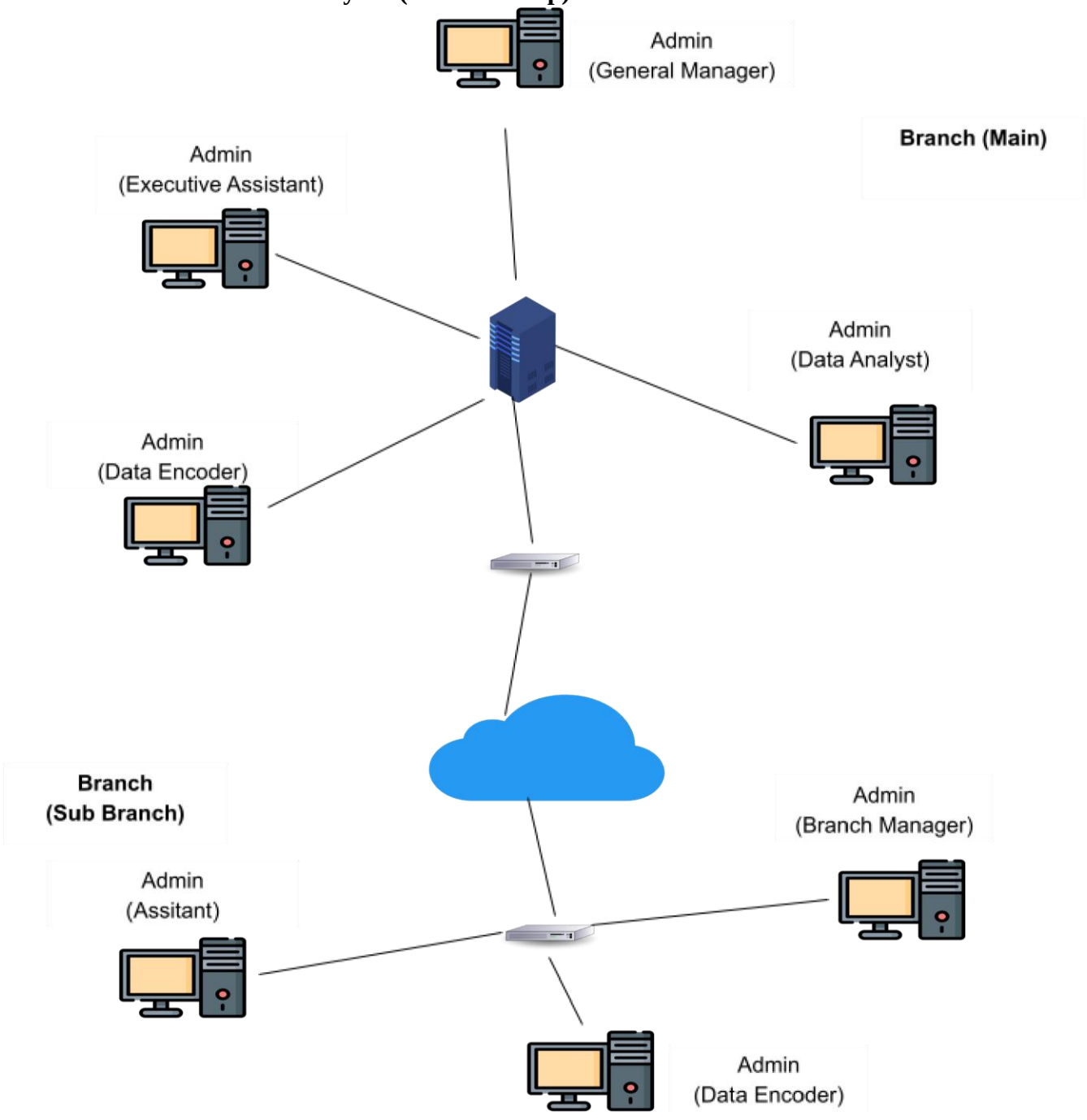

Figure 11. Network Layout (Online Set-up)

3.3.3.2 Database/Tables (Online Set-up)

User Account

Field Name	Field Type	Size	Decimal
Id	Numeric	10	0
Username	Alphanumeric	30	0
Password	Alphanumeric	30	0
Name	Alphanumeric	80	0
Age	Numeric	3	0
Gender	Alphanumeric	10	0
Disability	Alphanumeric	50	0

Kainakap PWD's Account

Admin Account

Field Name	Field Type	Size	Decimal
Id	Numeric	10	0
Username	Alphanumeric	30	0
Password	Alphanumeric	30	0

Kainakap Admin Account

3.3.3.3 Reports (Online Set-up)

The following are the possible reports that can be generated:

- Event Participation Report - Provides insights into the attendance and participation rates of PWDs in various events hosted on the platform. Helps Kainakap to assess the effectiveness of event notifications and identify areas for improvement.
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- Budget and Expenditure Report - Tracks event-related expenses and budget allocations, including costs for venue rental, equipment, materials, and personnel. Enables effective budget management and accountability, ensuring that resources are allocated efficiently to maximize impact.

Automated Process (Online Set-up)

The computerized system streamlines the registration process for PWDs:

1. **Online Registration:** PWDs fill out registration forms through a secure online portal.
2. **Automated Assistance:** The system provides assistance and guidance throughout the registration process, ensuring completeness and accuracy.
3. **Real-time Verification:** Information provided is verified instantly against existing databases to minimize errors and ensure compliance.
4. **Secure Data Storage:** Verified data is securely stored in an encrypted database, accessible only to authorized personnel.
5. **Automated Reporting:** The system generates comprehensive reports periodically, providing insights into demographics, medical conditions, service utilization, verification status, and legal protections.

3.3.3.4 Requirement Definition (Online Set-up)

Items	Required	Existing	Needed
Personal Computer *Definition* (LenovoCentre M91p DC5800 Intel Core i5 i5-2400 3.0GHz 6MB Cache Memory / 4GB DDR3 / 500GB SATA HDD /	5	2	3
NVIDIA Quadro FX380 (DVI + DP)/Built-in Monitor 24 inch)			

Software ● Operating System (Windows XP/Windows Vista/ Windows 10 home/ Windows 10 pro but preferably Windows 10 (Pro))	5	2	3
Back-up Seagate 1TB HDD Hard Drive (USB 3.0 & 2.0)	5	0	5
Printer Canon IP Pixma 2770	5	3	2
Router	2	1	1

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3.3.3.5 Cost and Benefit Analysis (Online Set-up)

Items	Cost
Hardware ● (4) Personal Computer (LenovoCentre M91p DC5800 Intel Core i5 i5-2400 3.0GHz 6MB Cache Memory / 4GB DDR3 / 500GB SATA HDD / NVIDIA Quadro FX380 (DVI + DP)/ Built-in Monitor 24 inch)	PHP 76,000.00

Software ● (5)Operating System (Windows XP/Windows Vista/but preferably Windows 10 pro 7) (PHP 9,680.00)	PHP 48,400.00
Back-Up ● (3) Seagate 1TB Hard Drive Portable Hard Drive	PHP 12,000.00
(USB 3.0 & 2.0) (PHP 4,000.00 each)	
Printer Epson Ecotank L3210 A4 All-in-One Ink Tank Printer	PHP 7,500
Router TP-Link AC1750 3	PHP 7,500

Internet fibr	PHP 6,000
Total One Time Cost	**PHP 157,000.00**
Recurring Cost	
Maintenance ● I.T. Personnel for Monthly Maintenance (5) (PHP 1,000.00 each) and (1) for server maintenance (PHP 5000.00) ● Money Allotted for Computer Problems (Both Hardware and Software) (PHP 2,000.00 each)	PHP 10,000.00 PHP 10,000.00

Employee Cost ● Executive Assistant	PHP 30,000.00
● Factory Supervisor	PHP 15,000.00
● Head, purchasing and inventory division	PHP 12,000.00
Electricity Cost ● Monthly Cost of Computers and fax machines only (Main office and factory)	PHP 2,000.00
Printer Cost ● CISS Dye Ink	PHP 2,500.00
DSL (PLDT MyDSL) (1)	PHP 899.00 /month
Total Recurring cost	**PHP 82, 399.00 /month**
Total Costs	**PHP 239, 399.00**

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3.3.3.6 Computation for Payback Period (Online Set-up)

Total Costs (Manual):	PHP 282,000.00
Total Cost (Online Setup)	PHP 239,399.00
Total Savings:	PHP 43,000.00

Total Savings(Manual Cost – Online Setup Cost) = PHP 43,000

Total saving per year in Online Setup = (6.5%) Total saving = PHP 43,000

3.3.3.7 Tangible and Intangible Benefits (Online Set-up)

Tangible Benefits:

1. Equipment Durability: A computerized system reduces wear and tear on physical equipment, extending its lifespan and lowering maintenance costs.
2. Computerized System: Enhances durability by minimizing reliance on physical documents, ensuring data integrity, and reducing the risk of loss or damage.
3. Accessibility: Allows immediate access to data from any authorized device with internet connectivity, eliminating the need for physical proximity to documents.
4. Multiple User Setup: Enables simultaneous access and updates by multiple users, promoting collaboration and efficiency without conflicts.

5. Quick Regulatory Compliance: Facilitates compliance through automated tracking and reporting, providing real-time updates and accurate reports to avoid fines or penalties.

Intangible Benefits:

1. Cost Savings: While there will be an initial investment in setting up the centralized database, emphasize the long-term cost savings through reduced paperwork, storage space, and streamlined processes.
2. Accessibility: With a centralized database, emphasize the ease of access to information from anywhere with an internet connection, enabling remote access and enhancing efficiency.
3. Accessibility: With a centralized database, emphasize the ease of access to information from anywhere with an internet connection, enabling remote access and enhancing efficiency.
4. Sense of Security: Explain the enhanced security measures such as encryption, access controls, and regular backups provided by a centralized database system.
5. Environmental Sustainability: While manual systems reduce electronic waste, highlight how a well-designed database system can contribute to sustainability efforts by reducing paper usage and energy consumption associated with manual processes.

3.3.3.8 Benefits (Online Set-up)

1. Fast processing of PWD's information
2. Decrease human error in data encoding
3. Paper less transaction
4. Accessibility of data in the cloud storage
5. Real-time data exchange
6. Efficient monitoring of kainakap data.

3.3.3.9 Graphical User Interface (Online Set-up)

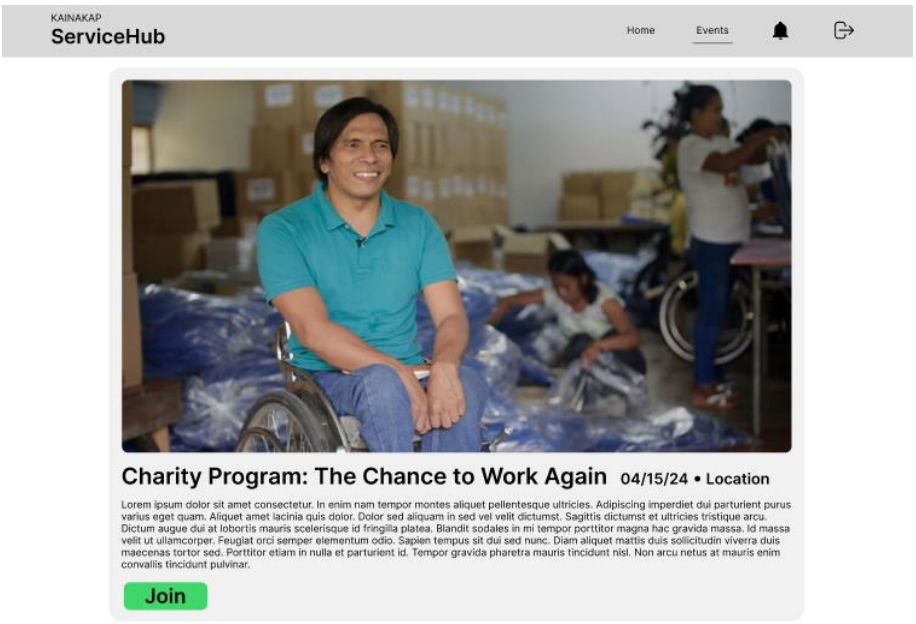

Figure 12. Graphical User Interface (Online Set-up)