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Tunku Puteri Intan Safinaz**

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BKAZK3993 ACADEMIC PROJECT

FIRST SEMESTER SESSION 2025/2026 (A251)

GROUP A

GROUP PROJECT REPORT:

PROGRAMME MANAGEMENT SYSTEM

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<https://academicprojectgp4.infinityfree.me/>

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Finally, we would like to thank our families and friends for their continuous encouragement, understanding, and moral support throughout this project. Their motivation and support helped us remain focused and determined. This project represents a collective effort, and its success is a reflection of the contributions and dedication of everyone involved.



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In my honour I, Tuan Nur Izza Nasuha binti Tuan Rosidi, 291319 as a student from Tunku Puteri Intan Safinaz School of Accountancy, have neither knowingly given nor received any inappropriate assistance in academic work on this assignment for the course BKAZK3993 ACADEMIC PROJECT. I have also not plagiarized or be complicit with those who do. I pledge that throughout the duration of receiving this remote learning assessment task till submission I have been honest and observed no dishonesty.

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janice

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Signature:

Le Xuan

Name: Foo Le Xuan

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Signature:

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Date: 19th January 2026

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1.0 Project overview

1.1 Overview of Kampung Tanah Merah

Kampung Tanah Merah is a rural village in Jitra, Kedah, located in northern Malaysia. It is a small but active community made up of three main areas: Kampung Taman Merah Luar, Kampung Taman Merah Dalam, and Kampung Taman Merah Baru (Kilang). The village has around 150 houses, with an estimated population of 550–600 people. Most residents are Malay, with smaller groups of Indian, Pakistani, and Chinese families. Many villagers are between 40 and 50 years old, and there is also a notable number of elderly residents above 60.

Based on interviews, it is clear that the village places strong emphasis on education and youth development. About 30 students aged 12–18 regularly participate in weekly activities and volunteer programmes. They also receive extra support through tuition classes in Mathematics and English, taught by visiting external teachers. For younger children, a nearby kindergarten provides early education and helps prepare them for school.

Next, agriculture is the main source of livelihood for the community. Many villagers work as paddy farmers or general agricultural farmers, especially those under 60. Some work in nearby factories, while others run small businesses such as food stalls and grocery shops. Even with limited economic resources, Kampung Taman Merah is well known for its strong community spirit, and the residents actively join village programmes and activities.

However, the village does face several challenges, especially in terms of public facilities and record-keeping.

- Village documentation is still done manually and is often outdated, making it harder to keep track of information, especially residents' personal data and records of village activities.
- Complaints are usually shared verbally or through WhatsApp.
- Details about the village's history and achievements are mostly stored in people's memories rather than proper records.

Even with its limitations, Kampung Taman Merah is known for being very active in community and tourism-related programmes. These include fun runs, field sports activities, community clean-ups, CSR events, and a foster student programme involving 40 students and 15 families. Participation rates are generally between 20–50%, showing strong involvement from the community. The village has also won awards such as the Best Village Award, although proper documentation of achievements is still limited.

Overall, Kampung Taman Merah is a lively rural community with strong traditions and a high level of cooperation among its residents. The interview conducted for this assignment provides useful insight into the village's daily operations, challenges, achievements, and the need for a more organised system to support future development.

1.2 Project Objective

The main objective of this assignment is to propose and design a systematic information management system for the Village Development and Security Committee (JKKK) of Kampung Taman Merah. The system is intended to help the committee manage its administrative tasks more effectively. At the moment, most information, such as activity records, achievements, and

participation lists, is recorded manually or shared informally. This often leads to information becoming outdated, misplaced, or difficult to retrieve.

This system aims to:

- centralise and organise all village documentation,
- record activities, meetings, and community programmes,
- store participation and achievement data, and
- support better planning and decision-making for future activities.

The system design is based on information gathered through interviews and observations with the village committee. With this system, JKKK will be able to manage data more easily and keep information updated and organised. This ensures that village activities and achievements are properly recorded for long-term reference. Besides documentation, the system will also allow JKKK to view activity lists, reserve event slots, upload paperwork, track progress, monitor budgets, manage income sources, and review programme outcomes.

For the **village head**, the system provides a clear overview of all village activities, making approval and monitoring much easier.

For **residents**, the system offers a village activity calendar, reminders about upcoming programmes, and an easy way to register for activities.

For **guests**, they can request to conduct programmes by filling in an application form via the system.

Overall, this project aims to develop a digital platform that improves organisation, accessibility, and efficiency for the entire Kampung Taman Merah community.

1.3 Problem Statement

1.3.1 Unsystematic Activity Application Process

Currently, the procedures of submitting and approving community activities in Kampung Tanah are still based on manual mechanisms, for example via WhatsApp, paper-based submissions, or face-to-face submissions. This practice usually results in lack of communication, lost papers, and procrastination of approval by the village head. There is no centralized system thus resulting in poor coordination among the committee members (AJK) and thus hard to efficiently monitor the progress of the activity proposals.

1.3.2 Lack of Transparency and Status Tracking

AJK tends to be confused about the status of their presented ideas or whether they have been approved or not. Communication is executed by use of various informal means and as such, this makes it difficult to know whether or not an application was reviewed or approved. Such lack of transparency would cause confusion, follow-ups and frustration amongst members and eventually slows down the process of implementing activities within the villages.

1.3.3 Inefficient Approval Workflow

The approval process handled solely by the village head can be delayed due to time constraints, lack of reminders, or manual tracking. When multiple applications are submitted simultaneously, it becomes difficult to manage priorities and respond promptly. The absence of an automated notification or reminder system can further contribute to approval delays, affecting the timely execution of planned programs.

1.4 System Objectives

Programme Management System objective is to create and put into place a centralised, digital system to improve and expedite the administration of community activity applications in Kampung Tanah, thereby addressing problems with efficiency, transparency, and communication. Our objectives are:

1.4.1 Centralise and digitalise the application process of the activities management

The first objective is to streamline and optimize the application process by developing and implementing a single, unified digital platform for all community activity submissions and approvals. The current, disjointed manual processes, like WhatsApp or paper forms, will be completely replaced by this. This is essential because the creation of a single digital entry point ensures the timely collection, standardisation, and safe storage of application data. In the end, this ensures data integrity and provides a clear, official channel for initiating all community projects by removing lost submissions, misunderstandings regarding document versions, communication breakdowns, and reliance on people's recollections.

1.4.2 Provide Real-time transparency and status tracking

By incorporating a system-generated notification mechanism and real-time status tracking into the platform, the second goal is to guarantee real-time transparency and status tracking. By clearly defining and displaying each application's current stage (e.g., Pending Review, Approved), this directly addresses the lack of clarity. Importantly, the platform will use system-generated notifications (like emails or notifications) that are triggered by status changes. This will automatically notify the relevant committee members (JKKK) without requiring manual follow-ups, avoiding the confusion and delays that come with unclear process statuses.

1.4.3 Establishing an efficient and structured approval workflow

Establishing an effective and organized approval workflow that gives the Village Head access to system-generated status indicators, prioritization tools, and clear review procedures is the third goal. This is essential for increasing management capacity because the system will replace time-consuming and error-prone manual tracking with a structured interface that identifies precisely which applications need to be attended to. The Village Head will be guided through a standardized decision-making process by system-generated status indicators (such as flags for approaching deadlines) and prioritization tools to handle multiple simultaneous submissions. This will ensure timely responses, consistent management of priorities, and ultimately a much faster implementation rate for approved community activities.

1.5 Scope of the System

The scope of this system defines the boundaries of the Programme Management System, including the functionalities that will be developed (in-scope) and those that are excluded (out-of-scope). This scope ensures the system remains focused on programme management, user access, approval workflows, and reporting.

1.5.1 In scope

Category	Description
User Management	<p>The system will provide role-based access for the following user groups:</p> <ul style="list-style-type: none">- Village Head (Ketua Kampung)- Village Committees (JKKK)- Resident- Guests <p>Functions include:</p> <ul style="list-style-type: none">- Account creation for Village Committees (JKKK) and Village Head (Ketua Kampung).- Role-based dashboard and interface display.- Basic profile management.
Programme Proposal Submission	<p>Village Committees (JKKK) can:</p> <ul style="list-style-type: none">- Create new programme proposals.- Fill in programme details such as objectives, category, venue, participants, and involvement.- Upload supporting documents (proposal files, reports, images, etc.). <p>Village Head (Ketua Kampung) can:</p> <ul style="list-style-type: none">- Approve submitted programme proposals.- Reject or return proposals for revision.- Add comments and feedback. <p>Guest users can:</p> <ul style="list-style-type: none">- Submit activity request forms without requiring an account.- Provide programme summary, items needed, preferred date and

	<p>time.</p> <ul style="list-style-type: none"> - The system will automatically generate a standardised proposal document for the approval workflow.
Approval Workflow	<p>The system includes an automated approval routing process:</p> <p>Default workflow:</p> <ol style="list-style-type: none"> 1. Village Committee (JKKK) 2. Village Head (Ketua Kampung) <p>Features:</p> <ul style="list-style-type: none"> - Village Head can approve, reject, or request changes. - Village Head can add remarks or comments at any stage. - Status tracking: Pending Review, Pending Approval, Approved, Rejected.
Notifications Alerts	<p>The system will send internal notifications for:</p> <ul style="list-style-type: none"> - New proposals submitted. - Approval requests. - Required changes. - Programme approved.
Activity & Audit Log	<p>The system will automatically log:</p> <ul style="list-style-type: none"> - Who submitted the proposal. - Who approved or rejected. - Timestamp of all actions. - Document uploads and updates.
Programme Report Submission	<p>After a programme is conducted:</p> <ul style="list-style-type: none"> - The Village Committees (JKKK) submit a programme report. - Report includes: <ul style="list-style-type: none"> - Event description and activities carried out. - Number of participants. - Photos, documents, and supporting files.
Dashboard	<p>a. Village Committees (JKKK) Dashboard</p> <ul style="list-style-type: none"> - View approval status. - View programmes conducted. <p>b. Village Head (Ketua Kampung) Dashboard</p> <ul style="list-style-type: none"> - Pending approvals. - Approved programmes. - Monthly programme summary. - Budget overview (income and expenses).

	<p>c. Resident & Guest Dashboard</p> <ul style="list-style-type: none"> - List of upcoming programmes. - Programme summary and details.
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1.5.2 Out of Scope

Category	Description
Financial Transactions	<ul style="list-style-type: none"> - Actual money transfer functions - Online payment gateway integration - Bank or invoicing system - Receipt or invoice generation
Full Event Management	<ul style="list-style-type: none"> - Attendance tracking - Resource allocation - Equipment booking - On-site task assignment
Organisation-Wide ERP Functions	<ul style="list-style-type: none"> - Inventory management - Procurement - Asset management - Full accounting functions

2.0 Methodology

The Digital Kampung System development followed Waterfall Methodology that is among the oldest and most common models of software development and waterfall methodology is linear and sequential, where a single step should be done, and only then one should proceed to the subsequent step. This is a systematic methodology that will guarantee that the entire requirements of the system are clearly established at the inception of the project, and as such it is applicable to projects where the objectives and documentation requirements are well established and established. The Waterfall Model applicable in the current project is made up of six (6) distinct phases namely: data collection, requirement analysis, design, development, testing and documentation.

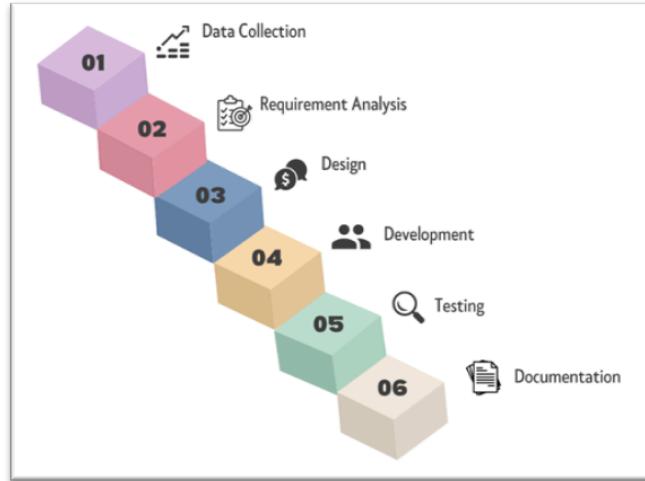


Figure 1.0: Flow of the Waterfall Methodology

In the initial phase, site visits were used to collect the relevant data and information at Kampung Tanah Merah, Jitra. The team was able to carry out a physical interview with two key informants during the site visit, and the key informants were Encik Azri bin Shuib, who is the acting Ketua Kampung and Encik Azri bin Shuib, who is the acting Biro Pendidikan. These interviews were

aimed at gaining firsthand information about the operations, problems and current workflow as far as the management of the village activities is concerned. A series of structured questions were also devised to direct the interview during the interview session, which addressed areas like process of proposing activities, the communication activities among members of Village Committees (JKKK), the process of approval, the number of community events, and the problems caused by the existing manual process of work. This interview has helped the team to learn that the village was using manual ways of communication, like WhatsApp, and verbal updates that continuously caused delays and inadequate tracking.

According to the results of the data collection stage, the second step was the requirement analysis where the requirements of the system were determined. The interview results indicated some fundamental issues, such as unsystematic platform to submit the working papers, time wasting in the process of approval as a result of manual communication processes, inability to monitor the status of programme proposals and no centralised area of storing the related papers. Based on these issues, the team came up with the following user requirement, which included the necessity to have a dedicated platform to post the proposals of activities, a faster and more transparent process of approving activities, a system that ensures a better organisation of all the proposal documents, and the status-checking system, as a result of which the AJK members would be able to monitor the progress of their submissions without having to constantly follow up on the progress of their submissions. Such requirements make sure that the system is created to address the real needs of the community and to allow having a better and more organised control of kampung activities.

During the system design phase, the system of Kampung Tanah Merah was planned to be structured and allow the functional flow of the system so that all the features required would be

workable in a clear, organised manner and easy to use. This stage was dedicated to the definition of interaction between each module of the system, like login, dashboard, programme registration, proposal submission, approval management and programme reporting. The design is such that users can find it easy to do the basic tasks of promoting their proposals, examine submissions, status checks and produce reports. The focus was made on simplicity, clarity of navigation, and clarity of functionality to make sure that members of the AJK and even the village head can easily and without challenges use the system even when they have limited technical knowledge.

During the development phase, the system was built on the approved design with each of the modules being implemented to meet the requirements established in the previous phase. This system was written in PHP because it is more appropriate when the dynamic web application is required and it has the capacity to meet the standards of the academic project. The front-end interface has been developed in HTML and CSS and so the layout of the interface is clean and accessible to all users and MySQL has been employed to host and handle programme-related data in a secure and efficient way. In the development process, every feature of the system, including the proposal submission, approval updates and report generation features, were coded, integrated and refined in the development process to enable a proper operation of the system and a consistent system with user requirements. The stage of the conceptual design was modified into a working web-based system that assists in the daily administrative operations of the village committee.

After the system prototype was ready, the testing stage was done to ensure that the system is functional and usable. The testing carried out was functional testing, where all the features, like login, proposal submission, update of approvals, and viewing of reports, were tested. The usability was also tested to determine the clarity of the interface and the ease of use. Also, the

most basic form of user acceptance testing (UAT) was conducted with the real representatives of villages to ensure that the system would fulfil their expectations and to ensure that the problems identified in the interview stage had been resolved.

Lastly, the documentation phase entailed the preparation of all written documents that help in the creation and utilisation of the system. This consists of the final project report, system description, and system interface screenshots. Documentation is used to provide reference when operating the system and make it clear to the system users what every module is about and how it works. Since the end product of the project is to provide the Village Committee (JKKK) and the Village Head (Ketua Kampung) with a fully functioning system which enables the entities to apply, manage and approve community activities more effectively, proper documentation would be used to ensure that the system is usable in the long term and can be enhanced in future.

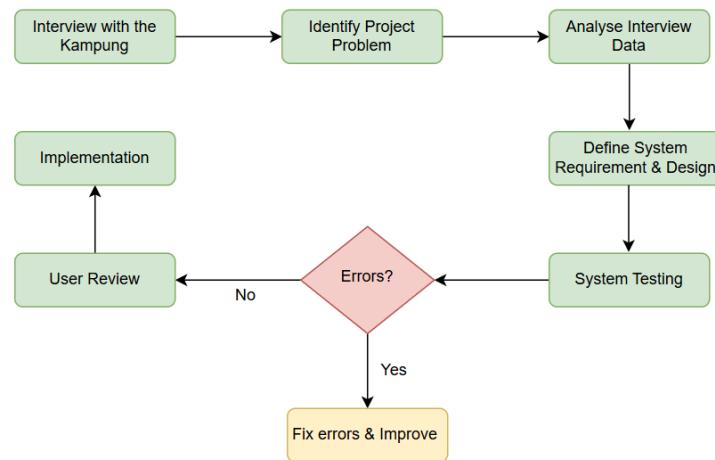


Figure 1.1: Flowchart of Process on Management System

In addition, development of the system consists of a qualitative research approach, where the development of the system was based on the real operational needs that have been identified through direct engagement with the Head of Village Kampung Tanah Merah, Mr Azdey. This choice of method was made to ensure that the proposed system aligns closely with the actual village needs and practices of the village organisation. Hence, the primary data used to develop this proposed system are semi-structured interviews with the Head of Village, along with one exco member of the village organisation. This method was chosen to allow in-depth exploration of the village's current condition, workflows and communicate a mutual outcome on the proposed system for both parties. Functional and non-functional requirements were identified and formed the basis of the proposed system. With that, a system was developed using a prototype-based development approach. To ensure the system usability, accuracy and effectiveness, user feedback was conducted with external parties, which includes project supervisor, Dr Rafeah.

In conclusion, the insights from the Head of Village have provided practical, relevant and user-centred solutions for the village administration management.

3.0 User Requirement

3.1 Functional Requirements

For Resident:	<p>The system shall allow residents to:</p> <ul style="list-style-type: none">- View approved upcoming programmes on the landing page without logging in.- View past programmes that have been completed in the community.- Access programme details, including date, time, venue, and organiser.- View public announcements shared by the committee or village head. <p>(Residents do not require login or register an account.)</p>
For Village Committee (JKKK):	<p>The system shall allow the Village Committee (JKKK) to:</p> <ul style="list-style-type: none">- Log in using committee-provided credentials.- Access a dashboard showing:<ul style="list-style-type: none">- List of programmes (draft, pending, approved, rejected)- Programme status summary- Budget usage chart- Create new programme proposals, including entering:<ul style="list-style-type: none">- Programme title, objectives, category, involvement- Venue, date, and expected participants.

	<ul style="list-style-type: none"> - Required items and estimated budget - Upload supporting documents (PDF, images, letters, etc.). - Save proposals as a draft or submit for approval. - View approval status, including comments from Secretary/Treasurer/Pengerusi. - Edit proposals before final approval. - Submit programme reports after the programme is conducted, including: <ul style="list-style-type: none"> - Event explanation - Number of participants - Photos - View the history of submitted programmes and their approval timeline.
For Village Head (Ketua Kampung):	<p>The system shall allow the Village Head (Ketua Kampung) to:</p> <ul style="list-style-type: none"> - Create user profile for the village committee. - Log in using admin-created credentials. - View all programme submissions from committee members. - Open proposal details, including documents and budget. - Approve, reject, or request changes for any proposal. - Add remarks or comments during the review process. - View guest activity requests submitted by external users. - Respond to external guest requests (approve/reject).

	<ul style="list-style-type: none"> - Track programme progress through approval stages. - Access dashboard analytics, including: <ul style="list-style-type: none"> - Pending approvals - Number of programmes conducted - Budget summary (income and expenses) - Reports submitted by Programme Directors
For Guest (External User):	<p>The system shall allow guests (public users) to:</p> <ul style="list-style-type: none"> - Access the system without creating an account. - Submit activity request forms, including: <ul style="list-style-type: none"> - Programme summary - Required items - Proposed date and time - The system shall auto-generate a standard proposal to enter the approval workflow.

3.2 Non-Functional Requirements

1. Security	<ul style="list-style-type: none">- The system shall encrypt all user passwords.- The system shall restrict access using role-based access control (RBAC).- Only authenticated users may access committee or village head modules.- Sensitive operations (approval, edits) must require login.
2. Usability	<ul style="list-style-type: none">- The interface shall be simple and easy to navigate for non-technical village users.- Buttons, forms, and menus shall be labelled clearly.
3. Availability	<ul style="list-style-type: none">- The system shall be accessible 24/7 as a web-based platform.- Users can access the system from any location with internet access.- System downtime shall be minimised except for scheduled maintenance.

4.0 System Design

4.1 System Architecture

The system follows a **three-tier architecture** to ensure scalability, security, and maintainability.

The architecture consists of:

Architecture Overview: Users → Web Interface → Application Server → Database

1. Users

- Includes **AJK members, Ketua Kampung, and Guests.**
- Interact with the system through browsers to access dashboards, forms, and reports.
- Role-based access control ensures that each user can only access functionalities and data appropriate to their role.

2. Web Interface

- Built using **HTML, CSS, and PHP.**
- Provides interactive pages, such as login, programme registration, approval, and reporting.
- Ensures **responsive and user-friendly interfaces** for different roles.

3. Application Server

- **PHP scripts** process user requests, validate inputs, and implement business logic.
- Handles workflows such as programme submission, approval routing, and status tracking.
- Communicates with the database to fetch or update data.

4. Database Layer

- MySQL stores all persistent data, which includes user accounts, programme proposals, approvals, and reports.
- Ensures data integrity, consistency, and easy retrieval for reporting and analytics.

(Chiaramonte, 2025)

Data Flow Example

1. User submits a programme proposal via the **web interface**.
2. The **PHP application server** validates data and saves it to the **MySQL database**.
3. Ketua Kampung logs in, views the proposal, and approves or rejects it.
4. The updated status is reflected back on the **user dashboard** in real time.

4.1.1 Context Data Flow Diagram (DFD)

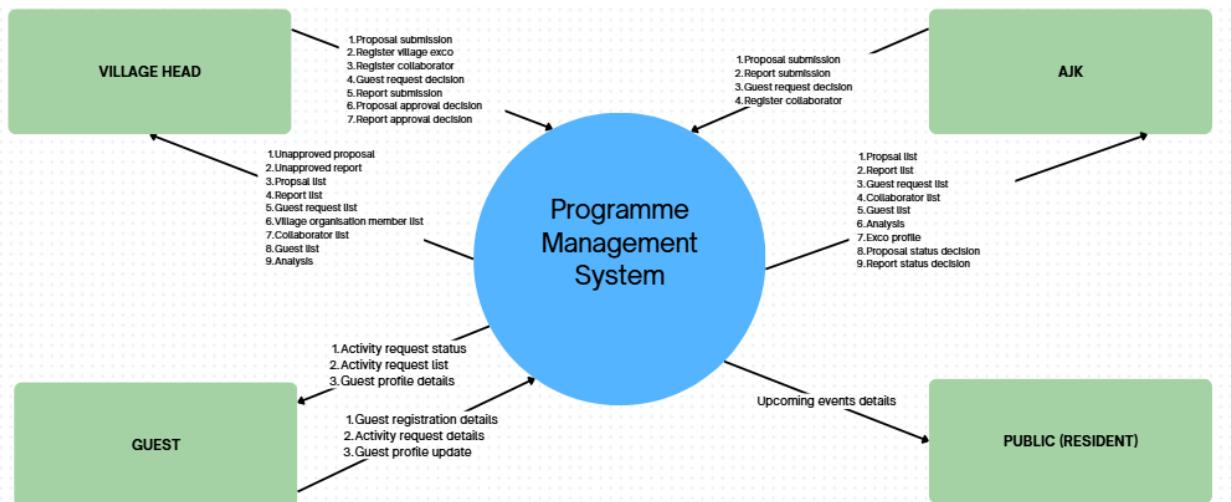


Figure 2.0: Context Data Flow Diagram (DFD)

4.1.2 Data Flow Diagram (DFD) Level 1

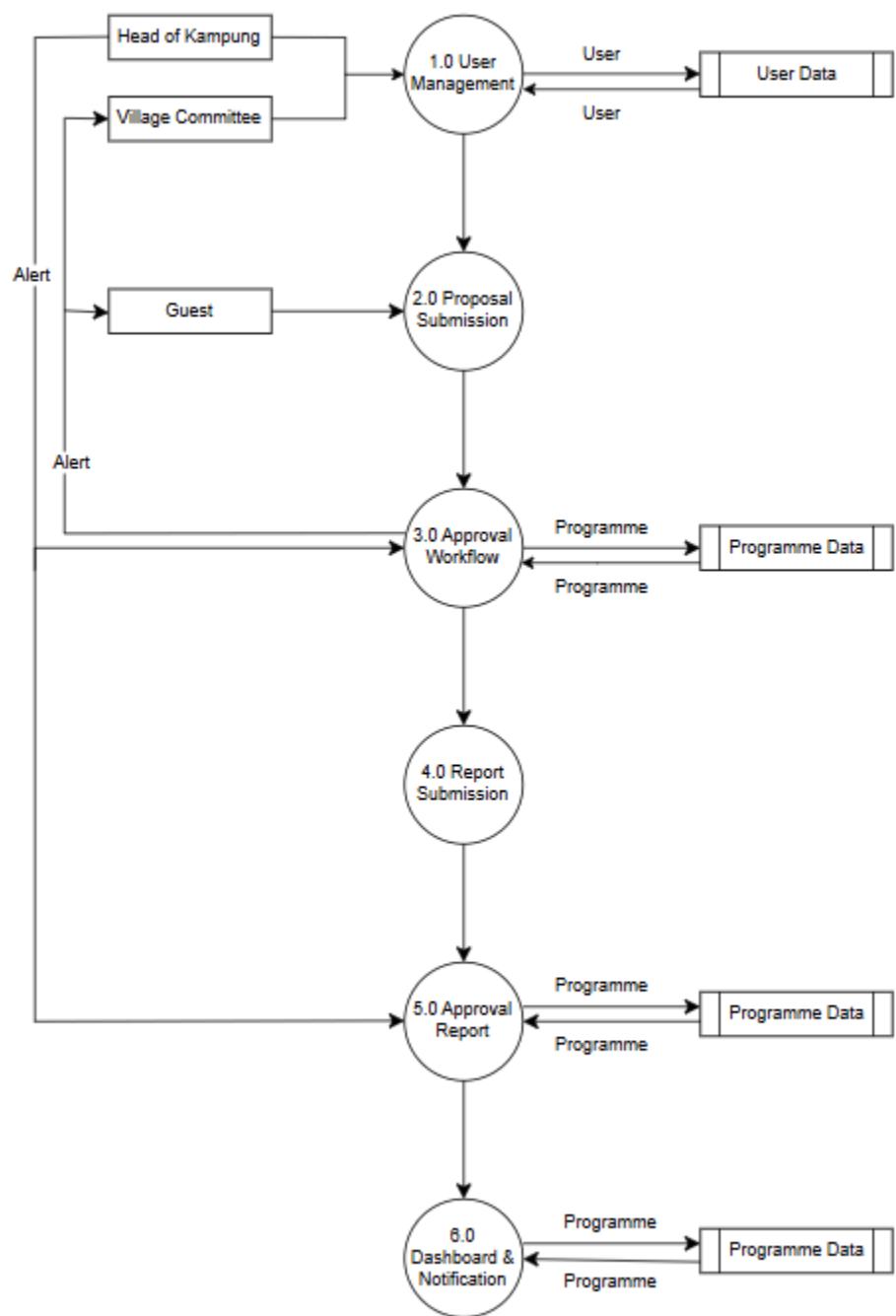


Figure 2.1: Data Flow Diagram (Level 1)

4.1.3 Entity Relationship Diagram

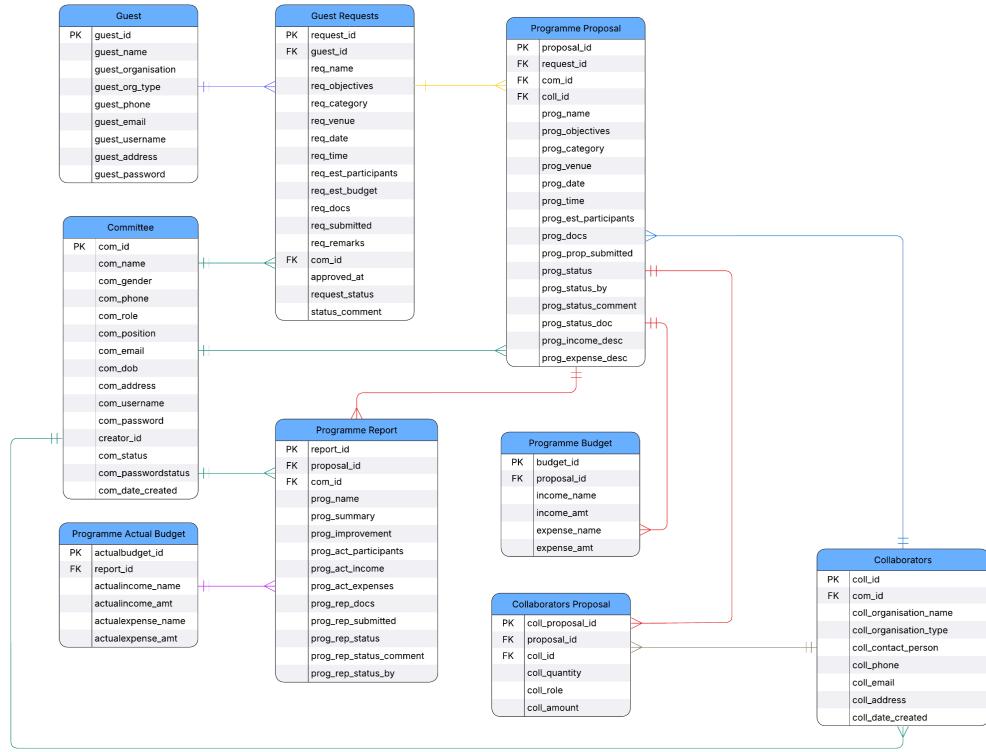


Figure 2.2: Entity Relationship Diagram

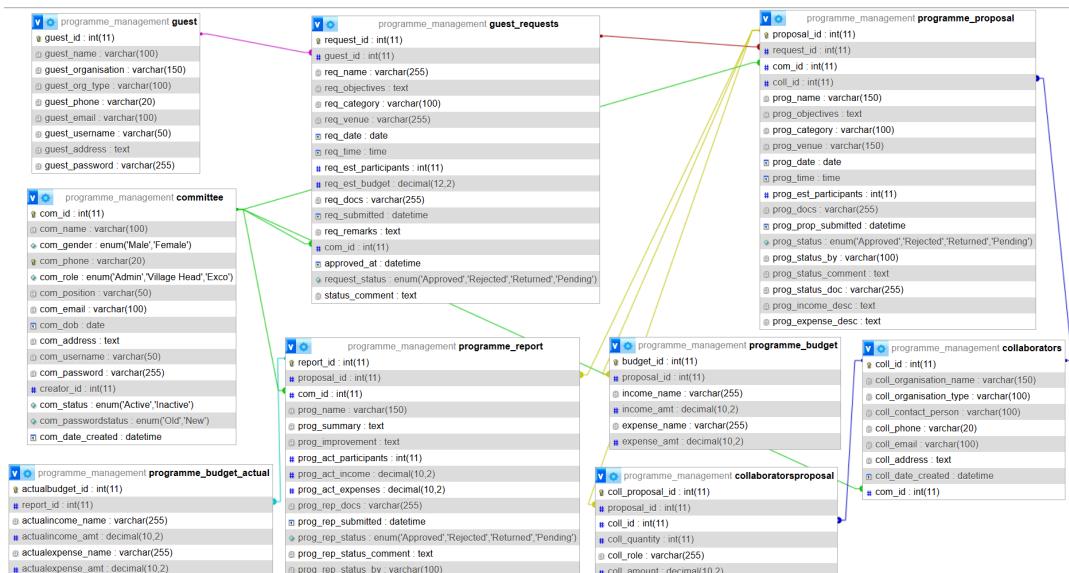


Figure 2.3: PHPMyAdmin Designer

4.2 Technologies Used

4.2.1 PHP (Hypertext Preprocessor)

(a) **Role:** Server-side scripting language for backend development.

(b) **Purpose in the system:**

- Processes user requests, such as login authentication, programme submission, and profile updates.
- Implements **business logic**, including:
 - Role-based access control (Admin, Village Committee (JKKK), Village Head (Ketua Kampung), Guests).
 - Approval workflow routing and status updates.
 - Notifications for pending approvals or programme changes.
- Handles form validations, ensuring all required data is submitted correctly before saving to the database.
- Dynamically generates web pages, dashboards, and reports based on user roles and data stored in MySQL.
- Communicates securely with the MySQL database.
(W3Schools.com, n.d.)

4.2.2 MySQL Database

(a) **Role:** Relational database management system (RDBMS) for centralised data storage.

(b) **Purpose in the system:**

- Centralised storage of all system data:
 - User accounts, including roles and personal details.

- Programme proposals, approvals, and activity logs.
- Reports and budget records.
- Maintains **data integrity and consistency** through relational tables, primary keys, and foreign keys.
- Supports **complex queries** to generate reports, track approval statuses, and filter programmes by date, status, or category.
- Provides **efficient retrieval and updates** to ensure real-time dashboards and accurate reporting.

(Erickson, 2024)

4.2.3 NetBeans IDE

(a) **Role:** Integrated development environment for PHP and MySQL development.

(b) **Purpose in the system:**

- Provides **code completion, debugging tools, and project management** features, enhancing development speed and reducing errors.
- Simplifies **database connectivity** with MySQL, allowing easy testing of queries and stored procedures. (Benny, 2016)
- Supports PHP code organisation following **MVC (Model-View-Controller) architecture**, separating business logic, data handling, and interface presentation.
 - **Model** → Handles **data and database interactions**.
 - **View** → Handles **what the user sees**.
 - **Controller** → Handles **business logic and user requests**.

4.2.4 Web Technologies (HTML, CSS, JavaScript)

(a) Role: Frontend technologies for building interactive user interfaces.

(b) Purpose in the system:

- **HTML:** Structures pages for login, dashboards, programme registration, approvals, and reports.
- **CSS:** Styles the web pages for a clean, professional, and user-friendly interface.
- **JavaScript:** Adds interactivity and dynamic features, such as:
 - Calendar views for programmes.
 - Form validations on the client-side.
 - Real-time status updates without refreshing pages. (Ted, 2024)

5.0 Feasibility Analysis

The feasibility study evaluates the viability and practicality of creating and executing the suggested Digital Kampung System for the Kampung Tanah Merah regarding their activities management. The project is assessed in this analysis regarding the technical, operational, financial, and schedule viability aspects.

5.1 Technical Feasibility

Technical Feasibility assists in determining whether the proposed system can be successfully developed with the current available and acquireable technology in the market.

Factor	Assessment	Reasoning
Technology Availability	Highly Feasible	The system is being developed using established technologies which utilize programming languages and databases such as HTML, PHP, CSS & MySQL. These tools are widely utilized, stable, and suitable for developing the system's dynamic web applications.
System Complexity	Moderately Feasible	The scope of the system is clearly defined and controllable, including User Management, Program Proposal Submission, Approval Workflow, Notifications, and Reporting. The primary challenge is making sure the real-time status tracking and structured approval routing operate dependably, which is possible with the chosen technology stack.
Environment Infrastructure	Feasible	Despite the fact that Kampung Tanah Merah is a rural village, the implementation only needs standard devices (computers, smartphones) and basic internet access, which the committee

		members (AJK) already frequently use for informal communication (WhatsApp).
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Overall, regarding the technicality of this project, it is achievable with the current market of available technology, and the system can be developed while facing moderate challenges regarding the scope of the system and ensuring the real-time tracking status and structured approval. The development of the system also considered the environmental infrastructure, where only common necessities are required, which are standard devices and basic internet access, which are very common nowadays.

5.2 Operational Feasibility

The Operational Feasibility aims to evaluate how well the proposed system can solve the current problems and how the end-users all adapt to it.

Factor	Assessment	Reasoning
Problem Resolution	Highly Feasible	The unsystematic application, lack of transparency, and ineffective approval workflow are the issues that the system directly addresses. The system will greatly simplify operations by centralising the application and submission process and offering real-time status tracking.
User Acceptance	Feasible	The Village Head and the committee members (AJK) are currently handling procedures by hand, which can be frustrating. Given the village's apparent strong sense of community and involvement, a user-friendly digital system that is clear and simple to use is likely to be accepted. To make sure the system satisfies their needs, the methodology includes basic

		User Acceptance Testing (UAT) with actual representatives.
Integration	Highly Feasible	The system is an independent platform for managing information. There is no need for complicated integration with legacy systems because it is replacing current manual/informal processes (WhatsApp, paper).

The project is expected to be well-received by the head village and village committee members and is operationally feasible because it offers a clear and essential solution to the present administrative problems.

5.3 Economic Feasibility

The financial feasibility evaluates whether the advantages of the suggested system exceed its drawbacks. Since this is an academic project, the emphasis is on development effort (cost) as opposed to efficiency and improved documentation (benefit).

Factor	Assessment	Reasoning
Development Cost	Low	The main expense of this academic project, which was created by a student team, is the developers' time and effort. Because open-source technologies (PHP, MySQL, HTML/CSS) are used, the financial costs of software licenses are minimal.
Maintenance Cost	Low	The scope is sustainable for the village because it specifically excludes complex functions like financial transactions and external integrations, requiring little long-term maintenance for bug fixes and minor updates.
Tangible Benefits	Moderate	By doing away with manual follow-ups, lost document searches, and manual reporting, the system will save committee members a great deal of time. Increased productivity results from this.
Intangible Benefits	High	The biggest advantages are intangible: better decision-making for upcoming village activities, better record-keeping of accomplishments and participation lists, and increased transparency (Objective 2).

Because the effort investment results in significant, long-term benefits in organizational efficiency and documentation for the Village Committees with negligible associated financial costs, the project is economically feasible.

5.4 Schedule Feasibility

Schedule feasibility evaluates whether the project can be finished in the allotted time. The Waterfall Methodology, which is based on a methodical and sequential approach, has been implemented.

Factor	Assessment	Reasoning
Methodology	Feasible	With distinct phases (Data Collection, Requirement Analysis, Design, Development, Testing, Documentation), the Waterfall Model is methodical. This methodical approach guarantees that all requirements are addressed early on and aids in the efficient management of the project timeline.
Requirement Stability	Highly Feasible	The requirements (Objectives 1, 2, 3, and the Scope) are perfect for the Waterfall approach because they are well-defined and derived from extensive initial data collection (interviews with Encik Azri bin Shuib). As a result, scope creep and significant changes later in the development cycle are less likely.
Timeline Management	Feasible	The chosen methodology's sequential design makes it simple to monitor progress in relation to each phase's scheduled deadlines, guaranteeing that the final documentation and delivery can be finished on schedule.

The adoption of a structured methodology and the stability of the system requirements make the project feasible within the academic timeframe. It is highly recommended that the proposed Digital Kampung System be developed and implemented in order to modernise the Village

Committees' administrative procedures, as it is highly feasible from a technical, operational, economic, and scheduling standpoint.

6.0 Findings

6.1 Testing- Usability Test

Test Case ID	Module	Test Description	Input	Expected Result	Actual Result	Status
TC-001	Login	Verify login with valid credentials.	Username: puad Password: puad1	System authenticates the user and redirects to the dashboard.	User authenticated and redirected successfully.	PASS
TC-002	Login	Verify login with invalid credentials.	Username: puad Password: wrongpassword	System displays error message and denied access.	Access denied and error message displayed.	PASS
TC-003	Programme Management	View programme list.	Click “Senarai Program”	System displays list of submitted programmes .	Programme list displayed correctly	PASS

TC-004	Programme Management	Filter programme by status.	Select status: Approved	System displays programmes with selected status only	Filter applied successfully.	PASS
TC-005	Programme Proposal	Submit a new programme proposal.	Fill proposal form and click submit	System saves proposal and sets status to Pending	Proposal submitted and stored successfully.	PASS
TC-006	Proposal Approval	Approve programme proposal.	Select “Approve” and submit a decision.	Programme status updated to Approved.	Status updates correctly with remarks saved.	PASS
TC-007	Proposal Approval	Reject programme proposal.	Select “Reject” with a comment.	Programme status updated to Rejected.	Status updated correctly with remarks saved.	PASS
TC-008	Committee Management	Register new committee members.	Fill the registration form and submit.	System creates a new committee account.	Committee account created successfully.	PASS
TC-009	Committee Management	View committee list.	Click “Senarai AJK”.	System displays registered	Committee list displayed correctly.	PASS

				committee members.		
TC-010	Guest Management	View guest list.	Click “Senarai Tetamu”.	System displays registered guests	Guest list displayed correctly	PASS
TC-011	Guest Activity	Approve guest activity requests.	Select “Terima”.	Application status updated to Approved.	Status updated correctly	PASS
TC-012	Collaborator Management	Register new collaborators.	Fill collaborator form and submit.	System saves collaborator information.	Collaborator registered successfully.	PASS
TC-013	Collaborator Management	Update collaborator information.	Click “Kemas Kini” and save changes.	System updates collaborator record.	Information updated successfully	PASS
TC-014	Profile Management	Update committee profile.	Edit profile details and save.	System updates personal information.	Profile updated successfully	PASS

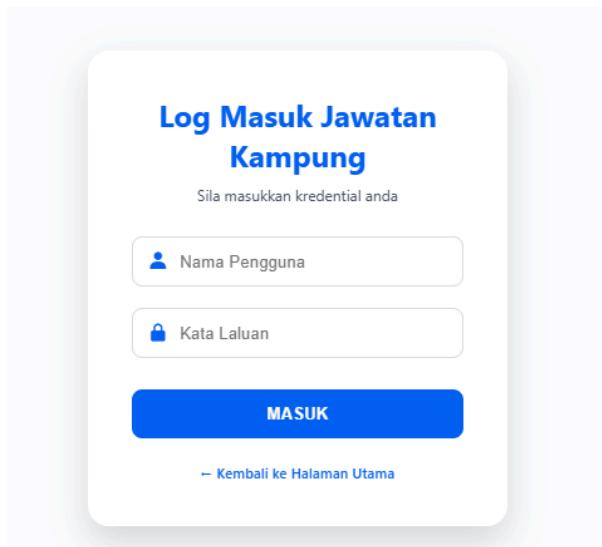
Based on the functional testing conducted, all modules of the Programme Management System functioned as intended. The system successfully validated user inputs, enforced role-based access control, and executed key operations such as proposal submission, approval workflows,

and data management. No critical errors were detected during testing, indicating that the system is stable, usable, and ready for deployment.

6.2 System Impact

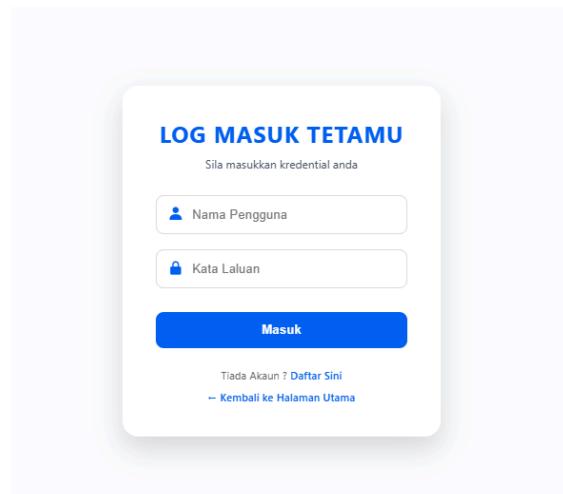
6.2.1 User Verification

6.2.1.1 Log In Page



The image shows a login page titled "Log Masuk Jawatan Kampung". The title is centered at the top in a large blue font. Below it, a smaller instruction "Sila masukkan kredensial anda" is displayed. There are two input fields: one for "Nama Pengguna" (User Name) and one for "Kata Laluan" (Password), both with placeholder text and icons. A large blue "MASUK" button is positioned below the inputs. At the bottom, there is a link "– Kembali ke Halaman Utama" (Back to Home Page).

Figure 3.0: Log in page for Village Head and Committee



The image shows a login page titled "LOG MASUK TETAMU". The title is centered at the top in a large blue font. Below it, a smaller instruction "Sila masukkan kredensial anda" is displayed. There are two input fields: one for "Nama Pengguna" (User Name) and one for "Kata Laluan" (Password), both with placeholder text and icons. A large blue "Masuk" button is positioned below the inputs. At the bottom, there are links for "Tiada Akaun ? Daftar Sini" (No account? Sign up here) and "– Kembali ke Halaman Utama" (Back to Home Page).

Figure 3.1 : Log in page for Guest

6.2.1.2 Invalid Login Alert Page

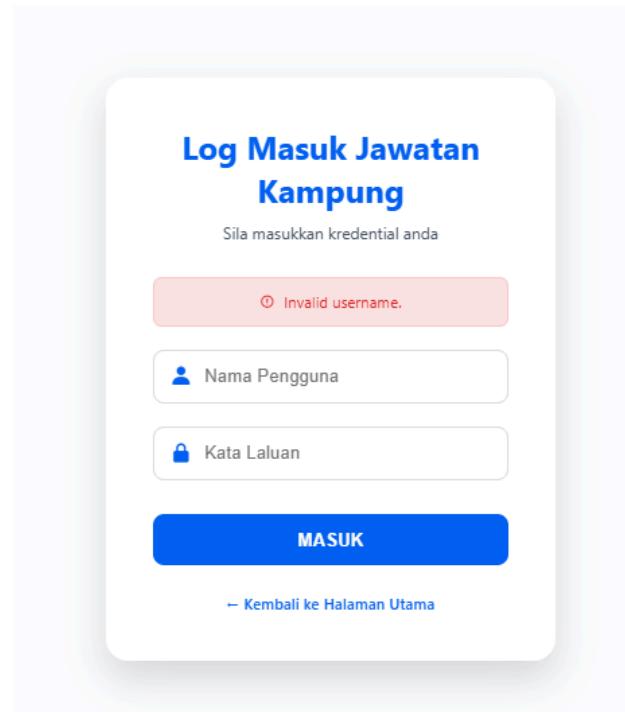


Figure 3.2: Invalid Login Alert on the Village Committee Login Page

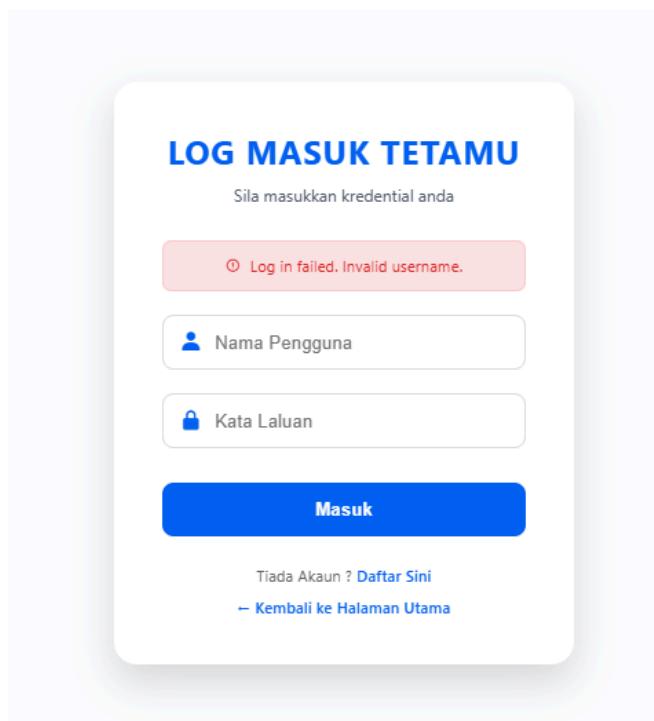


Figure 3.3: Invalid Login Alert on the Guest Login Page

User verification in the Kampung Programme Management System begins at the login page, where users are required to enter their registered username and password. This initial step ensures that only authorized individuals are able to access the system.

When the user submits the login form, the system first checks whether all required fields are filled in. The entered credentials are then compared with the user records stored in the database. If the username does not exist or the password does not match, the system denies access and displays an error message. This prevents unauthorized users from entering the system and protects sensitive programme data.

If the login details are valid, the system proceeds to verify the user's role, such as Ketua Kampung, Committee Member (AJK), or Guest. This role information is retrieved from the

database and stored in a session. The session allows the system to recognize the user across different pages without requiring repeated logins.

Based on the verified role, the system automatically redirects the user to the appropriate dashboard. Each dashboard is designed with role-based access control, meaning users can only view and perform actions that are relevant to their responsibilities. For example, the Village Head can approve programmes, while committee members and guests have more limited access.

To further strengthen security, every restricted page includes a session validation check. If the session is missing, expired, or invalid, the user will be redirected back to the login page. This ensures that system access is strictly controlled throughout the entire usage session. Overall, the user verification process follows a clear step-by-step logic: login validation, role verification, session management, and controlled access which enhances system security.

6.2.2 Dashboard

6.2.2.1 Resident Dashboard

The screenshot displays the Resident Dashboard interface. At the top, there is a header with the text "Hello Penduduk" and a yellow hand icon, followed by two buttons: "Jawatan Kampung" and "Tetamu". Below the header, a message says "Apa aktiviti kita hari ini?". The main area features a calendar for January 2026. The days of the week are labeled: Ahad, Isn, Sel, Rab, Kha, Jum, Sab. The dates are arranged in rows: Row 1 (4, 5, 6, 7, 8, 9, 10); Row 2 (11, 12, 13, 14, 15, 16, 17); Row 3 (18, 19, 20, 21, 22, 23, 24); Row 4 (25, 26, 27, 28, 29, 30, 31). The date "25" is highlighted with a blue circle and a small orange dot. To the right of the calendar, there is a sidebar titled "Akan Datang" (Coming Soon) which lists four events with their dates and names:

- 25 Jan 2026 Latihan Kebakaran
- 03 Apr 2026 Program Latihan Kecemasan First Aid
- 01 May 2026 Gotong Royong
- 06 Jun 2026 Sukan Bendang 1.0

Figure 4.0: Resident Dashboard

When users access the Kampung Programme Management System, they are first directed to the **resident dashboard interface**, which serves as the main entry point for all residents and visitors. No login is required at this stage.

On the top-right corner of the dashboard, there are two buttons. The “**Jawatan Kampung**” button is for Village Head and Committee (AJK) log in, while the “**Tetamu**” button is for Guest log in. Residents can browse the dashboard without logging in. Users who are committee members or guests can click the respective button to access their secured accounts.

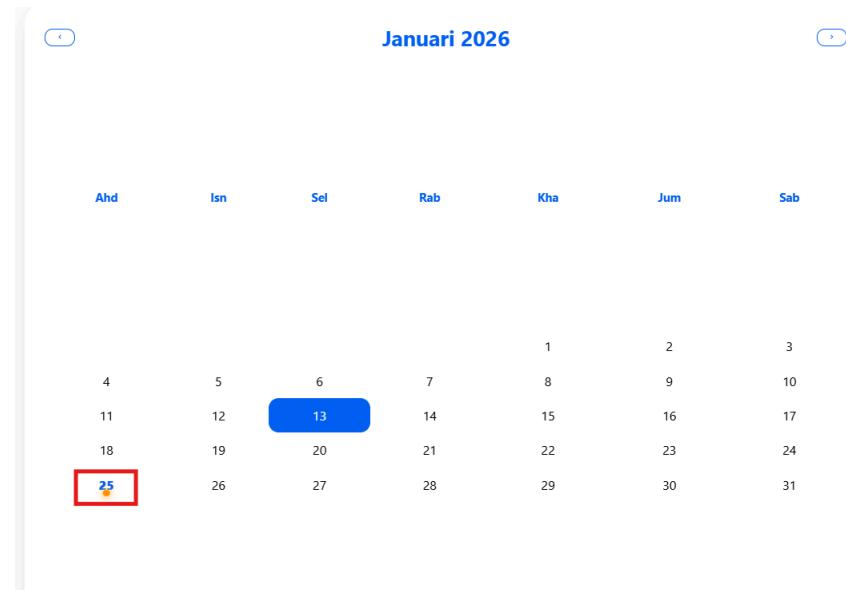


Figure 4.1: Dates with upcoming activities are marked with an orange dot.

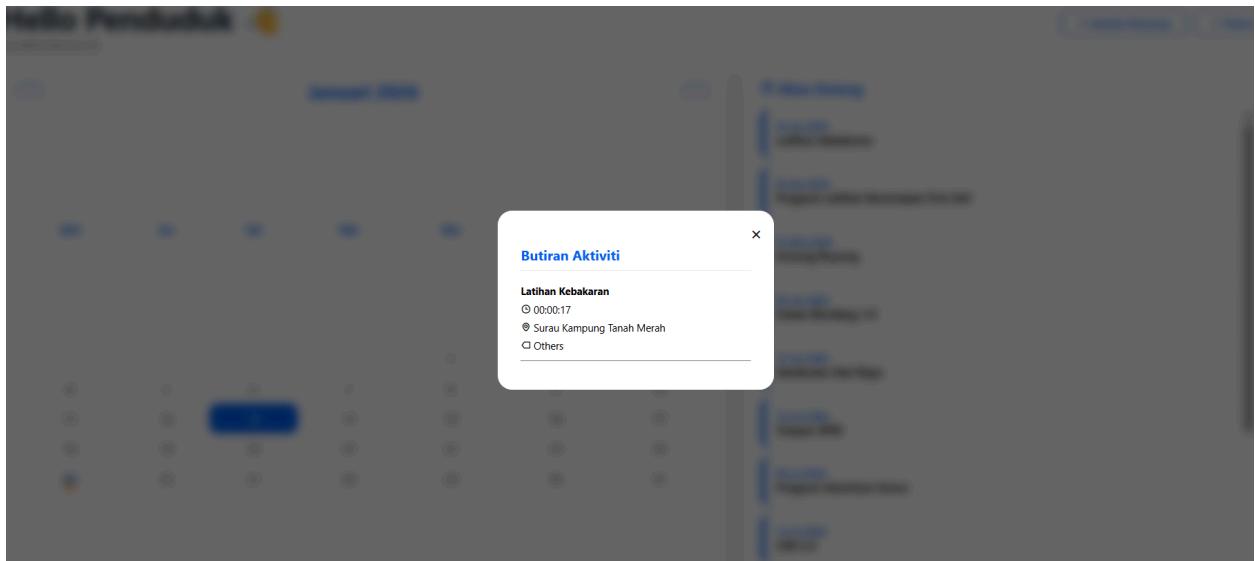


Figure 4.2: Clicking on a date displays the scheduled activities for that day.

The calendar is displayed on the left side of the dashboard. It shows a month view with all programme dates. Dates with scheduled activities are marked with a small orange dot. This allows users to quickly identify days that have events. Users can click on a date with an orange dot to see all activities scheduled for that day.

On the right side, a list of upcoming activities is shown. It corresponds to the selected date on the calendar. Each entry displays the programme name and date. Users can scroll through the list to review all upcoming events. They can also select another date from the calendar.

This design allows residents to interactively track programme schedules. It ensures they stay informed of upcoming activities while keeping the interface intuitive and visually clear.

This dashboard design allows residents to **interactively track programme schedules**, ensuring they never miss upcoming events while keeping the interface intuitive and visually clear.

6.2.2.2 Village Head Dashboard

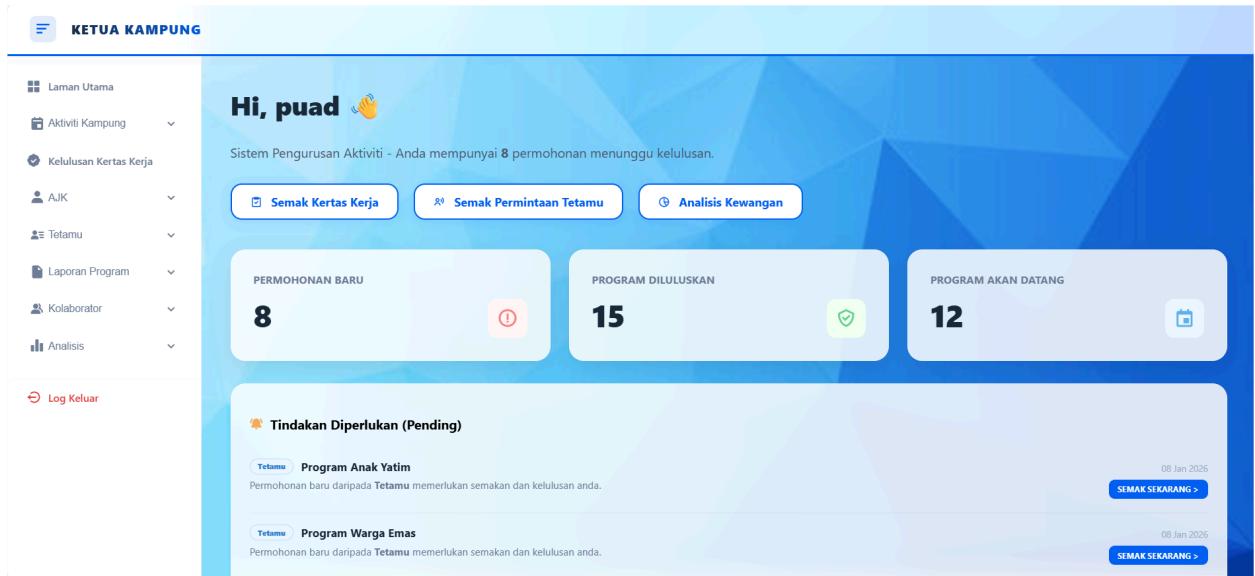


Figure 4.3: Village Head Dashboard

After logging in, the Village Head is directed to their personalized dashboard. This serves as the central hub for managing village activities and requests. The dashboard features a left-side navigation bar. It provides access to all main sections, including the main page, village activities, proposal approvals, committee management, guest management, programme reports, collaborators, analytical reports, and the log out function.

At the top of the dashboard, a greeting displays the Village Head's name. It also provides an overview of pending requests, giving immediate awareness of tasks that require attention. Below this, action shortcuts allow quick access to reviewing proposals, checking guest requests, analyzing financial insights, and managing newly submitted applications.

The dashboard also includes summary cards that display key statistics. These show the number of approved programs, upcoming programs, and pending actions. This allows the Village Head to monitor program status and priorities at a glance.

In addition, the dashboard lists the most recent submissions from both guests and committee members. Each entry highlights requests that require review and approval. It clearly shows the type of request, the submission date, and includes a button to review the request immediately.

Overall, the Village Head Dashboard is designed to provide a clear and organized interface. It allows efficient monitoring, decision-making, and management of all village activities. This ensures that important tasks are addressed promptly and systematically.

6.2.2.3 Village Committee Dashboard

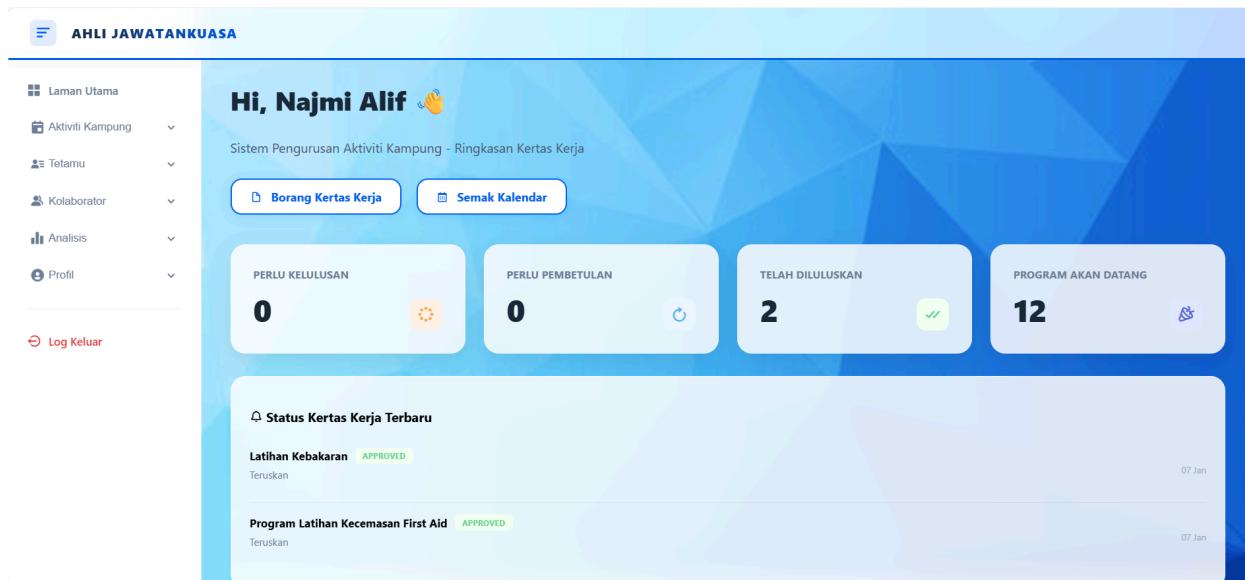


Figure 4.4: Village Committee Dashboard

The Village Committee dashboard provides an overview of the Kampung Activity Management System. At the top, the navigation bar includes links to **Home**, **Village Activities**, **Guests**, **Collaborators**, **Analytics**, **Profile**, and **Log Out**. This gives committee members quick access to key sections of the system.

The main dashboard area begins with a greeting to the logged-in committee member. It displays a summary of work related to activity proposals, showing the number of proposals that **require approval**, **need revision**, and those that have been **approved**, along with the count of upcoming programmes.

Below the summary, the dashboard lists recent proposal statuses. Each entry shows the programme name, current approval status, and the date submitted. Action buttons allow committee members to continue reviewing or processing each proposal.

This design ensures that committee members have a clear and immediate view of pending tasks and upcoming activities. It facilitates efficient management of village programmes.

6.2.2.4 Guest Dashboard

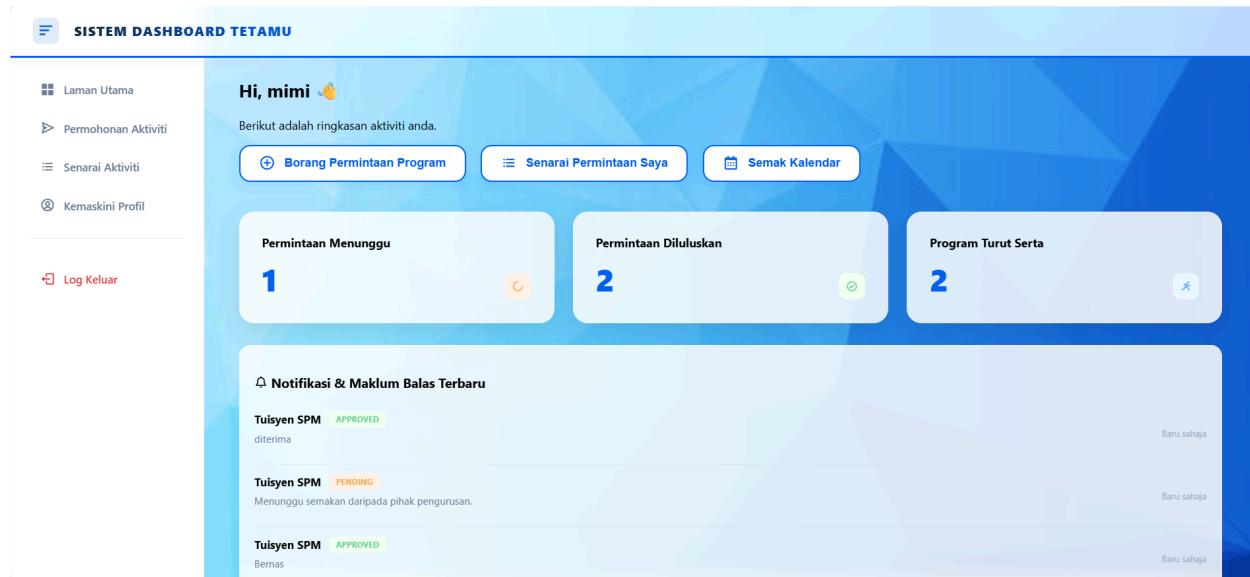


Figure 4.5: Guest Dashboard

The Guest Dashboard provides an overview of the Kampung Activity Management System for registered guests. The top navigation bar includes links to **Home**, **Activity Requests**, **Activity List**, **Profile Update**, and **Log Out**, giving guests easy access to relevant sections of the system.

Upon logging in, the dashboard greets the guest by name and displays a summary of their activities. This includes the number of **pending requests**, **approved requests**, and **programmes they are participating in**.

Below the summary, recent notifications and feedback are listed. Each entry shows the programme name, its current status, and any relevant messages from the management. Guests

can review their activity requests and see which ones are awaiting approval or have been accepted.

This design ensures that guests can easily monitor their programme involvement, track pending approvals, and stay informed about the latest updates.

6.2.3 Committee Management

6.2.3.1 Programme List Page

Nama Program	Tarikh	Lokasi	Status	Tindakan
Seminar SPM	14/11/2026	Surau Kampung Tanah Merah	PENDING	<button>Lihat</button>
Bengkel Matematik	15/09/2026	Surau Kampung Tanah Merah	APPROVED	<button>Lihat</button> <button>Selesai</button>
Sambutan Kemerdekaan	30/08/2026	Kawasan Sekitar Kampung	APPROVED	<button>Lihat</button> <button>Selesai</button>
Pemasangan Bendera Malaysia	27/08/2026	Kawasan Sekitar Kampung	APPROVED	<button>Lihat</button> <button>Selesai</button>
Karnival Hari Keusahawanan	07/08/2026	Surau Kampung Tanah Merah	APPROVED	<button>Lihat</button> <button>Selesai</button>
CSR 2.0	14/07/2026	Surau Kampung Tanah Merah	APPROVED	<button>Lihat</button> <button>Selesai</button>

Figure 5.0: Programme List Page

This page displays a complete list of village programmes submitted and managed under the Programme Management System. After the Committee clicks “**Senarai Program**” from the dashboard menu, the system presents all programmes along with key information such as programme name, date, location, and current approval status.

The Committee can **filter programmes by status** (Pending, Approved, Returned, or Rejected) using the filter function, allowing efficient monitoring and review of programme progress. A search bar is also provided to quickly locate specific programmes by name.

By clicking the “**Lihat**” button, the Committee can access detailed information about a selected programme, including objectives, committee members involved, and implementation details. This function supports effective oversight, transparency, and informed decision-making in managing village programmes.

6.2.3.2 Programme Proposal Submission Form

The screenshot shows a web-based application for programme proposal submission. The header "AHLI JAWATANKUASA" is visible. On the left, a sidebar menu includes "Laman Utama", "Aktiviti Kampung", "Tetamu", "Kolaborator", "Analisis", "Profil", and "Log Keluar". The main content area is titled "Borang Kertas Kerja" and contains fields for "Nama Program" (with placeholder "Contoh: Gotong Royong Perdana"), "Objektif" (with placeholder "Nyatakan objektif utama program..."), "Kategori" (a dropdown menu with placeholder "-- Pilih Kategori --"), "Tempat" (with placeholder "Contoh: Dewan Serbaguna"), "Tarikh" (a date input field "dd/mm/yyyy" with a calendar icon), "Masa" (a time input field "-- : --" with a clock icon), and "Anggaran Peserta".

Figure 5.1: Programme Proposal Submission Form

This page is used to **submit a programme proposal** after the Committee clicks “**Borang Kertas Kerja**” from the menu. The form allows users to enter complete programme information, including the programme name, objectives, category, location, date, and time. By standardising the proposal submission process, this page ensures that all required information is properly

documented before the programme is reviewed for approval. The structured form helps improve clarity, consistency, and efficiency in evaluating proposed village programmes, while reducing errors and incomplete submissions.

6.2.3.3 Guest List Page

ID	PEGAWAI PENYELARAS	NAMA ORGANISASI	KATEGORI	MAKLUMAT HUBUNGI	ALAMAT
#4	Hairudin	Yayasan Peneraju	NGO	123456 din@gmail.com	Jitra
#1	mimi	mada	plantation	90909090 mimi@gmail.com	jfpqoqwihfnoqweknfoei
#2	Najmi	UUM	University	123 najmi@gmail.com	Kedah
#3	qoi	SADA	air	34213421 sada@gmail.com	sa

Figure 5.2: Guest List Page

This page displays a **list of registered guests** involved in village programmes. It presents key information such as the **contact person**, organisation name, category (e.g. NGO, university, private sector), contact details, and address.

The search function allows the Committee to efficiently locate specific registered guests or organisations by name. By maintaining a structured and up-to-date record of external parties, this page supports effective collaboration management, enhances communication, and strengthens stakeholder engagement in the implementation of village programmes.

6.2.3.4 Guest Activity Application List Page

Nama Program	Tarikh Perlaksanaan	Status	Tindakan
Program Anak Yatim	2026-06-15	Pending	<input type="button" value="Lihat"/> <input type="button" value="Terima"/> <input type="button" value="Tolak"/>
Program Warga Emas	2026-04-01	Pending	<input type="button" value="Lihat"/> <input type="button" value="Terima"/> <input type="button" value="Tolak"/>
CSR 3.0	2026-11-20	Pending	<input type="button" value="Lihat"/> <input type="button" value="Terima"/> <input type="button" value="Tolak"/>
CSR 2.0	2026-07-14	Approved	<input type="button" value="Lihat"/>
CSR	2026-04-14	Pending	<input type="button" value="Lihat"/> <input type="button" value="Terima"/> <input type="button" value="Tolak"/>
Tuisyen SPM	2026-06-16	Approved	<input type="button" value="Lihat"/>

Figure 5.3: Guest Activity Application List Page

This page displays a list of **guest activity applications** submitted by registered guest for participation in village programmes. It shows essential information such as programme name, implementation date, application status, and available actions.

The Village Head can **filter applications by status** (Pending, Approved, or Rejected) and search for specific programmes by name. By selecting the “**Lihat**” button, detailed information about the guest activity application can be reviewed. The Village Head may then take appropriate action by **approving or rejecting** the application, ensuring a structured and transparent approval process for guest involvement in village activities.

6.2.3.5 Collaborator Registration Page

The screenshot shows a web-based application interface. At the top left is a logo with the text 'AHLI JAWATANKUASA'. A vertical sidebar on the left contains navigation links: 'Laman Utama', 'Aktiviti Kampung', 'Tetamu', 'Kolaborator' (with 'Daftar Kolaborator' highlighted), 'Senarai Kolaborator', 'Kemaskini Kolaborator', 'Analisis', 'Profil', and 'Log Keluar'. The main content area has a blue header with the text 'Daftar Kolaborator'. Below this are several input fields with placeholder text: 'Nama Organisasi' (Contoh: Koperasi Kampung Jaya), 'Jenis Organisasi' (Contoh: NGO / Kerajaan / Swasta), 'Pegawai Penyelaras (PIC)' (Nama penuh pegawai), 'No. Telefon' (Contoh: 0123456789), 'Emel Pegawai/Organisasi' (emei@organisasi.com), and 'Alamat Organisasi'.

Figure 5.4 : Collaborator Registration Page

This page is used to **register external collaborators** involved in village programmes. It allows the Committee to record essential information such as organisation name, organisation type (e.g. NGO, government agency, private sector), contact person, contact number, email address, and organisation address.

By centralising collaborator information, this page ensures systematic record-keeping and supports effective coordination with external organisations. The structured registration process enhances transparency, improves communication, and facilitates long-term collaboration in the implementation of village programmes.

6.2.3.6 Collaborator List Page

No	Nama Organisasi	Jenis	Pegawai Penyelaras	Telefon	Emel
1	Ø Pusat Tuisyen Ahmad	Institut	Natasha	644654654	tasha@mail
2	Ø UUM	Universiti	Sofiya	464484646	soffya@uum.com
3	Ø JKM	Kerajaan	Jamel	6876876	jamal@jkm.com
4	Ø KBS Kedah	Kerajaan	Hasrul	4646314	hasul@kbs.com
5	Ø USM	Universiti	Hakim	78945	hakim.usm@gmail
6	Ø Green Earth NGO	NGO	Ahmad Zaki	0123456789	contact@greenearth.org

Figure 5.5: Collaborator List Page

This page displays a **list of registered collaborators** involved in village programmes. It presents essential information such as organisation name, organisation type, contact person, contact number, and email address.

The centralised listing enables the Committee to easily review and manage collaborating organisations, ensuring accurate records and effective coordination. By maintaining an organised database of collaborators, the system supports transparent partnership management and strengthens cooperation in the implementation of village programmes.

6.2.3.7 Collaborator Information Update Page

The figure consists of two screenshots of a web application interface. Both screenshots have a header 'AHLI JAWATANKUASA' and a sidebar with the following navigation items:

- Laman Utama
- Aktiviti Kampung
- Tetamu
- Kolaborator
 - Daftar Kolaborator
 - Senarai Kolaborator
 - Kemaskini Kolaborator**
- Analisis
- Profil
- Log Keluar

Screenshot 1: Collaborator List

This screenshot shows a table titled 'Pilih Organisasi' with the following data:

Nama Organisasi	Kategori	Tindakan
Green Earth NGO	NGO	Kemas Kini
JKM	Kerajaan	Kemas Kini
KBS Kedah	Kerajaan	Kemas Kini
Pusat Tuisyen Ahmad	Institute	Kemas Kini
USM	Universiti	Kemas Kini
UUM	Universiti	Kemas Kini

Screenshot 2: Edit Collaborator Form

This screenshot shows a form titled 'Edit Maklumat: JKM' with the following fields:

Nama Organisasi	Kategori Organisasi
JKM	Kerajaan
Pegawai Penyelaras	No. Telefon
Jamal	6876876
Emel Organisasi	Tarikh Pendaftaran (Sistem)
jamal@jkm.com	2026-01-07 18:21:39
Alamat Organisasi	
Alor Setar	

At the bottom of the form are two buttons: 'Simpan Perubahan' (Save Changes) and 'Batal' (Cancel).

Figure 5.6: Collaborator Information Update Page

This page is displayed after the Village Head clicks the “Kemas Kini” button on the Collaborator List page. It allows the Village Head to **update or edit existing collaborator**

information, including organisation name, organisation category, contact person, contact number, email address, and organisation address.

By enabling updates to collaborator records, the system ensures that all information remains accurate and up to date. This functionality supports effective collaboration management, improves communication with external organisations, and maintains reliable records for the planning and implementation of village programmes.

6.2.3.8 Committee Member Profile Update Page

A screenshot of a web application interface titled "AHLI JAWATANKUASA". The left sidebar contains navigation links: "Laman Utama", "Aktiviti Kampung", "Tetamu", "Kolaborator", "Analisis", "Profil" (which is highlighted in blue), and "Log Keluar". Below these are two buttons: "Kemas Kini Profil" and "Log Keluar". The main content area has a white background with a blue header bar. It displays a profile update form titled "Profil Saya" with the sub-instruction "Kemas kini maklumat peribadi anda di bawah.". The form includes fields for "Nama Penuh" (Najmi Alif), "No. Telefon" (1946), "Emel" (najmi@mail.com), and "Alamat Tetap" (No 14 Kampung Tanah Merah). At the bottom is a large blue button labeled "Simpan Perubahan". The URL "localhost/Academic_Project/2.7_update_committee.php" is visible at the bottom of the browser window.

Figure 5.7: Committee Member Profile Update Page

This page allows a **Committee** to view and update their personal profile information within the Programme Management System. The member may edit details such as full name, contact number, email address, and residential address.

By enabling committee members to maintain their own profile information, the system ensures data accuracy and reduces administrative workload for the Village Head. This functionality supports efficient communication, up-to-date records, and smoother coordination in the management of village programmes.

6.2.4 Village Head Management

In general, the Programme Management System is designed such that the Village Head and Village Committee members share access to most core system functionalities, including programme listings, proposal details, guest management, collaborator records, and reporting features. This shared access promotes transparency, coordination, and consistent information flow within the village administration.

However, several functions are **exclusively accessible to the Village Head** to ensure proper governance and decision-making authority. These role-specific functions, as presented in the pages below, include **programme proposal approval, committee member registration, and committee list page**, which are not accessible to committee members. This access separation ensures accountability while maintaining an effective and controlled management structure.

6.2.4.1 Programme Proposal Approval Page

The screenshot shows a web-based application interface titled "KETUA KAMPUNG". On the left, there is a vertical sidebar with navigation links: Laman Utama, Aktiviti Kampung, Kelulusan Kertas Kerja (selected), AJK, Tetamu, Laporan Program, Kolaborator, Analisis, and Log Keluar. The main content area is titled "Kelulusan Permohonan" and displays two programme proposals:

Nama Program	Tarikh	Status	Tindakan & Komen	Lihat
Seminar SPM Sumber: AJK	14/11/2026	PENDING	<p>-- Pilih Keputusan --</p> <p>-- Pilih Keputusan --</p> <p>Terima (Approve)</p> <p>Dikembalikan (Update Required)</p> <p>Ditolak (Reject)</p> <p>d Dokumen Tambahan (Opsiional)</p> <p>Choose File No file chosen</p> <p>>> Hantar Keputusan</p>	Lihat Kertas Kerja
Tuisyen Form 1 Sumber: AJK	03/03/2026	PENDING	<p>-- Pilih Keputusan --</p> <p>Sila berikan ulasan atau teguran di sini...</p> <p>d Dokumen Tambahan (Opsiional)</p> <p>Choose File No file chosen</p>	Lihat Kertas Kerja

Figure 5.8: Programme Proposal Approval Page

This page is displayed after the Village Head clicks “**Kelulusan Kertas Kerja**” in the Programme Management System. It presents a list of programme proposals that are currently **pending**, along with essential information such as programme name, date, status, and available actions.

Through this page, the Village Head can review each submitted proposal and take appropriate action by selecting **Approve**, **Return (Update Required)**, or **Reject**. The system also allows the Village Head to provide **formal remarks or comments** to justify the decision and guide the committee on necessary improvements. Supporting documents may be attached if required.

This approval mechanism ensures a structured, transparent, and accountable decision-making process, while facilitating effective communication between the Village Head and programme committees.

6.2.4.2 New Committee Registration Page

The screenshot shows the 'Pendaftaran AJK Baharu' (New Committee Registration) page. The left sidebar, titled 'KETUA KAMPUNG', contains a navigation menu with items like 'Laman Utama', 'Aktiviti Kampung', 'Kelulusan Kertas Kerja', 'AJK' (selected), 'Daftar AJK' (highlighted in pink), 'Senarai AJK', 'Tetamu', 'Laporan Program', 'Kolaborator', 'Analisis', and 'Log Keluar'. The main form area has the title 'Pendaftaran AJK Baharu'. It includes fields for 'Nama Penuh' (Full Name) with placeholder 'Masukkan nama penuh' and value 'Spt: Biro Pendidikan / Setiausaha', 'No. Telefon' (Phone Number) with placeholder 'Spt: 0123456789', 'Alamat Emel' (Email Address) with placeholder 'nama@email.com', 'Tarikh Lahir' (Date of Birth) with placeholder 'dd/mm/yyyy', 'Jantina' (Gender) with dropdown values 'Lekek' and 'Perempuan', 'Peranan Sistem' (System Role) with dropdown values 'Exco' and 'Analisis', 'Jawatan Dalam Organisasi' (Position in Organisation) with placeholder 'Spt: Biro Pendidikan / Setiausaha', 'Alamat Tetap' (Permanent Address) with placeholder 'Alamat rumah lengkap', and two footer fields: 'Nama Pengguna (Username)' and 'Kata Laluan Sementara'.

Figure 5.9: New Committee Registration Page

This page is used to **register new Village Committee (AJK) members** into the Programme Management System. After selecting “**Daftar AJK**”, the Village Head can enter complete personal and organisational details, including full name, contact number, email address, date of birth, gender, system role, and position within the organisation.

The page also allows the assignment of a **system role** (such as Executive Committee) to define the member’s access level and responsibilities. By centralising committee member registration, the system ensures accurate record-keeping, clear role allocation, and efficient management of village governance structures.

6.2.4.3 Committee List Page

The screenshot shows a web application interface titled "KETUA KAMPUNG". On the left, there is a sidebar with various menu items: Laman Utama, Aktiviti Kampung, Kelulusan Kertas Kerja, AJK (selected), Daftar AJK, Senarai AJK (selected), Tetamu, Laporan Program, Kolaborator, Analisis, and Log Keluar. The main content area has a header "Jumlah Ahli 6 Orang". Below it is a table with columns: AHLI JAWATANKUASA, HUBUNGI & PERANAN, MAKLUMAT PERIBADI, STATUS AKUAN, and TARikh DAFTAR. The table lists six members:

AHLI JAWATANKUASA	HUBUNGI & PERANAN	MAKLUMAT PERIBADI	STATUS AKUAN	TARikh DAFTAR
Alif @alif (ID: 22)	Exco Kebajikan 7899	alif@gmail.com No 3 Kampung Tanah Merah Jantina: Male	ACTIVE Katalakuan: New	07 Jan 2026
Iexuan @iexuan (ID: 21)	Exco Keceriaan 1646	lexuan@mail.com No 22 Kampung Tanah Merah Jantina: Male	ACTIVE Katalakuan: New	07 Jan 2026
Najmi Alif @najmi (ID: 20)	Exco Kebersihan & Kesihatan 1946	najmi@mail.com No 14 Kampung Tanah Merah Jantina: Male	ACTIVE Katalakuan: New	07 Jan 2026
Izza @izza (ID: 19)	Exco Keusahawanan 4123	izza@mail.com No 9 Kampung Tanah Merah Jantina: Female	ACTIVE Katalakuan: New	07 Jan 2026
Janice @janice (ID: 17)	Exco Pendidikan 5555	janice@mail.com No 8 Kampung Tanah Merah Jantina: Female	ACTIVE Katalakuan: New	07 Jan 2026

localhost/Academic_Project/8.0_committees_list.php

Figure 5.10: Committee List Page

This page displays a **complete list of registered Village Committee (AJK) members** within the Programme Management System. It presents detailed information such as member name, assigned role, area of responsibility, contact details, personal information, account status, and registration date.

Through this page, the Committee can efficiently monitor committee composition, verify active members, and ensure that each member has been assigned an appropriate role. The centralised listing supports transparent governance, accurate record-keeping, and effective coordination in managing village programmes.

6.2.4.4 Programme Report Approval and Detailed View Page

Kelulusan Laporan Program

Nama Program	Tarikh Permohonan	Status	Tindakan & Komen	Lihat
Karnival Hari Keusahawanan	2026-01-08 09:09:42	Pending	<input type="button" value="Pilih Status"/> Komen atau ulasan perlukan... <input type="button" value="Hantar"/>	Lihat Laporan
Bengkel Matematik	2026-01-08 09:04:56	Pending	<input type="button" value="Pilih Status"/> Komen atau ulasan perlukan... <input type="button" value="Hantar"/>	Lihat Laporan

Butiran Penuh Program

Status: Approved

Tajuk Program	Karnival Hari Keusahawanan		
Objektif	Meningkatkan characteristic keusahawanan di kalangan orang muda		
Kategori	Entrepreneurship	Lokasi	Surau Kampung Tanah Merah
Tarikh & Masa	07/08/2026 00:00:08	Anggaran Peserta	150 orang

Figure 5.11: Programme Report Approval and Detailed View Page

This page is displayed when the Village Head accesses the **Programme Report Approval** section. It shows a list of submitted programme reports along with essential information such as programme name, submission date, current status, and available actions.

After clicking the “**Lihat Laporan**” option, the system displays the **Programme Details Page**, which provides comprehensive information about the selected programme. This includes the programme title, objectives, category, location, date and time, and expected number of participants.

This feature allows the Village Head to review programme outcomes in detail before approving or providing feedback on the submitted report, ensuring transparency, accountability, and proper documentation of village programmes.

6.2.4.5 Programme Report List



The screenshot shows a web application interface titled "KETUA KAMPUNG". On the left is a sidebar with various menu items. The "Senarai Laporan" item is highlighted. The main content area is titled "Senarai Laporan Program" and displays a table of programme reports. The table has columns for "Nama Program", "Tarikh Hantar", "Status", and "Tindakan". Each row represents a different programme report with its details and a "Lihat Butiran" button.

Nama Program	Tarikh Hantar	Status	Tindakan
Karnival Hari Keusahawanan	2026-01-08 09:09:42	Pending	Lihat Butiran
Bengkel Matematik	2026-01-08 09:04:56	Pending	Lihat Butiran
Program Keceriaan Surau	2026-01-08 09:01:27	Pending	Lihat Butiran
Pemasangan bendera malaysia	2026-01-08 09:00:58	Pending	Lihat Butiran
Latihan Kebakaran	2026-01-08 08:59:53	Pending	Lihat Butiran
Program Latihan Kecemasan First Aid	2026-01-08 08:57:00	Pending	Lihat Butiran
CSR 2.0	2026-01-08 08:55:23	Pending	Lihat Butiran
Sambutan Kemerdekaan	2026-01-08 08:51:03	Approved	Lihat Butiran
Gotong Royong	2026-01-07 22:54:54	Approved	Lihat Butiran
Sambutan Hari Raya	2026-01-07 18:00:48	Pending	Lihat Butiran

Figure 5.12: Programme Report List

This page is displayed after the Village Head clicks “**Senarai Laporan**”. It presents a list of programme reports that have been submitted by the committee, showing key information such as programme name, submission date, and report status, including **Pending** and **Approved**.

Through this page, the Village Head can easily monitor the submission status of programme reports. By selecting the “**Lihat Butiran**” option, the system displays detailed information about the completed programme, including the programme description, objectives, category, location, date, and implementation details. This feature supports systematic reporting, transparency, and effective monitoring of completed village programmes.

6.2.5 Guest Management

6.2.5.1 Guest Activity Request Page

The screenshot shows the 'SISTEM DASHBOARD TETAMU' interface. On the left sidebar, there are links for 'Laman Utama', 'Permohonan Aktiviti', 'Senarai Aktiviti', 'Kemaskini Profil', and 'Log Keluar'. The main content area is titled 'Borang Permohonan Aktiviti' and contains the following fields:

- NAMA AKTIVITI / PROGRAM ***: A text input field with placeholder text 'Contoh: Program Sukaneka Komuniti'.
- OBJEKTIF & TUJUAN ***: A text input field with placeholder text 'Nyatakan tujuan utama program diadakan...'.
- KATEGORI**: A dropdown menu labeled 'Pilih Kategori'.
- CADANGAN LOKASI (VENUE)**: A text input field with placeholder text 'Contoh: Padang Awam / Balai Raya'.
- TARIKH CADANGAN**: A date input field with placeholder text 'dd/mm/yyyy'.
- MASA CADANGAN**: A time input field with placeholder text '--:-- --'.
- ANGGARAN BILANGAN PESERTA**: A numeric input field showing '0'.
- ANGGARAN BAJET (RM)**: A numeric input field showing '0.00'.

Figure 6.0: Guest Activity Request Page

The **Activity Application Form** is used by guests to request permission to organise an activity in the village. On this page, guests are required to fill in basic programme details such as the **activity or programme name, objectives and purpose, and category**. This information helps the village management understand the nature and goals of the proposed activity.

Next, guests need to provide the **proposed venue**, **date**, and **time** of the activity. These details allow the village authorities to assess schedule suitability and the use of village facilities.

The form also includes fields for the **estimated number of participants** and **estimated budget**, which help evaluate the scale of the programme and the resources required. In addition, guests may upload **supporting documents** such as a proposal paper or cover letter to strengthen their application.

Once the form is submitted, the request is recorded in the system and forwarded to the village authorities for review and approval. This process ensures that all proposed activities are properly evaluated before implementation.

6.2.5.2 Guest Activity Application List

ID	NAMA AKTIVITI	KATEGORI	LOKASI	TARIKH & MASA	PESERTA	BAJET (RM)	STATUS
#21	Tuisyen SPM	Pendidikan	Surau Kampung Tanah Merah	16/06/2026 09:30 AM	30	300.00	Approved
#20	Tuisyen SPM	Pendidikan	Surau Kampung Tanah Merah	15/06/2026 09:00 AM	25	250.00	Pending
#19	Tuisyen SPM	Pendidikan	Surau Kampung Tanah Merah	01/02/2026 09:00 AM	25	250.00	Approved

Figure 6.1: Guest Activity Application List

The **My Activity Application List** page allows guests to view and track all activity requests they have submitted. It helps users monitor their applications in one place.

At the top of the page, a **search function** is provided. This allows users to search applications by activity name, category, or location for easier navigation.

The main section displays a **table of applications** with clear and structured information. It shows details such as application ID, activity name, category, proposed location, date and time, number of participants, estimated budget, and current status.

Each application is assigned a **status**, such as *Pending, Rejected, or Approved*. This enables guests to easily understand whether their request is still under review or has already been approved.

6.2.5.3 Guest Profile Update Page

The screenshot shows the 'Kemas Kini Profil' (Update Profile) page. The left sidebar includes links for Laman Utama, Permohonan Aktiviti, Senarai Aktiviti, and Log Keluar. The main form fields are:

NAMA PENUH WAKIL	mimi
NAMA ORGANISASI	mada
JENIS ORGANISASI	plantation
NO. TELEFON	90909090
ALAMAT EMEL	mimi@gmail.com
ALAMAT SURAT-MENYURAT	jfpqwihefnqweknfoei

A blue button at the bottom right says 'Simpan Perubahan Profil' (Save Profile Changes).

Figure 6.2: Guest Profile Update Page

The Profile Update page allows guests to review and update their personal and organizational information. This ensures that all records in the system remain accurate and up to date.

Users are required to provide details such as the representative's full name, organization name, organization type, phone number, email address, and mailing address. These details are used for communication and verification purposes.

After making any changes, users can click the Save Profile Changes button to update their information. The system will then store the updated details in the database for future reference.

6.2.6 Analysis Management

6.2.6.1 Programme Analysis

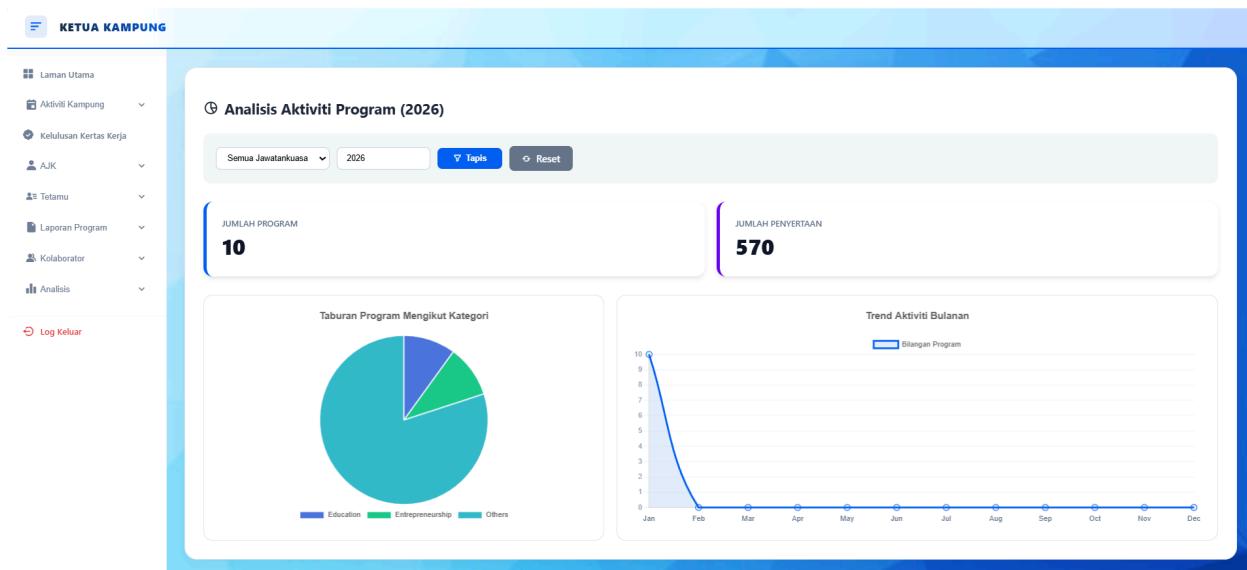


Figure 6.3: Programme Analysis Page (Overview)

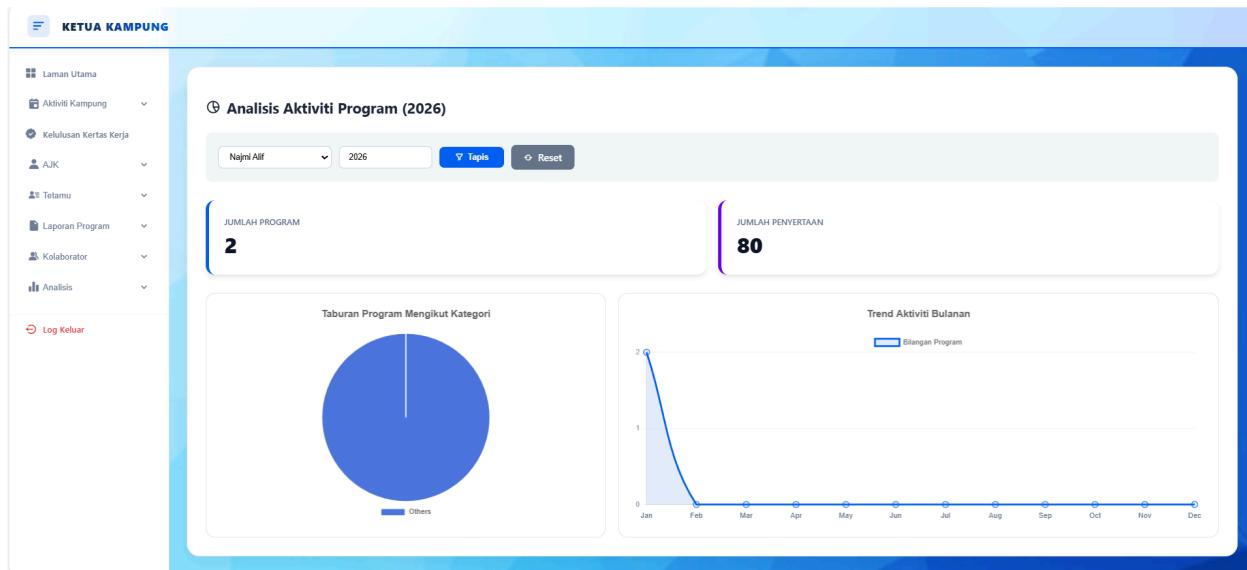


Figure 6.4: Programme Analysis Results Filtered by Committee (Najmi)

The Programme Analysis page is accessible to both the **Village Head** and **Village Committee** after successful login. This page provides an analytical overview of programme implementation to support monitoring, evaluation, and decision-making.

At the top of the page, users are provided with a **filter section** that allows analysis to be refined by **committee** and **year**. When a filter is selected and submitted, the system dynamically applies the conditions to the database query. Only programme reports that match the selected year and committee are retrieved and displayed. This logic ensures that users can focus on specific time periods or organisational units without viewing irrelevant data.

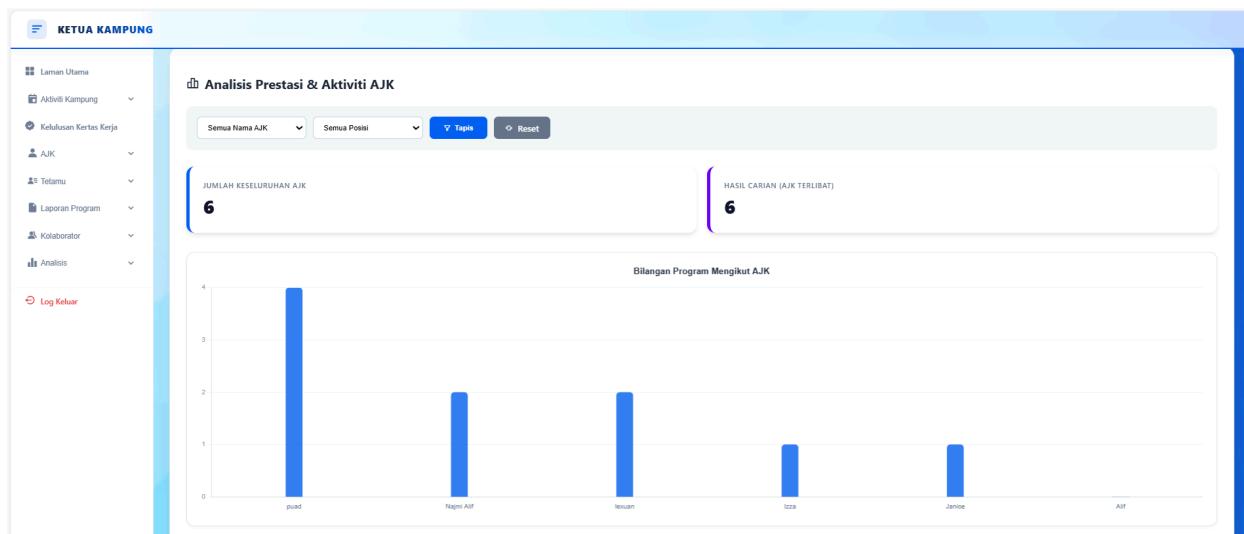
The page then displays **Key Performance Indicators (KPIs)** that summarise overall performance. These include the total number of programmes conducted and the total number of participants involved. The system calculates these values directly from the programme report records, ensuring that the figures accurately reflect actual submitted reports.

To enhance data interpretation, the system visualises programme data using **charts**. A **pie chart** presents the distribution of programmes by category, allowing users to quickly identify which types of activities are most frequently conducted. This chart is generated by grouping programme reports according to their registered categories.

In addition, a **line chart** is used to display monthly programme trends throughout the selected year. This enables users to observe patterns such as peak activity periods or months with lower engagement. The trend data is generated by counting programme submissions for each month and presenting them in chronological order.

Overall, this analysis page helps village leadership and committees evaluate programme performance, identify trends, and support data-driven planning. By combining filters, KPIs, and visual analytics, the system transforms raw programme data into meaningful insights that improve programme management and accountability.

6.2.6.2 Village Committee Analysis



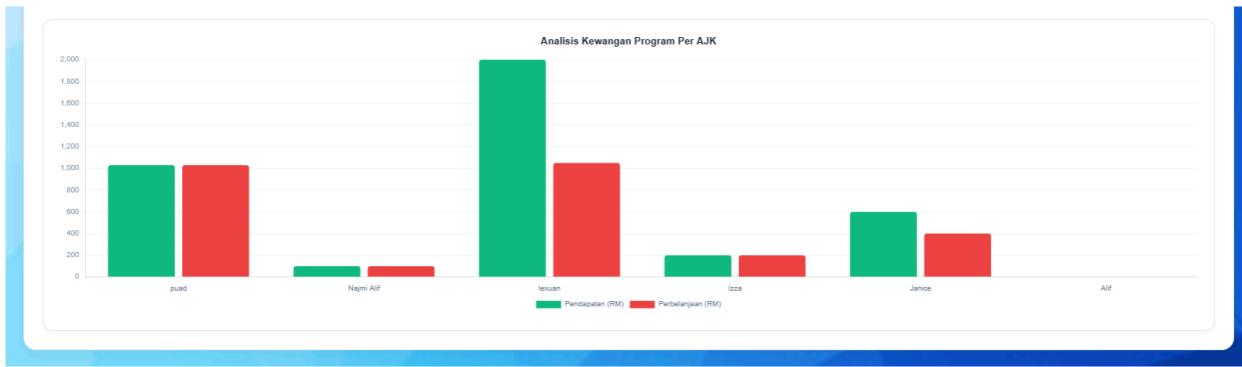


Figure 6.5: AJK Analysis (Overview)

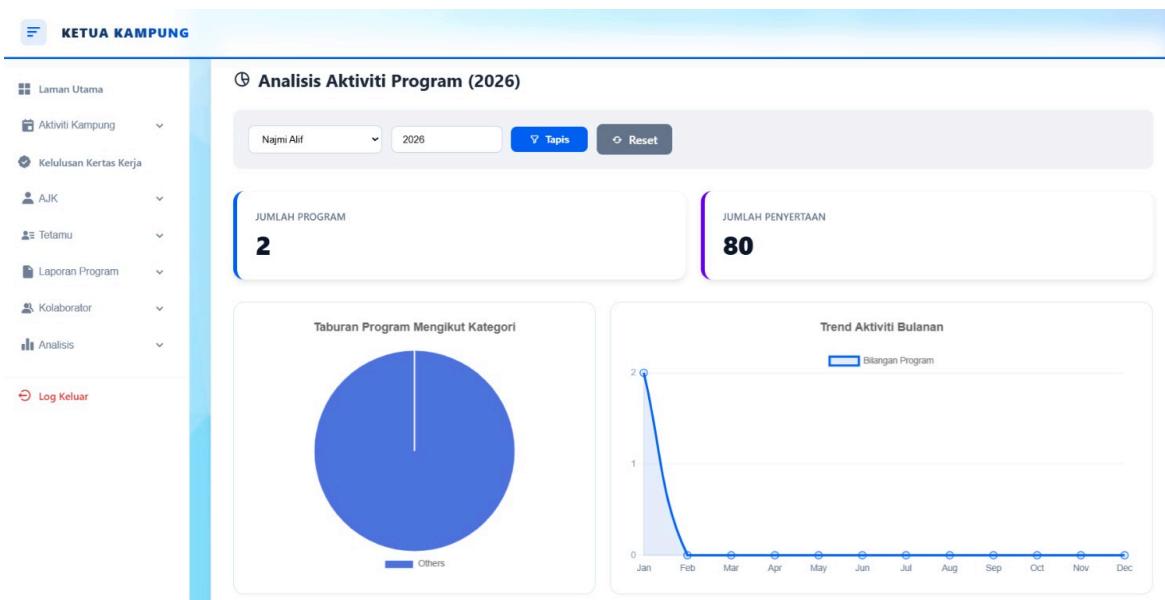


Figure 6.6: AJK Analysis Results Filtered by Committee (Najmi)

This page provides an analytical overview of committee performance and involvement in village programmes to support monitoring, evaluation, and decision-making.

At the top of the page, users are provided with a filter section that allows analysis to be refined by committee member and committee position. When a filter is selected and submitted, the system dynamically applies the selected conditions to the database query. Only committee

records and related programme reports that match the selected criteria are retrieved and analysed. This logic enables users to focus on specific individuals or roles without viewing irrelevant data.

The page then displays Key Performance Indicators (KPIs) that summarise committee performance. These include the total number of registered committee members and the number of committee members involved based on the selected filters. The system calculates these values directly from the committee database records, ensuring that the figures accurately reflect the current committee structure.

To support performance evaluation, the system visualises committee activity data using charts. A bar chart is used to present the number of programmes handled by each committee member. This visualisation allows users to easily compare activity levels and identify highly active or less active members based on programme involvement.

In addition, a grouped bar chart is used to analyse financial performance for each committee member. This chart displays programme income and expenditure, enabling users to assess financial responsibility and budget management at the committee level. The financial data is generated by aggregating income and expense values from submitted programme reports.

Overall, this analysis page assists village leadership and committee members in evaluating committee performance, monitoring activity contributions, and analysing financial outcomes. By integrating filters, KPIs, and visual analytics, the system transforms raw committee and programme data into meaningful insights that support transparency, accountability, and informed decision-making.

6.2.6.3 Collaborators Analysis

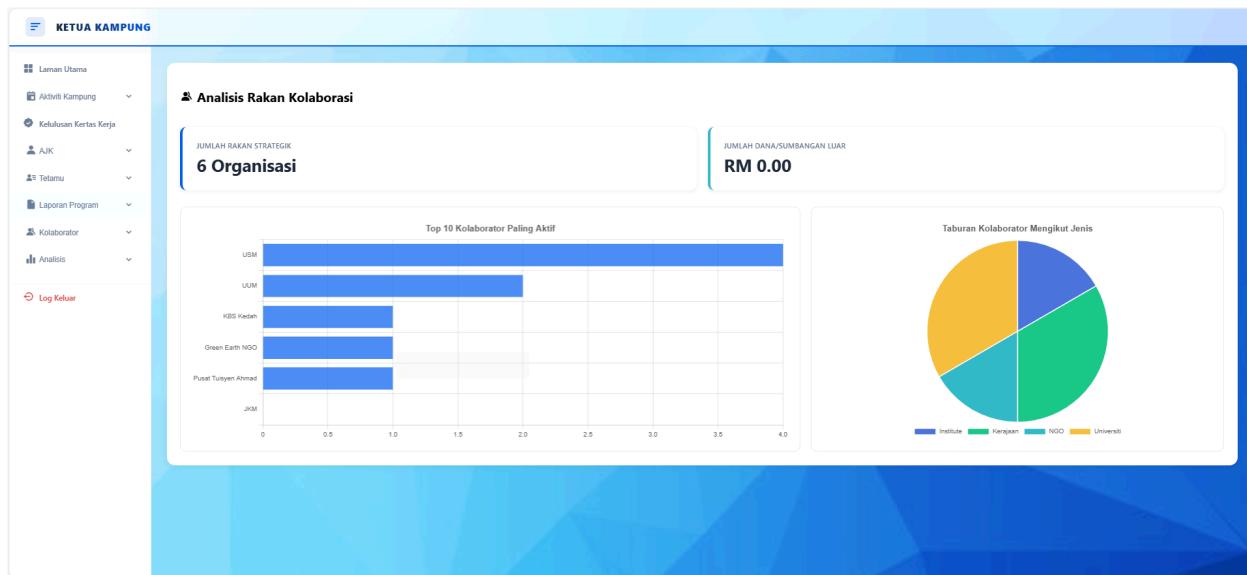


Figure 6.7: Collaborator Analysis Results

This analysis provides an overview of external collaborators and their contributions. This helps in monitoring, evaluation, and planning.

At the top of the page, Key Performance Indicators (KPIs) summarise overall collaboration performance. They show the total number of strategic collaborators. They also display the total funds or donations received from external sources. These values are calculated directly from the collaborator and proposal databases. This ensures that the numbers accurately reflect real contributions.

The page also includes two charts to visualise collaborator engagement. A horizontal bar chart shows the number of programmes conducted with each collaborator. Only the top 10 most active collaborators are displayed. This allows users to see which organisations are most involved and active.

A pie chart shows the distribution of collaborators by organisation type. It groups collaborators into categories such as NGOs, government agencies, or private organisations. This helps users understand the composition of strategic partners. It also highlights areas where partnerships could be improved.

Overall, the page helps village leadership and committees evaluate collaborator performance. It also helps monitor programme participation and understand the diversity of support. By combining KPIs and visual charts, the system turns raw data into clear insights. This improves decision-making, transparency, and accountability.

6.2.6.4 Financial Analysis

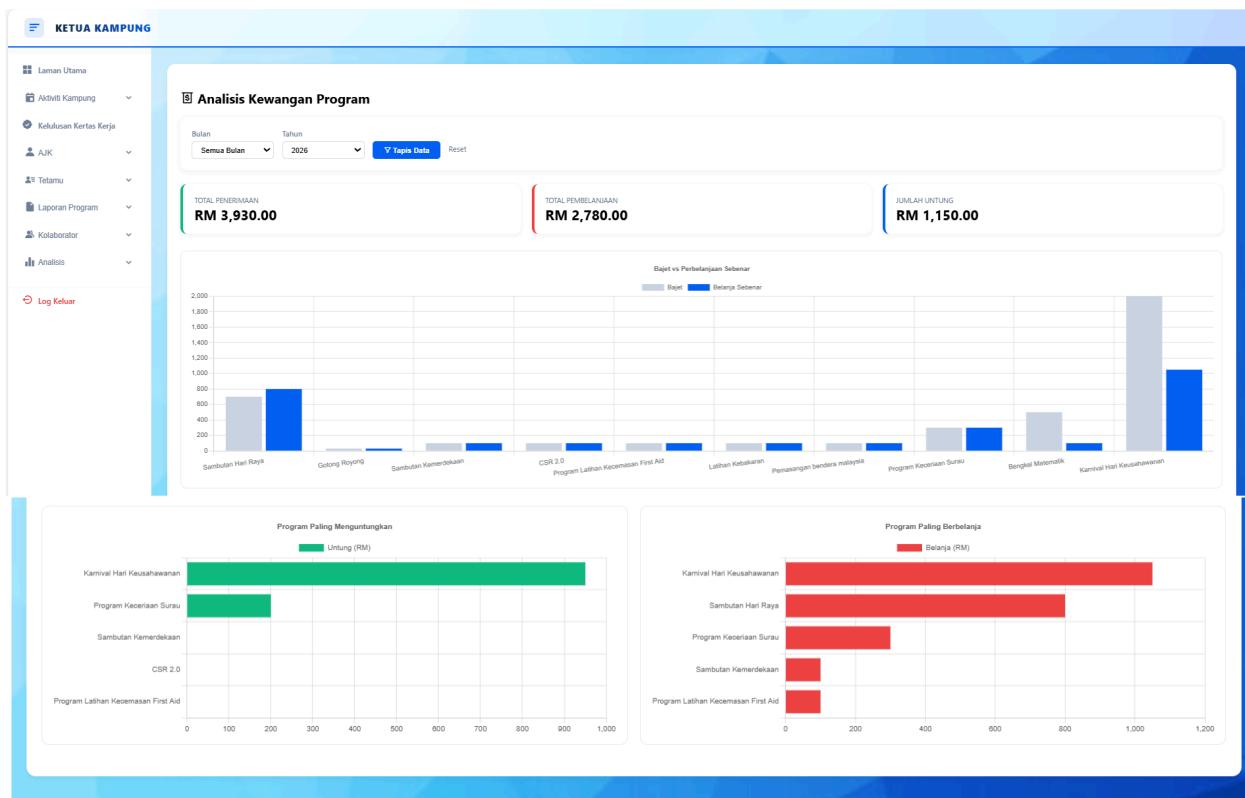


Figure 6.8: Financial Analysis

This analysis provides an overview of programme finances. The page helps users monitor income, expenses, and profits to support evaluation and planning.

At the top, users can apply filters to refine the data by month and year. When a filter is selected and submitted, the system retrieves only programme reports that match the chosen period. This ensures users see relevant financial data without clutter.

The page displays Key Performance Indicators (KPIs) that summarise overall financial performance. These include total income, total expenses, and net profit. The system calculates these values directly from programme report records. This ensures that the figures accurately reflect actual transactions.

A bar chart compares the planned budget versus actual spending for the top 10 programmes. This allows users to see whether programmes stayed within budget or exceeded planned costs.

Two additional horizontal bar charts highlight financial extremes. One chart shows the top 5 most profitable programmes. The other chart shows the top 5 programmes with the highest expenditure. These charts help users quickly identify successful programmes and those with high spending.

Overall, the page allows village leadership and committee members to evaluate financial performance. It also helps in tracking programme efficiency and accountability. By combining filters, KPIs, and visual charts, the system turns raw financial data into meaningful insights.

7.0 Project Outcomes

It is anticipated that Kampung Tanah Merah's administrative effectiveness and community involvement will significantly and quantifiably improve with the successful development and implementation of the Digital Kampung System. These results directly relate to the main goals of the project.

7.1 Centralized and Standardized Data Management

The main result of the system is the removal of manual and informal activity management techniques (such as paper-based forms and WhatsApp communication) to a centralised and standardised management system. The system function for the management with a;

- **Permanent Digital Records:** A single, well-organised MySQL database will house all program proposals, reports, supporting documentation, and historical data. The problem of information being "mostly stored in people's memories" or going out of date is now resolved.
- **Standardised Submission:** In order to standardise the quality of all documentation and expedite the data collection process, the system makes sure that each program application includes all required data fields (participants, budgets, objectives, etc.) prior to submission (Objective 1).
- **Simple Retrieval:** To support long-term reference and audit requirements, the JKK will be able to quickly search, filter, and retrieve previous program documentation.

7.2 Enhanced Efficiency and Faster Execution

The system is anticipated to speed up administrative procedures and raise the rate of activity implementation by putting in place an organised, automated workflow.

- **Decreased Approval Time:** Time-consuming manual follow-ups will be replaced by automated routing and system-generated notifications for the Village Head. This is anticipated to address the problem of Inefficient Approval Workflow (Objective 3) by drastically reducing the time lag between proposal submission and final approval.
- **Clear Priority Management:** A real-time summary of pending applications will be available on the Village Head's dashboard, enabling quicker prioritisation and timely responses.
- **Simplified Reporting:** Following an event, program directors can upload reports and add pictures right away, guaranteeing that the activity cycle is closed on time.

7.3 Increased Transparency and Accountability

In order to promote trust and enhance internal accountability within the JKJKK, the system is built to give instant clarity on the status of each application.

- **Real-time Status Tracking:** AJK committee members will have access to a special dashboard that shows the precise status of their proposals (Pending Review, Approved, Rejected). This addresses the existing confusion and lack of transparency related to unofficial channels of communication (Objective 2).

- **Audit Trail:** To ensure greater accountability, the Activity & Audit log will document every action, including who submitted, who approved, and the timestamp. This will create a complete historical record of the decision-making process.

7.4 Support for Strategic Decision-Making and Community Engagement

The platform will improve the residents' experience and turn unprocessed activity data into useful insights for the JKKK.

- **Data-Driven Planning:** Program summaries, budget utilization (income and expenses), and participant counts will all be provided by the centralized Dashboard and Reporting module. The JKKK will be able to make well-informed decisions about future planning and resource allocation thanks to this historical data.
- **Better Resident Experience:** An easily accessible village activity calendar and reminders will make it easier for residents and visitors to sign up and take part. This reinforces Kampung Tanah Merah's high participation rates and strong sense of community.

8.0 Conclusion

8.1 Impact to Community

8.1.1 Impact on Villagers

For villagers, the system improves access to information and participation in community activities in a more structured way. The villagers can easily view the programme announcements, schedules, and activity details through the system without relying on WhatsApp messages or word-of-mouth communication. This reduces the risk of missing information and ensures that all villagers receive the same and updated information.

In addition, the system encourages higher participation in village programmes as villagers can clearly understand the purpose, time, and location of each activity. The clearer flow of information also improves the communication between villagers and the village committee, as programme information is shared in one official platform. Overall, this helps to create a more active, informed, and connected village community.

8.1.2 Impact on Village Organisation (JKKK)

The proposed system has a significant positive impact on the village organisation, especially the JKKK, by improving how programmes are managed, monitored, and recorded. With all programme applications, approvals, and activity records stored in one centralised system, committee members can work in a more organised and systematic manner. This makes them easier to review applications, track progress, and manage multiple programmes at the same time.

Furthermore, the system reduces manual work such as handling paper forms, searching through chat messages, and repeated follow-ups. The digital approval process also helps the Village Head to make faster and clearer decisions, as all required information is available in one place. As a result, transparency, coordination, and overall efficiency in village administration are improved.

8.1.3 Impact on External Parties

The system also benefits external parties, such as invited guests, organisations, or agencies, who wish to organise or participate in programmes in Kampung Tanah Merah. The system provides a structured and formal platform for external parties to submit programme requests digitally, instead of relying on informal communication methods.

Through the system, external parties can clearly submit their proposals and track the application status without confusion. This reduces misunderstandings, improves communication, and creates a more professional collaboration process. Overall, the system helps to strengthen cooperation between Kampung Tanah Merah and external organisations, and supporting smoother programme planning and coordination at the same time.

8.2 Future Development

8.2.1 Mobile Application Integration

The current prototype of the Programme Management System for Kampung Tanah Merah is a web-based application developed using PHP and Mysql. By this, the system is accessible through a web browser with the function to centralise programme related information and improves administrative efficiency. The use of the Programme Management System allows the

users to communicate faster and anywhere. However, due to the limited accessibility, the system can only be accessed through desktop or laptop devices. Hence, developing a mobile application version of the system enables the users to access services anytime and anywhere. This enhances the operational of the organisation as communication is enhanced and information are delivered and received faster without any technological obstacles.

8.2.2 Implementation of Artificial Intelligence

The current prototype also lacks the implementation of Artificial Intelligence (AI). AI is significantly an important feature in the system as it enhances the efficiency, accuracy and decision-making capabilities of the system. AI are able to support the organisation in managing programmes, resources and community engagement. Some of the AI that is suitable to be integrated into the system are predictive analytics for programme planning or fraud and anomaly detection regarding the village financials. Predictive analytics can be done using the organisation's historical data where the AI can predict the potential scheduling conflicts, suggestions on programmes category and expected community participation. The village leaders are able to plan and propose programmes more strategically while minimising the risk programmes not achieving the targeted amount of participants.

8.2.3 Financial Tracking and Budget Monitoring

The Programme Management System also could be enhanced by using the system to track and monitor the village financials. The system may provide the authorized users with the programme cost breakdown and the village financial summaries on the programmes conducted. Other than that, comparison on the approved budget of the programme and actual spending allow users to track the spending more effectively, identify budget variances and improve financial control and

transparency. This would allow the village to have better financial planning, accountability and decision-making in managing the village resources.

8.3 Conclusion

In this system, the main goal is to help the village manage programmes in a more organised and transparent way. The system allows the Village Committee to create proposals, upload documents, and submit reports easily. The Village Head can review and approve these proposals in a proper workflow, which makes the process clearer and reduces mistakes. Their residents and guests can also view upcoming programmes, and guests can submit activity requests without needing an account.

By using role-based access, the system makes sure that only authorised users can submit or approve proposals. This increases security and ensures that the information inside the system is accurate. The dashboard pages give each user group a simple view of the information they need, such as pending approvals, programme status, budget usage, and reports.

Overall, this proposed system can improve communication, reduce manual work, and make programme management more efficient for the village. It also provides a better experience for committee members, villagers, and guests. The system supports the whole process from proposal creation to approval and reporting, and helps the community run its activities in a smoother and more structured way.

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10.0 Appendix

10.1 Declaration of Individual Contribution

10.1.1 Nur Azzah Binti Mohamad Puad (295673)

In this project, I assumed a leadership role by **segregating tasks among team members** according to their respective strengths and responsibilities. I also **initiated and facilitated discussions** to ensure that all team members shared a common understanding of the project objectives, system requirements, and development approach. This coordination helped maintain clarity and consistency throughout the project development process.

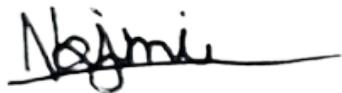
As the project progressed, I was responsible for **leading the team and monitoring overall progress** to ensure that all tasks were completed within the agreed timeline. I regularly reviewed milestones, addressed challenges encountered by team members, and provided guidance when necessary. In addition, I responded to team members' inquiries by offering clarification, technical support, and constructive feedback to ensure smooth collaboration and steady progress.

Furthermore, I acted as the **primary liaison with external parties**, including stakeholders involved in interviews and requirement gathering. I communicated feedback and insights obtained from these interactions to the team to ensure that the system development aligned with real-world needs and expectations. Through effective leadership, communication, and coordination, I contributed significantly to the successful completion of this project.

In terms of tasks contribution, I was assigned to complete the **Scope of system** and **User Requirement** along with **Data Flow Diagram Level 1** of the system. While that, in the process of completing the system, I was assigned to complete the **User Management** section which

consists of the page for registration, login, update and others. Along with that, I completed the page for **proposal and report approval page** used by the Village Head. I also contributed in **checking the flow of the system** along with Najmi and finalised the system for presentation. In the presentation, I **presented** the AJK and Guest user of the system.

In conclusion, I've done my best to contribute in completing the project from the beginning until the end. My group has been committed to completing the project until the last point which is submitting our report.

A handwritten signature in black ink, appearing to read "Najmi". It is written in a cursive style with a horizontal line underneath it.

Name: Muhammad Najmi Alif Bin Hairudin

10.1.2 Muhammad Najmi Alif (294645)

In this project, I contributed majority on the development of the system and its planning. Firstly, I accompany Azzah and with another group for the **first interview session with the village committees to gather the information** needed for our project.

For the documentation of the project proposal & report, I contributed to **creating the Feasibility Analysis of the system**. I help create the Feasibility based on the 4 category, Technical, Operational, Economic and Schedule to determine if the project is viable and worth developing. I also **assist in creating the system architecture on the Context Data Flow Diagram**. I also help write the user manual of the system that covers all the systems interface, dashboard and functionality.

For the development of the system, I am in charge of **creating the proposal budget interface that was also use for the actual budget report and the overall analysis section of the system interface**. Besides that, I am in charge of the **formatting the design of all the interface** created to ensure a systematic and consistent display on all interface and dashboard. I also assist in **amending any issues or error that arise from any file code and implement any changes, improvement or new functions for the system** such as the check calendar, notification, cards display and other that been discussed beforehand in our meeting or finishing the functionality of the code that had been created by my groupmates. I also acts as the final person to **compile, test and amend all the file code and sql database** to ensure all functionality is in place as intended.

During the presentation, I help in **presenting and demonstrating to the village head and representative on the system** that we had developed. I help cover the system main dashboard and the village head interface section. For our video demonstration I also **assist in recording the village head section of the system**. Therefore, I successfully contributed on this project to the best of my ability regarding the initial system proposal, majorly on the development of the system, presentation to respective village officer and the reporting of the project.

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Name: Nur Azzah Binti Mohamad Puad

10.1.3 Goh Janice (294999)

At the beginning of the project, I **participated in an interview session** with the village representative to understand the current problems, workflow, and needs of Kampung Tanah Merah. I was responsible for collecting and analysing the interview information.

During the proposal stage, I **prepared the content for the management proposal**, which includes **identifying what information and functions should be included in the system**. I also **designed the initial system layout and page structure** by Canva, where each system page was planned to show how the system would function and look.

For documentation of final project and presentation materials, I was responsible for **writing the Impact on Community section**. I also **created the Entity Relationship Diagram (ERD)** using Lucidchart to clearly show the database relationships for the proposed system. In addition, I also contributed to **poster preparation** and helped to **standardise the answers and written content** by checking consistency. I also took part in the presentation by **presenting the findings section**.

During the system development phase, I was involved in **creating the proposal submission function** and the **guest activity request feature** in the system. Overall, my contribution focused on planning, documentation, system design, and ensuring that the system content met the project requirements and real community needs.



Name: Nur Azzah Binti Mohamad Puad

10.1.4 Foo Le Xuan (295344)

My responsibilities included preparing the **project introduction and objectives**, where I explained the background, purpose, and goals of the system. I also described the **technology used** so that the tools, platforms, and frameworks applied in the project could be clearly understood. In addition, I created the **Entity Relationship (ER) table** to support future development and to ensure consistency in data structure among team members.

For documentation, I was responsible for writing the **Findings section** of the project report. This section covered the system workflow, testing process, testing results, and an analysis of the system's impact based on the implemented features.

In terms of system development, I handled **guest management**, **dashboard development**, and **committee management**, including committee and collaborator lists and profiles, as well as the system navigation bar. I ensured that the report content matched the actual system functions and aligned with the project objectives.

For the **project poster**, I was responsible for the **Findings section**, where I presented the main results and outcomes of the system.

I confirm that the work described above reflects my ability to apply my technical and analytical skills in contributing effectively to the successful completion of this project.

A handwritten signature in black ink, appearing to read "Nur Azzah Binti Mohamad Puad".

Name: Nur Azzah Binti Mohamad Puad

10.1.5 Tuan Nur Izza Nasuha binti Tuan Rosidi (291319)

In this project, I contributed actively to both the **data collection and system development** processes. I was involved in **collecting primary data through interviews with the Village Head**, which helped in understanding the current workflow, challenges, and requirements related to programme management. The information gathered from these interviews was later used to support the system requirements and design decisions.

In terms of **documentation**, I was responsible for preparing and compiling the **Methodology** and **Findings** sections of the project report. This included explaining the development approach, testing results, and system impact based on the implemented features. I ensured that the report content accurately reflected the actual system functionality and aligned with the project objectives.

For the **poster presentation**, I was in charge of designing the **background and project objectives**, as well as contributing to the overall poster layout to ensure clarity and visual consistency. In addition, I contributed to the **system development** by working on specific modules, particularly the **Programme List** and **Programme Proposal Approval** features, which allow committee members to view programme submissions and enable the Village Head to review and approve proposals through a structured workflow.

Through my involvement in data collection, documentation, system development, and poster design, I contributed meaningfully to the successful completion of this project.



Name: Nur Azzah Binti Mohamad Puad

10.2 Login Details

Username	Password
Village Head	
puad	puad1
AJK	
najmi	najmi1
janice	janice1
lexuan	lexuan1
izza	izza1
Guest	
mada	mada
din	din1

10.3 Interview Questions

Soalan umum

- boleh ceritakan sedikit tentang kampung ini ? (sejarah dan kawasan sekeliling)
- berapa anggaran jumlah penduduk di kampung ini ? (berapa orang dewasa, kanak kanak & warga emas) (berapa orang melayu, cina, india & lain lain)
- adakah terdapat persatuan atau jawatankuasa yang aktif di kampung ini ? (contoh, JKKK)
- apakah pekerjaan utama penduduk kampung ini ?
- apakah kemudahan asas yang ada di kampung ini ? (jalan raya, internet dan lain lain)
- apakah kemudahan awam yang ada di kampung ini ? (surau, balai raya, sekolah, klinik)

Tahap penggunaan teknologi di kampung

- Bagaimana tahap capaian internet di kampung ini ? (laju, perlahan atau takda terus) (contohnya 4G atau Wifi awam)
- Adakah semua kawasan kampung mempunyai liputan telefon dan data?
- Adakah penduduk biasa menggunakan WiFi atau hanya data telefon?
- Adakah penduduk kampung biasa menggunakan telefon pintar dan internet dalam kehidupan harian?

5. Adakah golongan warga emas di kampung ini juga menggunakan teknologi digital, atau lebih ramai yang tidak mahir?/ Adakah warga emas sukar menggunakan telefon atau aplikasi digital?

Komunikasi & Pengurusan Ekonomi

1. Bagaimana penduduk biasanya mengetahui maklumat kampung (contohnya mesyuarat, gotong-royong, aktiviti)?
2. Adakah ada sistem tertentu (contohnya WhatsApp group, Facebook page, laman web kampung)?
3. Adakah maklumat kadang-kadang lambat sampai atau tidak semua orang tahu?
4. Bagaimana cara penduduk membuat aduan (contohnya jalan rosak, lampu jalan rosak)?

Pandangan & cadangan terhadap Digital Kampung

1. Apakah pandangan anda tentang konsep “Digital Kampung”?
2. Pada pendapat anda, bagaimana teknologi digital boleh membantu pembangunan kampung ini?
3. Apakah jenis sistem digital yang anda rasa paling diperlukan di kampung ini (contohnya sistem maklumat kampung, jualan dalam talian, atau komunikasi komuniti)?

10.4 Interview



First Interview on 20 October 2025



Second Interview on 9 November 2025