# Project Documentation

Assessment Task for Morph Digital Sdn. Bhd.

# Finance Logger System

https://github.com/Ventren/Finance_Logger

By Ventren Nair

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# Project Overview

This system was developed as a technical assessment for Morph Digital. The project required a specific full-stack requirement: Vue.js for the frontend, PHP for the backend, and MySQL for data storage.

The core objective was to ensure seamless data synchronization between the server and the interface, with a specific focus on handling dates and currencies.

By focusing on these two constraints, the Finance Logger is developed. This system provides a robust solution for tracking user income and expenses, ensuring that every transaction is accurately logged, categorized (income or expense), and converted within a unified financial environment. The system allows multiple currencies and categories to be added by the user to fit their lifestyle.

# Project Goal

The project goals are as listed below:

Unified Dashboard: To provide a single interface displaying total net worth in a base currency (MYR) based on fixed internal rates.

Controlled Normalization: To automatically convert transactions using system-defined constants, ensuring consistency in financial reporting without the volatility of live market rates.

Data Visualization: To transform transaction history into actionable insights via interactive charts.

User-Centric Customization: To provide a fully adjustable environment where users can modify currency codes and transaction categories to align with their specific financial lifestyle and spending habits.

# Functional Requirements

*Table 1:Functional Requirements*

| ID | Requirements | Description |
|---|---|---|
| FR1 | Transaction Logging | The system allows users input income and expenses with date, amount, description and currency selection. |
| FR2 | Multi-Currency | The system support four major currencies (MYR, USD, SGD, CNY). |
| FR3 | Automatic Calculation | The system auto calculates the equivalent MYR value for every non-MYR transaction based on internal fixed rates. |
| FR4 | Real Time Analytics | The system to provide a visual breakdown of expenses using a pie chart that updates as data changes. |
| FR5 | System Configuration | The system allows users to add, rename or remove categories and update currency codes. |

# Development Environment

To ensure consistency and performance, the system was developed and tested using the following environment:

IDE: Visual Studio Code (VS Code)

Local Server: XAMPP (Apache & MySQL)

Frontend Framework: Vue.js 3 (Vite)

Backend Language: PHP

Database Management: phpMyAdmin / MySQL

Styling & UI: Tailwind CSS & Chart.js

# Scope

## Deliverables

The scope of this project is to provide a functional local-environment financial tool. The project is finalized through the following key deliverables:

Source Code: A fully reactive frontend built with Vue 3 and a structured API backend built with PHP.

Database Schema: A database.sql export file that allows for immediate replication of the data structure in a MySQL environment.

System Documentation: Detailed instructions (README) and technical goals (this PDF) to guide the user through setup and feature navigation.

Operational Requirements: The system is designed to run on a local server environment (such as XAMPP or WAMP) with a focus on single-user interaction.

## Project Timeline

Development followed a structured timeline over 6 days, beginning with database schema design, followed by backend development, and concluding with the Vue 3 reactive frontend and documentation.
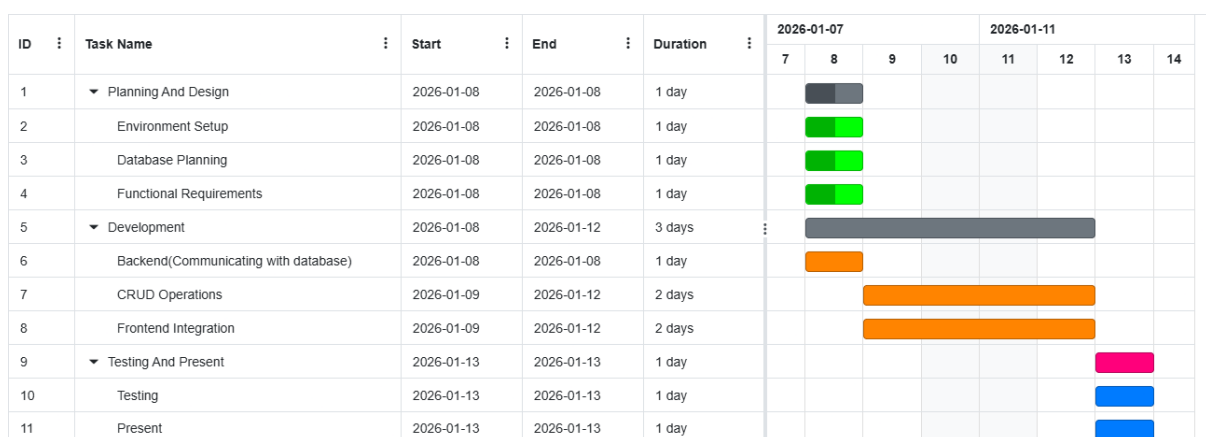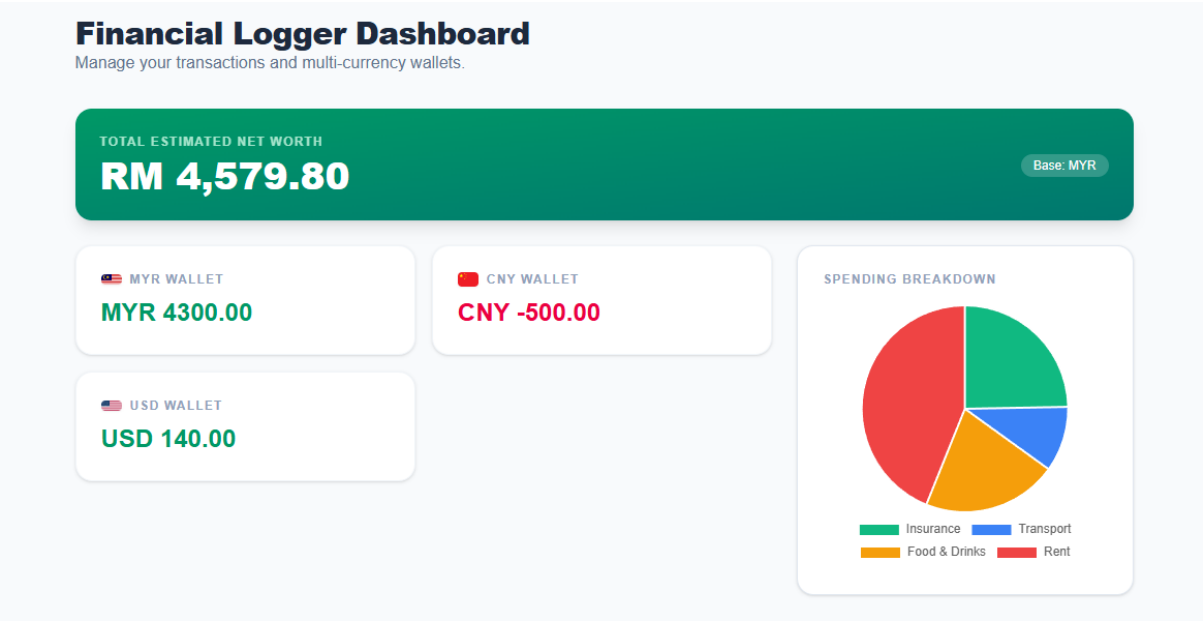
| ID | Task Name | Start | End | Duration | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ▾ Planning And Design | 2026-01-08 | 2026-01-08 | 1 day | | ■ | | | | | | |
| 2 | Environment Setup | 2026-01-08 | 2026-01-08 | 1 day | | ■ | | | | | | |
| 3 | Database Planning | 2026-01-08 | 2026-01-08 | 1 day | | ■ | | | | | | |
| 4 | Functional Requirements | 2026-01-08 | 2026-01-08 | 1 day | | ■ | | | | | | |
| 5 | ▾ Development | 2026-01-08 | 2026-01-12 | 3 days | | ■ | ■ | ■ | ■ | ■ | | |
| 6 | Backend(Communicating with database) | 2026-01-08 | 2026-01-08 | 1 day | | ■ | | | | | | |
| 7 | CRUD Operations | 2026-01-09 | 2026-01-12 | 2 days | | | ■ | ■ | ■ | ■ | | |
| 8 | Frontend Integration | 2026-01-09 | 2026-01-12 | 2 days | | | ■ | ■ | ■ | ■ | | |
| 9 | ▾ Testing And Present | 2026-01-13 | 2026-01-13 | 1 day | | | | | | | ■ | |
| 10 | Testing | 2026-01-13 | 2026-01-13 | 1 day | | | | | | | ■ | |
| 11 | Present | 2026-01-13 | 2026-01-13 | 1 day | | | | | | | ■ | |

*Figure 1: Gantt Chart*

# Project Snapshot



*Figure 2: Logger Dashboard*



*Figure 3: Transaction Form*

| Date | Category | Description | Amount | Actions |
|------|----------|-------------|--------|---------|
| 01 Dec 2025 | Food & Drinks | *Annual Dinner Contributions* | **MYR 500.00** | EDIT DELETE |
| 10 Jan 2026 | Insurance | *Car Insurance* | **MYR 700.00** | EDIT DELETE |
| 09 Jan 2026 | Transport | *To work (monthly)* | **CNY 500.00** | EDIT DELETE |
| 08 Jan 2026 | Freelance | *KL maxis website bug* | **MYR 900.00** | EDIT DELETE |
| 09 Jan 2026 | Food & Drinks | *MCDonalds Date* | **MYR 100.00** | EDIT DELETE |
| 09 Jan 2026 | Rent | *Assistant Programmer fee* | **USD 60.00** | EDIT DELETE |
| 09 Jan 2026 | Salary | *Foreign Client* | **USD 200.00** | EDIT DELETE |
| 09 Jan 2026 | Freelance | *Web Bug Troubleshooting for Comp…* | **MYR 700.00** | EDIT DELETE |

*Figure 4: Table of transactions*

*Figure 5: Transaction category and currency configuration*

*Figure 6: Fixed rate and total calculation*