Mero Khutruke - A Web-Based Personal Finance Manager

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Introduction

Introduction

Figure: Logo of Mero Khutruke

Introduction

- Mero Khutruke is a web based personal finance management system software.

- Personal finance is a term that covers managing your money as well as saving and investing.

- Mero Khutruke helps user in minimizing physical calculation for daily expenditure and track income and expenses.

- User's can use a pre-defined categories that web application offers.

Problem Statement

- Difficulty in maintaining the individual's economic well-being due to multiple source stream.

- Existing systems are often complicated, subscription payment for features, poor user-friendly environment.

- Plenty of inaccurate and unreliable data due to human behavioral errors.

- Lack of awareness of tracking expenses and spending habits.

Objectives

- To track the user's daily expenditure.

- To promote creating a saving goal for an individual.

- To provide a user friendly environment for the end users to manage their personal finances.

- To provide visual representation of the income and expenses.

Scope

- Minimizing the physical calculations and tracking of income and expenses.

- Minimizing of dispensable expenditure and improves spending habits.

- The system provides transaction management where the users will be able to record, edit, delete, and categorize transactions.

- Provides visually appealing charts showing individual's incomes and expenses.

- Enables us to set financial goals and improves spending habits by minimizing dispensable cost.

Limitation

- The system does not support integration with the banking APIs resulting in lack of real-time syncing with the statement.

- Lack of advanced financial features.

- There are limited customization options for visual report, and dashboards.

- Offline access is not supported.

- The system initially support only one language and one currency.

Development Methodology

Figure: Agile Methodology

Literature Review

- Know Your Budget is an everyday expense tracker and control application to track costs effortlessly and efficiently[1].

- Money Lover is a simple money tracker that records daily transactions in categories and provides reports on spending patterns [2].

- Controle Finance is a web-based personal finance manager. It tracks the users day to day transactions. The users can import spreadsheet into the application [3].

Feasibility Study I

- The proposed project was technically feasible as the available technical requirements are fulfilled and every team members are familiar with the tools and methods

- The proposed system was operationally feasible with the minimum requirement of browser, internet and little knowledge of computer system.

- As the project is for educational purpose and don't expect any returns. So, the proposed system is economically feasible with minimum costs.

- The following project took us approximately 12 weeks to complete which is within the scope of the final year project.
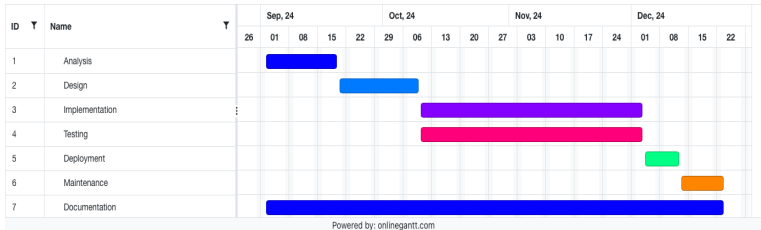
Feasibility Study II

Figure: Gantt Chart

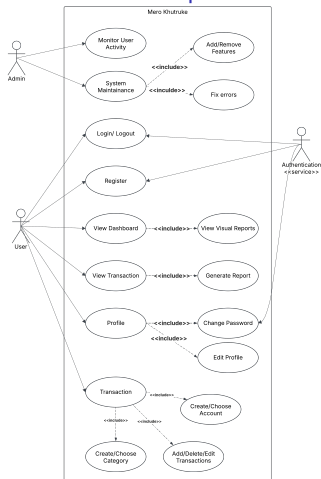# Requirement Analysis

Functional Requirement

Figure: System Use Case Diagram

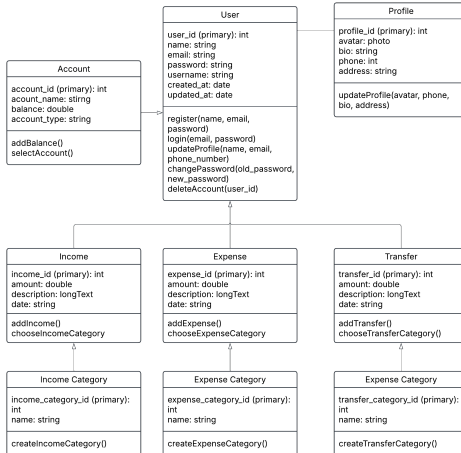# High-Level Design of System

Figure: Class Diagram of Mero Khutruke
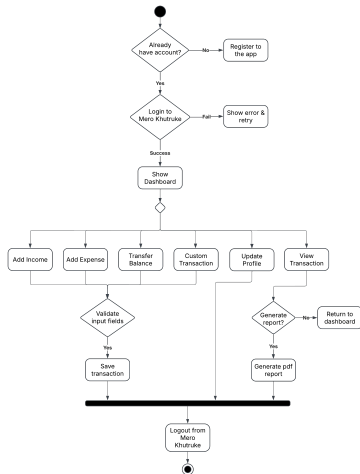
High-Level Design of System

Figure: Activity Diagram of Mero Khutruke
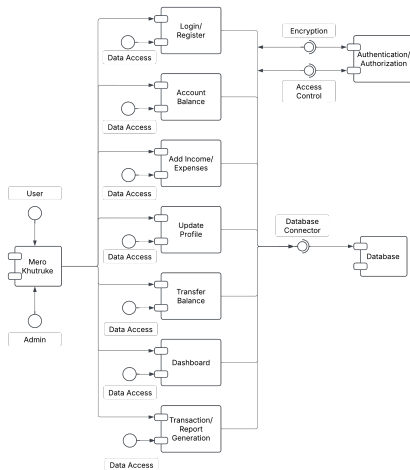
High-Level Design of System

Figure: Component Diagram of Mero Khutruke

High Level Design of System

Description of Algorithms

- Sorting Algorithm: Rearranges a given array according to a comparison operator.

- Cookie-based Authentication: Generates access tokens, which uniquely identifies user's session.

Live Demonstration

Conclusion

Our project "Mero Khutruke – A Web-based Personal Finance Manager" is a practical, scalable, and user-friendly personal finance management solution which provides a robust and scalable solution for individuals and families to efficiently manage their financial activities.

Recommendation

- Progressive Web App

- Data integration with banking APIs

- Advanced financial features

- Implementation of AI/ML

- Multi-User Access

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