

Personal Finance Manager

A MINI-PROJECT REPORT

Submitted by

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of

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IN

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**RAJALAKSHMI
ENGINEERING COLLEGE**

An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

RAJALAKSHMI ENGINEERING COLLEGE

AUTONOMOUS, CHENNAI

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BONAFIDE CERTIFICATE

Certified that this mini project “**Personal Finance Manager**” is the bonafide work of “**MOHAMED NAWFAL SALAM M-(2116220701168)**” who carried out the project work under my supervision.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

The Personal Finance Management App is a web-based solution designed to help users track their financial activities, manage income and expenses, and gain insights into their spending patterns. Built using HTML, CSS, JavaScript, PHP, and a MySQL database, the app is divided into three core modules: Dashboard, Transaction History, and Transactional Analytics. The Dashboard provides a real-time overview of the user's financial status, allowing them to add transactions that are stored in the backend database via PHP. This module displays total income, expenses, and the current balance, dynamically updating to reflect any new entries. The Transaction History offers a detailed view of all past transactions, which can be filtered by month, giving users the ability to track their financial habits over time.

The Transactional Analytics module provides a visual representation of income and expenses through interactive charts generated by Chart.js, offering month-wise insights into the user's financial behavior. This helps users better understand their spending patterns and make informed decisions. The app's backend, powered by PHP and MySQL, ensures that transaction data is securely stored and retrieved for display across the app. The combination of a responsive design and seamless data processing through AJAX ensures a smooth and user-friendly experience, making the app a comprehensive tool for personal finance management.

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CHAPTER 1

INTRODUCTION

1.INTRODUCTION

The Personal Finance Management App is a web-based tool designed to help users track and manage their income, expenses, and overall financial status. Built with HTML, CSS, JavaScript, PHP, and MySQL, it includes a Dashboard for real-time financial overviews, a Transaction History module to view past transactions both current and month-wise, and a Transactional Analytics module that visually represents financial data with charts. The app provides an efficient and user-friendly way to monitor personal finances and make informed decisions.

1.2 SCOPE OF THE WORK

The scope of this project involves developing a comprehensive Personal Finance Management App with a user-friendly interface and robust backend functionality. The app will be built using HTML, CSS, JavaScript, PHP, and MySQL for database management. It will consist of three key modules: Dashboard, Transaction History, and Transactional Analytics. The Dashboard will display real-time updates of total income, expenses, and balance, along with the ability to add transactions that will be stored in the backend. The Transaction History module will allow users to view all transactions, both current and on a month-wise basis, offering detailed financial tracking. The Transactional Analytics module will generate graphical representations of monthly income and expenses, providing users with insights into their spending patterns and helping them make informed financial decisions. The app's scope includes secure data storage, dynamic data updates, and interactive charts to ensure a seamless and efficient user experience for managing personal finances.

1.3 AIM AND OBJECTIVES OF THE PROJECT

The aim of the **Personal Finance Management App** project is to develop a user-friendly and efficient platform that enables users to manage, track, and analyze their financial activities, including income and expenses, through an interactive dashboard, detailed transaction history, and monthly analytical insights. The app seeks to simplify personal finance management, providing users with tools to monitor their financial health and make informed budgeting decisions.

Objectives:

1. **Develop a responsive interface:** Create an intuitive and user-friendly interface using **HTML**, **CSS**, and **JavaScript**, allowing users to navigate through different modules like the dashboard, transaction history, and analytics with ease.
2. **Implement real-time financial tracking:** Design a **Dashboard** that dynamically updates and displays the user's total income, expenses, and balance, while providing an input form to add new transactions.
3. **Create a detailed transaction history:** Develop a **Transaction History** module that retrieves all transaction data from the **MySQL database** and displays it with month-wise filtering, enabling users to review both current and historical transactions.
4. **Visualize financial data:** Integrate **Chart.js** into the **Transactional Analytics** module to provide users with a visual representation of their income and expenses on a monthly basis, helping them analyze their spending patterns and financial trends.
5. **Ensure secure and efficient data storage:** Use **PHP** to handle backend processes such as storing, retrieving, and managing transaction data in the **MySQL database**, ensuring the security and integrity of the data.

CHAPTER 2

SYSTEM SPECIFICATIONS

1. HARDWARE SPECIFICATIONS

Processor: Intel Core i5 or higher (or equivalent AMD Ryzen processors).

RAM: A minimum of 8 GB to handle model inference and web requests efficiently.

Storage: 500 GB hard drive or SSD for storage of required application files and datasets.

2. SOFTWARE SPECIFICATIONS

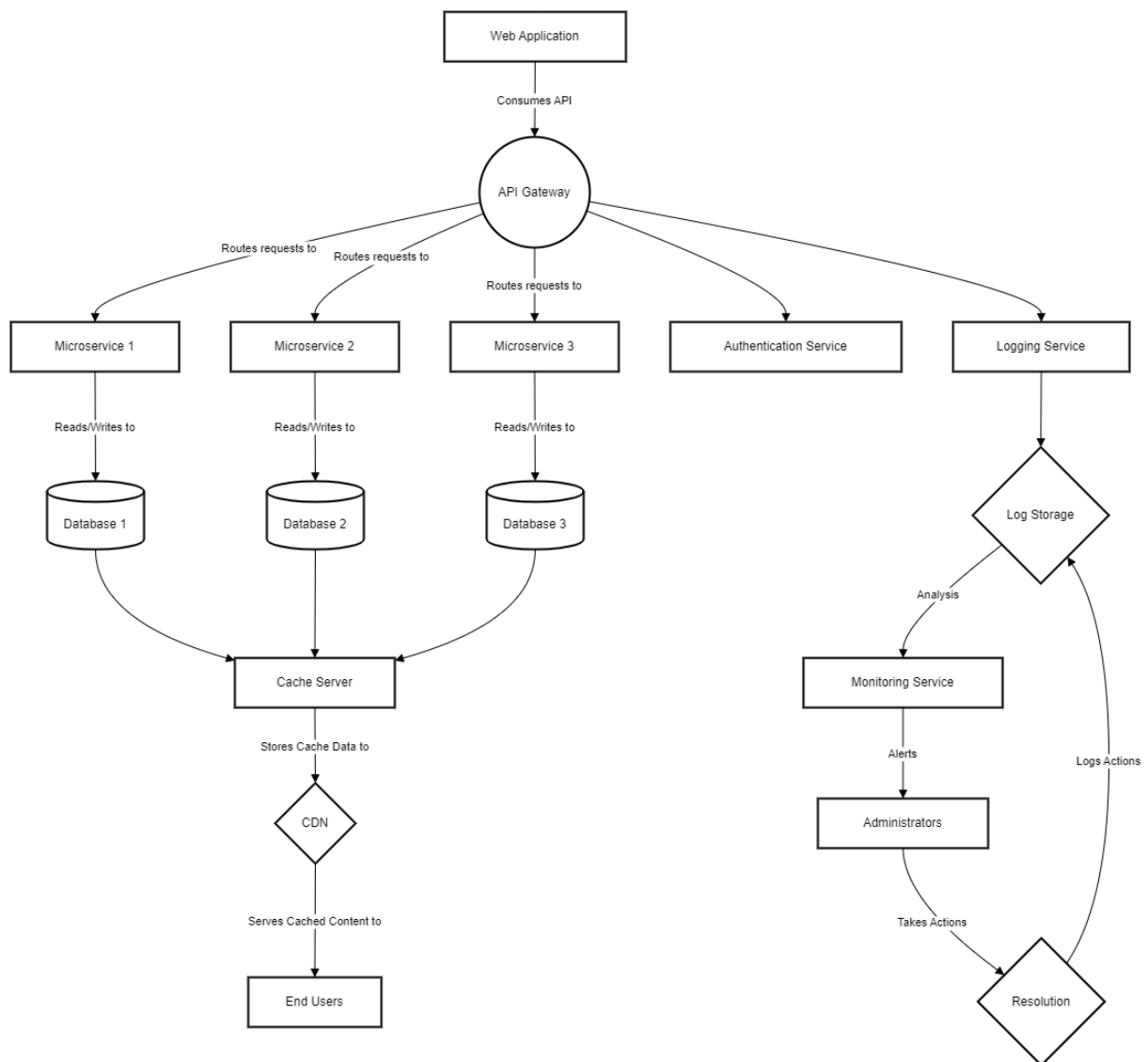
Operating System : WINDOWS 7 AND PLUS

Front – End : HTML, CSS, JAVASCRIPT

Back – End : PHP, MYSQL

CHAPTER 3

ARCHITECTURE DIAGRAM



CHAPTER 4

MODULE DESCRIPTION

1. Dashboard Module:

The Dashboard Module serves as the main interface for users, displaying a summary of their financial status. It features key metrics such as total income, total expenses, and current balance. Users can add new transactions directly through this module by entering details like description, amount, and transaction type (income or expense). The data is stored in a PHP-driven MySQL database, and the dashboard automatically updates to reflect changes, providing real-time insights into the user's financial health.

2. Transaction History Module:

The Transaction History Module allows users to view all recorded transactions in a structured format. It displays a detailed list of past transactions, with options to filter by current month or to view monthly summaries. Each entry includes essential information such as the transaction description, amount, and type (income or expense). This module pulls data from the backend using PHP, enabling users to easily track and review their financial activities over time.

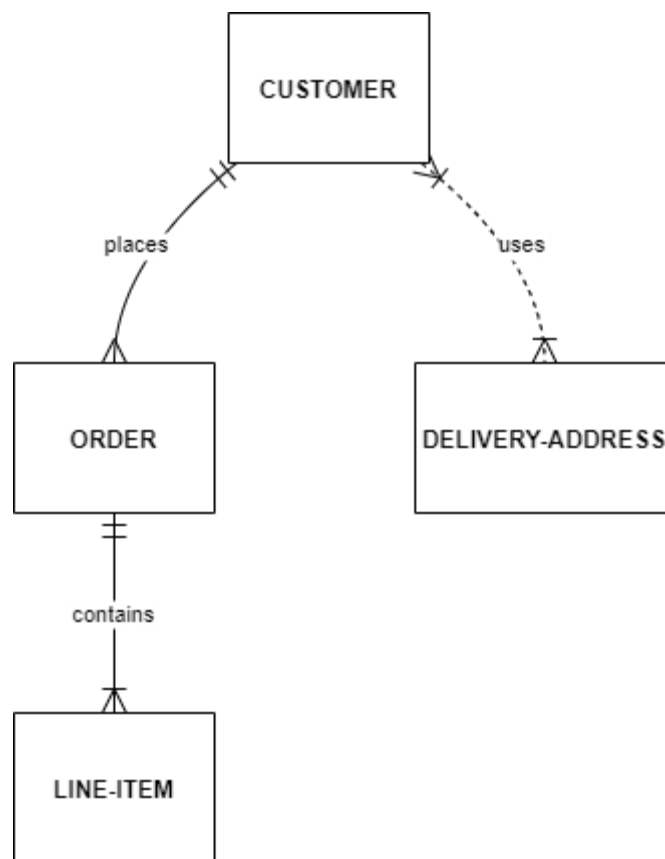
3. Transactional Analytics Module:

The Transactional Analytics Module offers graphical representations of financial data, focusing on monthly income and expenses. Utilizing charts and graphs, this module illustrates trends and patterns over time, helping users visualize their financial behavior. Data is retrieved from the database and processed to generate meaningful visual insights, allowing users to identify trends, compare monthly performance, and make strategic financial decisions based on these analyses.

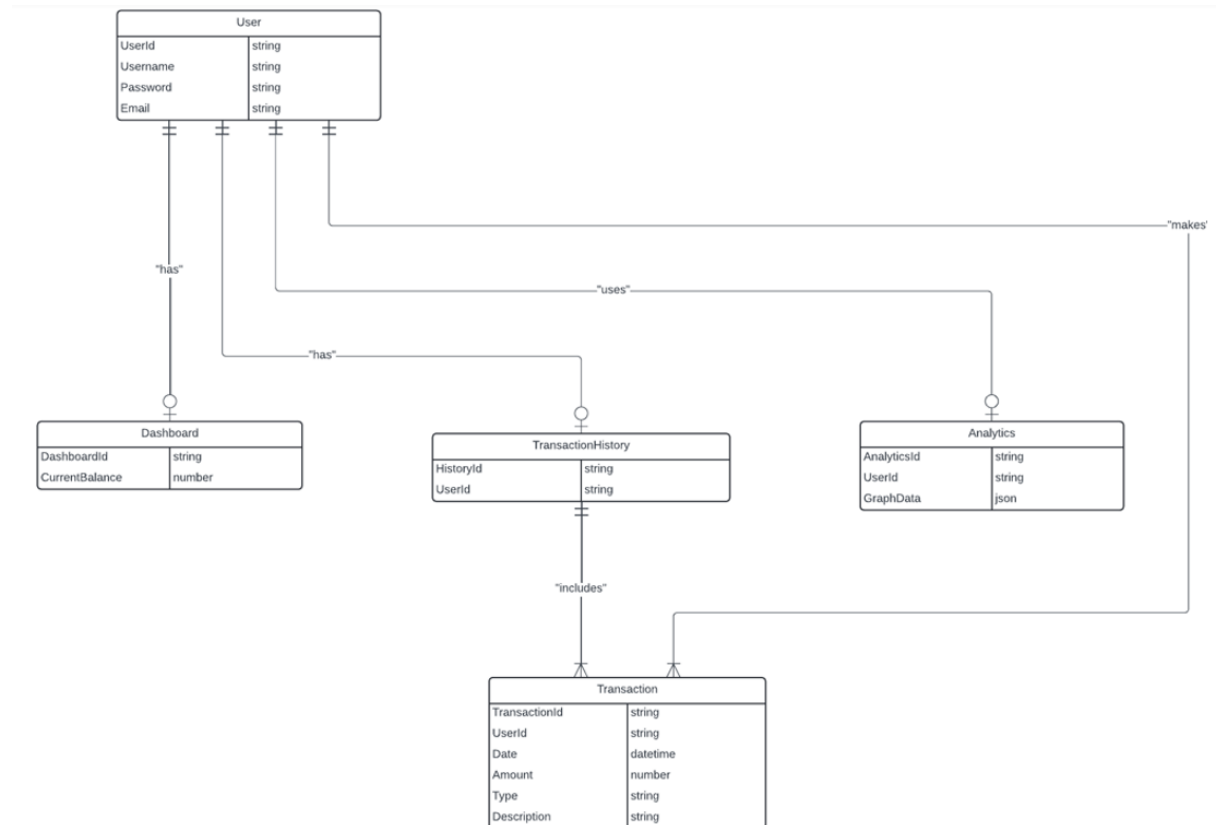
CHAPTER 5

SYSTEM DESIGN

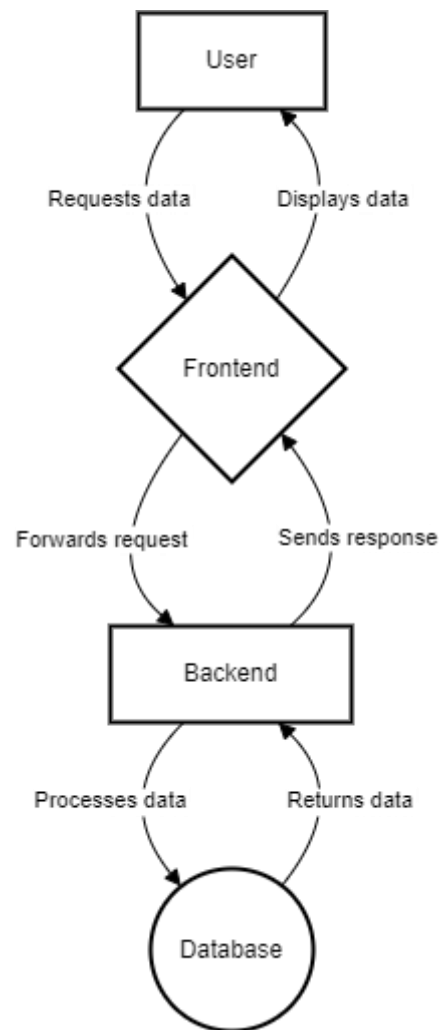
5.1 USE CASE DIAGRAM



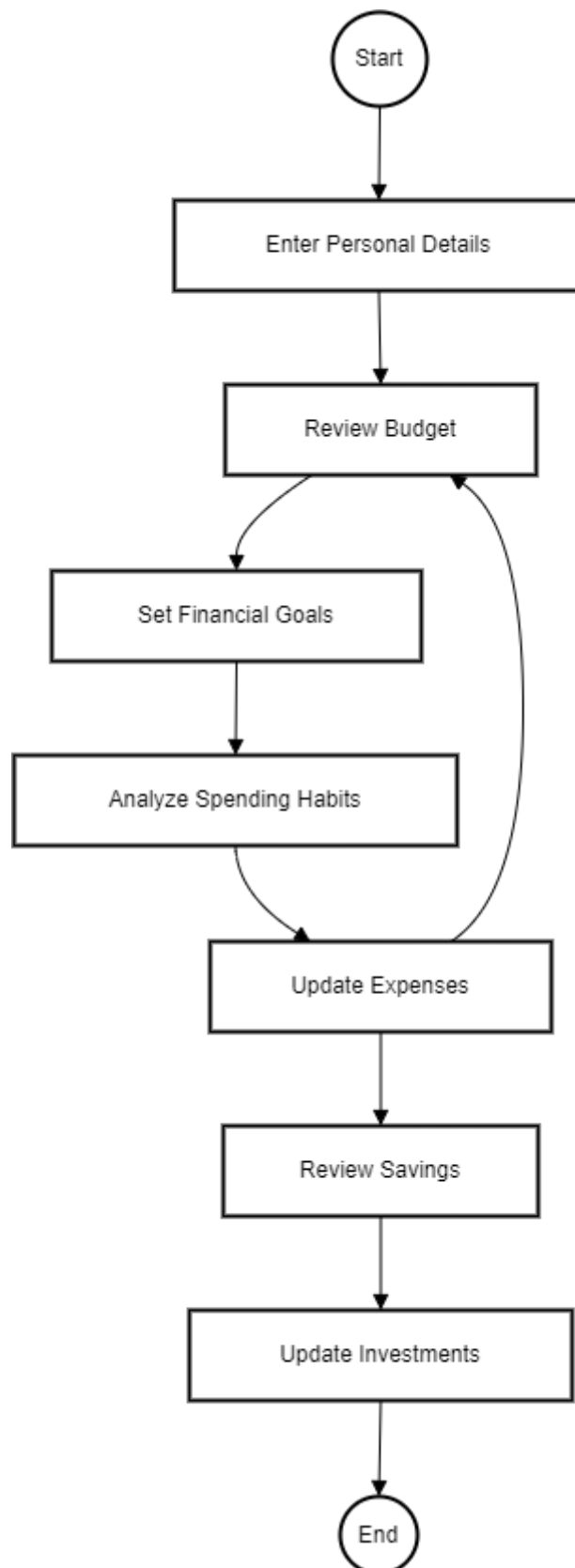
5.2 ER DIAGRAM



5.3 DFD DIAGRAM



5.4 ACTIVITY DIAGRAM



CHAPTER 6

SAMPLE CODING

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Transaction Analytics</title>
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
>
  <style>
    body {
      background-color: #f8f9fa;
      font-family: 'Arial', sans-serif;
      overflow-x: hidden;
    }
    nav {
      background: linear-gradient(90deg, #1d99be, #48c6e9);
    }
    nav ul {
      list-style: none;
      padding: 0;
      text-align: center;
    }
    nav ul li {
      display: inline;
      margin-right: 15px;
```

```
}  
nav ul li a {  
    color: white;  
    font-weight: bold;  
    text-transform: uppercase;  
    text-decoration: none;  
}  
nav ul li a:hover {  
    text-shadow: 0px 0px 5px rgba(255, 255, 255, 0.8);  
}  
header {  
    text-align: center;  
    margin-top: 2rem;  
    color: #1d99be;  
}  
header h1 {  
    font-size: 2.5rem;  
    font-weight: 600;  
}  
.form-group {  
    margin-top: 2rem;  
    text-align: center;  
}  
#month-select {  
    padding: 8px;  
    border: 2px solid #1d99be;  
    border-radius: 5px;  
}  
.chart-container {
```



```
    position: relative;
    width: 100%;
    height: 300px;
    margin-top: 2rem;
    border: 2px solid #1d99be;
    border-radius: 5px;
}
canvas {
    width: 100% !important;
    height: 100% !important;
}
</style>
<script src="https://cdn.jsdelivr.net/npm/chart.js"></script>
<script src="analytics.js" defer></script>
</head>
<body>
    <nav>
        <ul class="nav justify-content-center">
            <li class="nav-item">
                <a class="nav-link" href="dashboard.html">Dashboard</a>
            </li>
            <li class="nav-item">
                <a class="nav-link" href="history.html">Transaction History</a>
            </li>
            <li class="nav-item">
                <a class="nav-link" href="analytics.html">Transaction Analytics</a>
            </li>
        </ul>
    </nav>
```

```
<div class="container">
  <header>
    <h1>Transaction Analytics</h1>
  </header>
  <div class="form-group">
    <label for="month-select">Select Month:</label>
    <input type="month" id="month-select" class="form-control mx-auto"
style="max-width: 300px;">
  </div>
  <div class="chart-container">
    <canvas id="transactionChart"></canvas>
  </div>
</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
<script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.5.2/dist/umd/popper.min.js
"></script>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></s
cript>
</body>
</html>
```

CHAPTER 7

SCREEN SHOTS

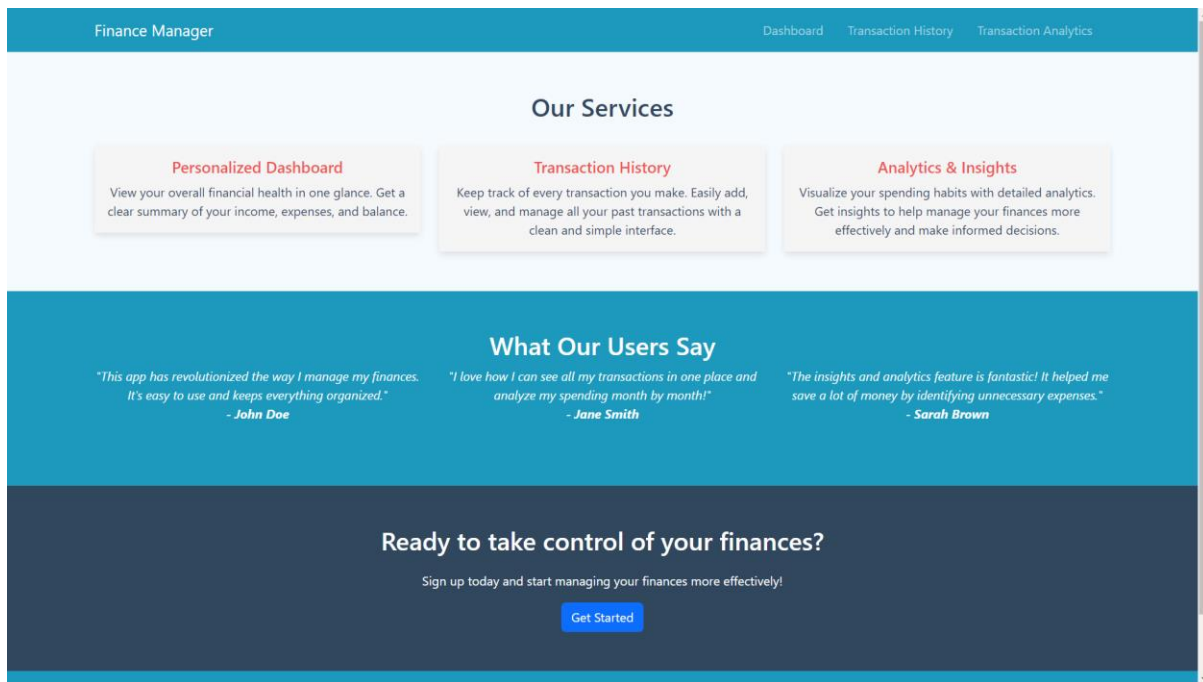


FIG.7.1.HOME PAGE

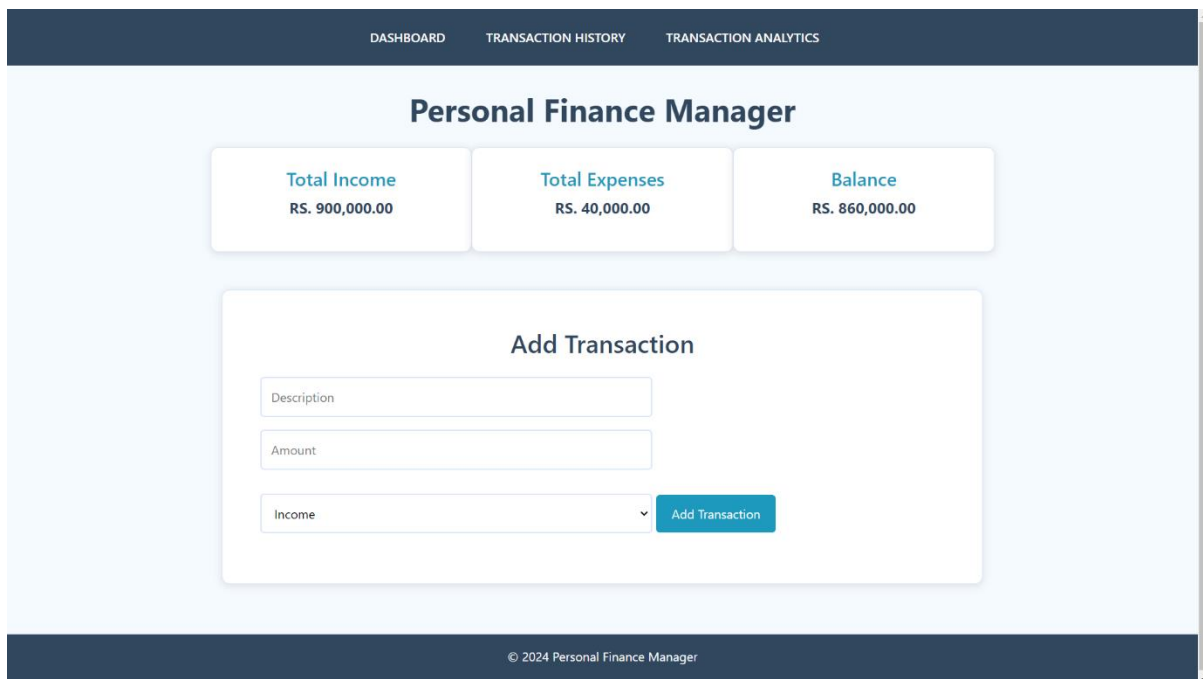


FIG.7.2.DASHBOARD

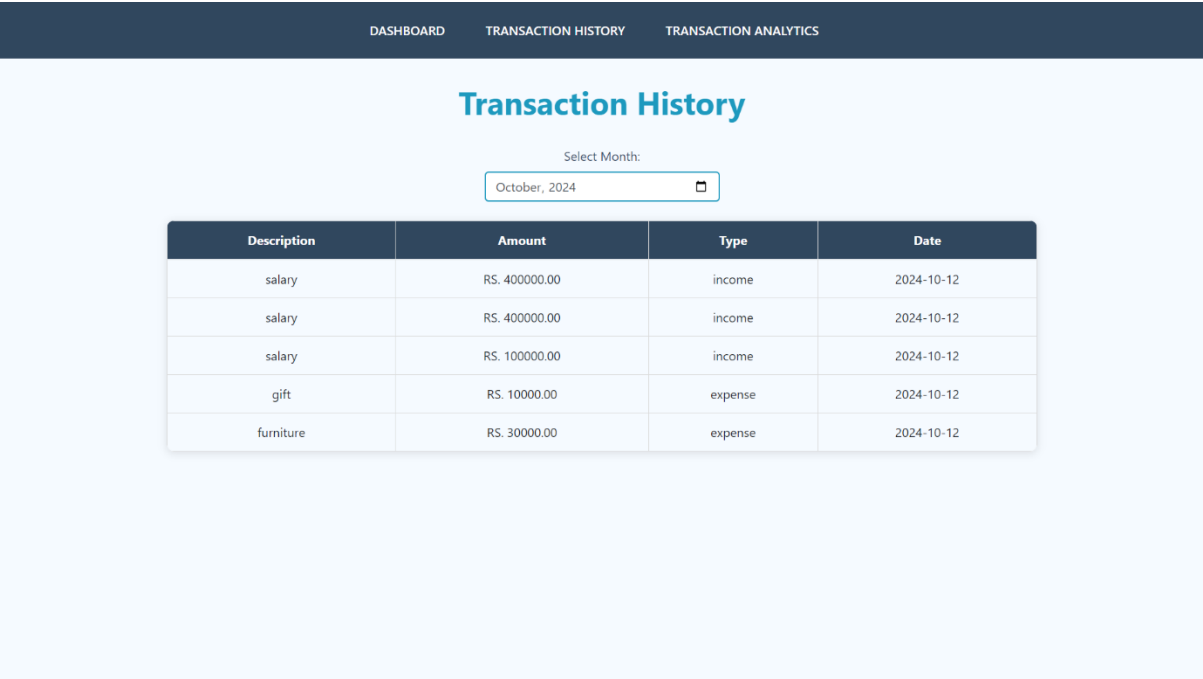


FIG.7.3.TRANSACTION HISTORY

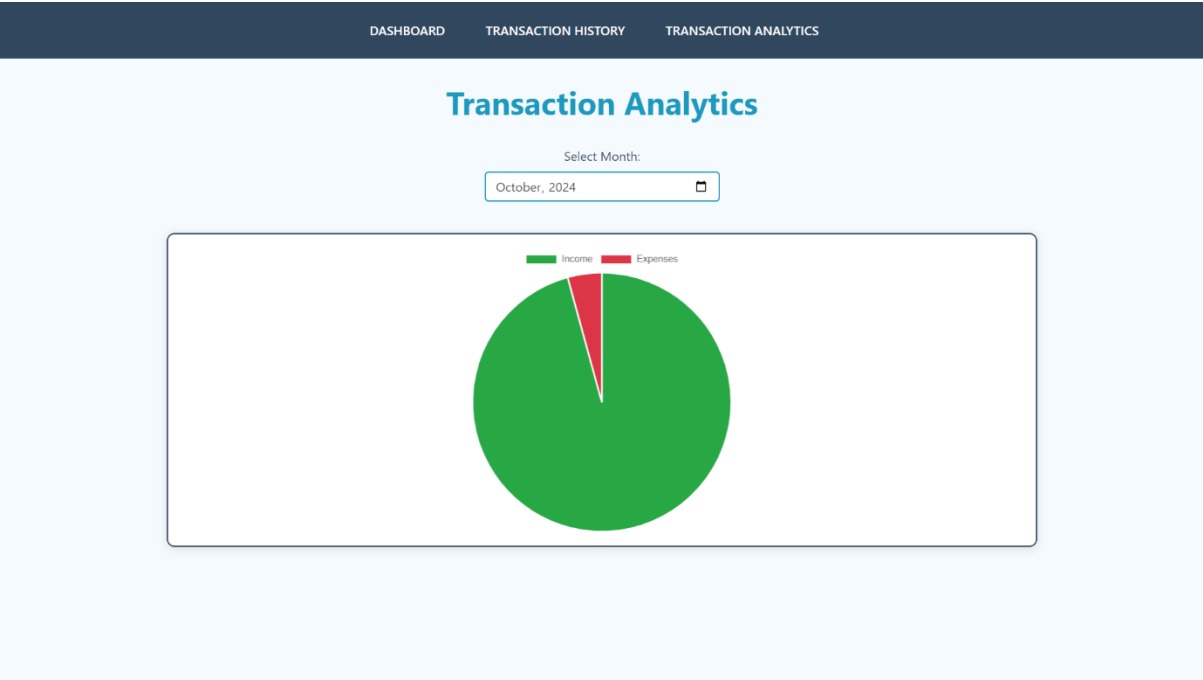


FIG.7.4.TRANSACTION ANALYTICS

CHAPTER 8

CONCLUSION

In conclusion, this personal finance management app offers a streamlined and user-friendly way for individuals to manage their finances effectively. With its intuitive interface and backend support powered by PHP and MySQL, the app provides a comprehensive solution for tracking income, expenses, and overall balance. The three key modules—Dashboard, Transaction History, and Transactional Analytics—offer distinct functionalities that enhance user engagement and understanding of their financial situation.

The Dashboard displays real-time updates of income, expenses, and the current balance, allowing users to add transactions that are seamlessly stored in the backend database. The Transaction History module lists all current transactions and organizes them monthly for easy tracking and review, ensuring users can monitor their financial activities over time. Meanwhile, the Transactional Analytics section visualizes spending patterns and financial summaries with graphical charts, helping users gain deeper insights into their financial behavior on a month-to-month basis.

By integrating HTML, CSS, and JavaScript for the front-end, along with PHP and MySQL for the backend, this app emphasizes both user experience and data management. Ultimately, it encourages better financial decision-making by giving users control and clarity over their personal finances, leading to more informed and strategic choices.

REFERENCES

1. HTML,CSS,JS– <https://www.w3school.com/>
2. PHP, MYSQL– www.youtube.com
3. Font Awesome Icons– www.fontawesome.com