Expense Budget Tracker – A web based Personal finance management System

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Abstract

The Expense Budget Tracker is a web-based application developed to help individuals efficiently manage their personal or small-scale financial activities. In today's digital world, tracking income and expenses is essential for maintaining financial stability. However, many people still rely on manual methods or scattered digital tools, which often lack organization, accessibility, and proper data handling .This project aims to solve this problem by providing a centralized platform where users can securely log in, add and manage their daily income and expenses, view categorized transaction history, and print financial summaries for record-keeping. The system is developed using widely-used web technologies such as HTML, CSS, JavaScript, PHP, MySQL, and Bootstrap. It provides a clean, responsive user interface and uses a backend database to store all user-related financial data reliably. Key modules include user authentication, income/expense management, print-friendly reports, and a structured dashboard to view financial activity. The application promotes ease of use, accessibility, and practical financial awareness among users .The project not only demonstrates the technical implementation of full-stack development but also showcases the usefulness of web applications in real-world financial tracking and budgeting. It is best suited for students, professionals, and individuals who prefer a digital yet lightweight solution for managing their personal finances.

Keywords Html, CSS, JavaScript, Bootstrap, JQUERY, PHP

Introduction

1. Overview

The *Expense Budget Tracker* is a web-based application that provides a simple and efficient platform for users to manage their daily income and expenses. With increasing digitalization and the need for better financial awareness, this system offers an easy-to-use solution for individuals to track their finances, organize records, and maintain budgeting discipline without relying on manual methods like notebooks or spreadsheets.

2. Necessity

Managing personal finance is a crucial life skill. Many people struggle with keeping track of their spending and often exceed their budgets due to a lack of real-time tracking. This application bridges that gap by offering a digital solution that enables users to input transactions regularly, view summaries, and make informed financial decisions. It eliminates errors caused by manual entries and ensures that data is securely stored and readily available.

3. Features

- User registration and secure login
- Add, update, and delete income and expense entries
- View daily, monthly, and yearly transaction history
- Print reports for budgeting and analysis
- Responsive and user-friendly interface built using Bootstrap
- Backend data handling with MySQL for storage and retrieval

4. History

Earlier, people used diaries or spreadsheets to maintain their budget records. As technology progressed, mobile and desktop applications emerged with various budgeting tools. This project focuses on a custom-built web-based solution that is lightweight, customizable, and accessible via any browser. It uses popular open-source technologies to ensure flexibility and ease of use.

Literature Survey

In recent years, personal finance management has gained significant importance due to the growing need for financial discipline among individuals. Several tools and applications have been developed to assist users in tracking their expenses and managing budgets effectively. Traditional methods such as maintaining handwritten logs or using spreadsheet software like Microsoft Excel were widely adopted for budgeting, but these often lack automation, accessibility, and real-time tracking.

Various mobile and web applications such as *Money Manager*, *Mint*, *Walnut*, and *Monefy* have emerged to provide automated solutions for tracking income and expenses. These platforms often come with features like graphs, alerts, automatic syncing with bank accounts, and data visualization. However, many of them are subscription-based or include unnecessary features for basic users, which may affect usability and accessibility for students or individuals with limited needs.

In contrast, the **Expense Budget Tracker Web Application** developed in this project offers a lightweight, customized, and user-friendly solution using open-source web technologies such as HTML, CSS, JavaScript, PHP, MySQL, and Bootstrap. It is specifically designed for individuals who want a simple yet efficient system to manually record their daily financial transactions and generate printable summaries. Unlike heavy commercial tools, this system prioritizes ease of use, fast loading times, and full control over user data without third-party dependencies.

The literature review highlights the gap in the availability of basic, cost-effective, and fully customizable budget tracking systems. This project aims to fill that gap by focusing on core functionalities while keeping the platform accessible, especially for students, freelancers, and individuals managing small-scale budgets.

Methods and Materials

1. Development Methodology

The development of this project followed a modular and step-by-step approach using the **Waterfall Model**. Each stage — from requirement gathering to design, development, testing, and deployment — was executed sequentially. This approach helped in ensuring a clear structure and smooth development flow.

2. Tools and Technologies Used

Technology	Purpose
HTML5	Used to design the structure and layout of web pages.
CSS3	Used for styling the web pages and improving visual aesthetics.
JavaScript	Used for adding client-side interactivity and validations.
PHP	Used for writing server-side scripts to handle form submissions and backend processing.

Technology	Purpose
MySQL	Used to create and manage the relational database where all user data, expenses, and incomes are stored.
Bootstrap	A front-end framework used to make the user interface responsive and mobile-friendly.
XAMPP	Used as a local server environment to run PHP and MySQL locally during development.
phpMyAdmin	A GUI tool used to interact with the MySQL database easily.

3. Working Method

- **Frontend Design**: All pages (login, dashboard, forms) were created using HTML, CSS, and Bootstrap. JavaScript was added to handle form validation and simple dynamic behavior.
- **Backend Development**: PHP handled form submissions, CRUD operations (Create, Read, Update, Delete), and interactions with the MySQL database.
- **Database Design**: Tables were created to store user credentials, expense and income data, and categories. Foreign keys and indexing were used for relational integrity.
- **Testing**: Manual testing was done for all modules to ensure proper functionality such as login/logout, record insertion, viewing reports, and printing.
- **Deployment**: The project can be deployed on any server supporting PHP and MySQL (like XAMPP or live hosting servers).

Results and Discussion

The **Expense Budget Tracker Web Application** was successfully developed and tested to perform core financial tracking operations. The application met its intended goals of simplifying income and expense management for individual users. The web interface allows users to add, view, and manage financial transactions smoothly. The data entered is stored in a structured database using MySQL and can be retrieved or printed as required.

1. Screenshots

There is a Screenshots of important modules such as the **Login Page**, **Dashboard**, **Add Expense Form**, and **Transaction Report** page were captured and included in the report. These visuals demonstrate the functionality, navigation flow, and interface design of the system.

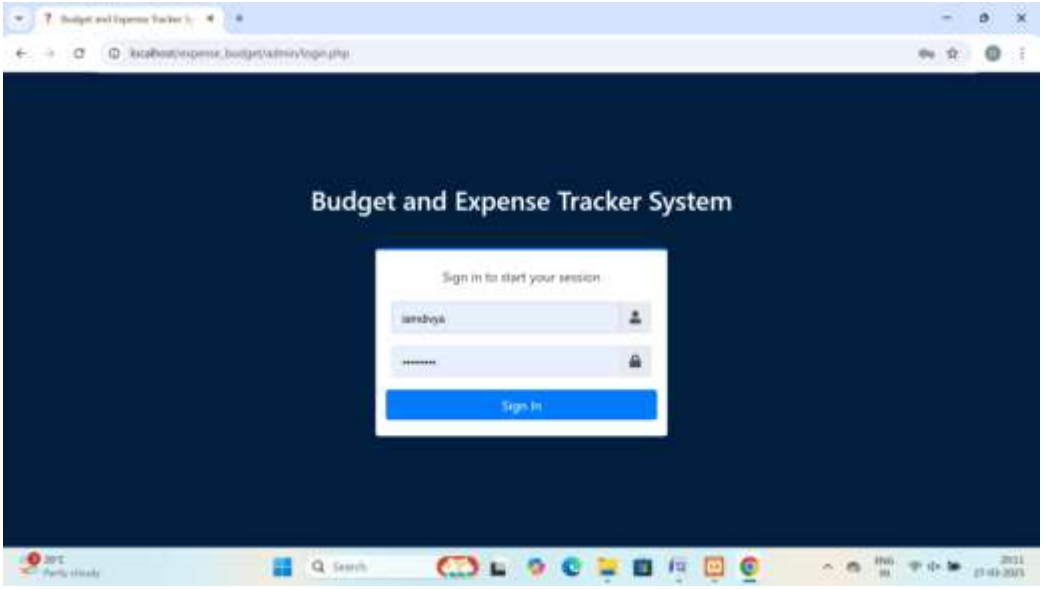

Fig.1.1 This shows Login page of our Expense Budget Tracker

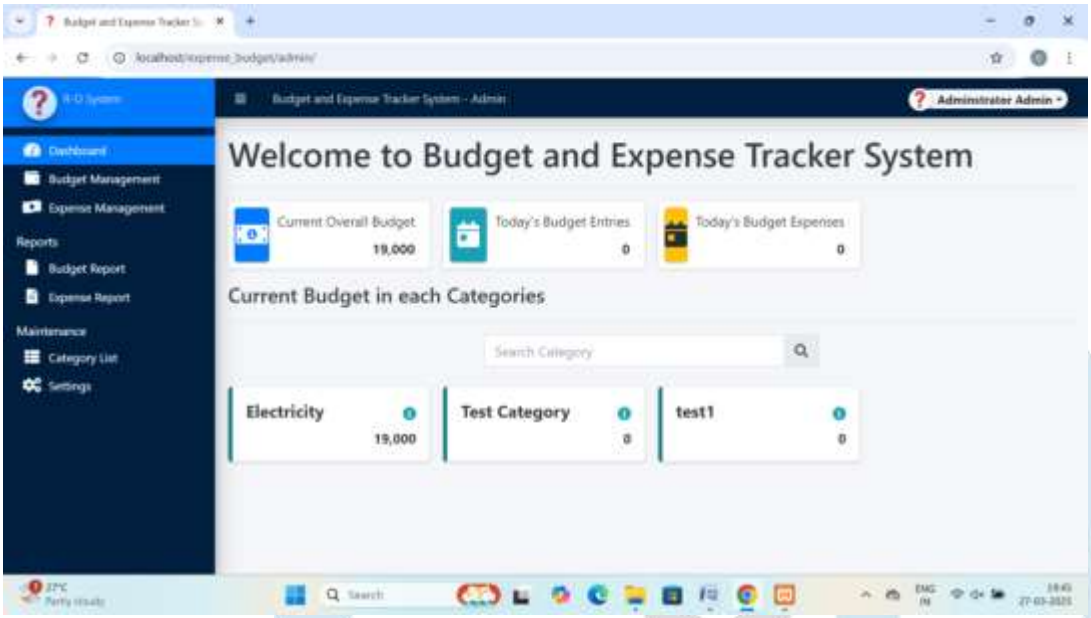

Fig.1.1 This shows Dashboard Of Our Expense Budget Tracker

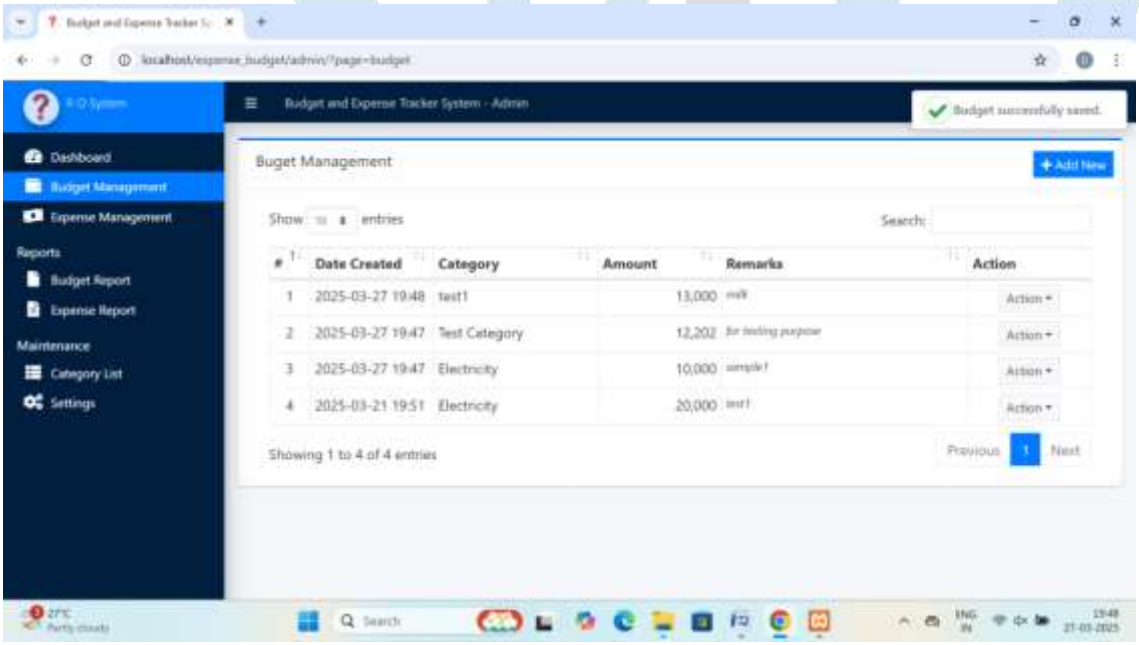

Fig.1.3 This shows Budget Management of our web app

2. Web App Quality

The application maintains a clean code structure and modular approach. It was built using reliable and stable web technologies such as HTML, CSS, JavaScript, PHP, and MySQL. The system functions well on major browsers and handles data efficiently without lag or error.

3. Reliability

All modules were manually tested with different data inputs. The application consistently stored, retrieved, and displayed accurate data. Validation checks ensured that incomplete or incorrect entries were avoided.

4. Usability

The system is easy to use even for non-technical users. The interface provides a guided experience for adding or managing transactions. Instructions are clear, and the flow is intuitive.

5. User-Friendly Design

Built with Bootstrap, the web app is fully responsive and adapts well to both desktop and mobile screens. Clear buttons, forms, and minimal distractions make the app easy to navigate.

6. Availability

Since this is a web-based system, it can be hosted on a local or cloud server and accessed via any web browser. There's no need to install software, which improves accessibility and portability.

7. User Friendliness

From login to report printing, every aspect of the app is designed to be straightforward. Icons, text, and layouts are simplified to reduce confusion and improve the user experience

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Conclusion

The **Expense Budget Tracker Web Application** successfully meets the primary objective of providing a simple, effective, and user-friendly platform for individuals to manage their income and expenses. Through the use of open-source web technologies like **HTML, CSS, JavaScript, PHP, MySQL,** and **Bootstrap**, the application allows users to securely record their daily transactions, view summaries, and print financial reports with ease.

This project demonstrates how digital tools can simplify personal finance management without the need for complex features or paid subscriptions. The system emphasizes usability, simplicity, and accessibility, making it ideal for students, freelancers, and individuals with basic budgeting needs.

Although the application does not include advanced features such as graphs or automatic alerts, it performs all essential functions with reliability and speed. The modular structure of the project allows future improvements, such as adding charts, mobile compatibility, or user analytics.

Overall, the project has achieved its goals and has potential for further development based on user feedback and real-world use cases.

References

- **https://www.javatpoint.com/**
- **https://www.w3schools.com/**
- **https://getbootstraps.com/**
- **https://tailwindcss.com/**
- **https://www.google.com/**