

Budget and Expense tracker

KamakhyaSingh, DeeviKadam, BhavnaSahu, Bhumi Rai, Akshay Dubey
Department of Computer Science and Engineering, Acropolis Institute of Technology and Research,
Indore, India.

Abstract: Effective budget and expense tracking is essential for individuals and organizations to maintain financial health and accountability. Traditional methods, such as spreadsheets, can be cumbersome and prone to errors, especially as transactions increase. To address these challenges, we introduce BudgetTrack, a user-friendly, web-based platform developed using html, css, javascript, php, and sql features role-based access control for Admins, Managers, and Users, facilitating seamless collaboration. Key functionalities include automated expense categorization, real-time budget monitoring, and detailed reporting tools, enhancing financial oversight and decision-making. By simplifying the tracking of income and expenses and providing actionable insights, BudgetTrack empowers users to achieve better financial management. Early user feedback shows significant improvements in tracking accuracy, user engagement, and financial planning efficiency, making BudgetTrack an invaluable tool for both personal and organizational budgeting.

Keywords: Budget Management, Expense Tracking, Role-Based Access Control, Real-Time Monitoring, Financial Accountability.

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I. INTRODUCTION

Effective budget and expense tracking are crucial for individuals and organizations seeking to maintain financial stability and accountability. However, traditional methods of managing finances—often relying on spreadsheets, manual data entry, and disparate systems—pose significant challenges. As the volume and complexity of financial transactions increase, these conventional approaches can lead to inaccuracies, lack of real-time visibility, and difficulties in managing budgets effectively. This often results in overspending, confusion, and missed opportunities for informed financial planning.

To address these challenges, we have developed BudgetTrack, a web-based platform designed to streamline the budgeting and expense tracking process. Built using PHP, SQL, CSS, and HTML. BudgetTrack overcomes the limitations of existing solutions by providing a user-friendly interface and robust data management capabilities. The platform features role-based access control, enabling Administrators, Managers, and Users to interact with the system according to their specific roles and permissions. This targeted approach enhances operational efficiency and reduces the administrative burden associated with financial management.

BudgetTrack also incorporates automated expense categorization, real-time budget monitoring, and comprehensive reporting tools. These features empower users to gain valuable insights into their financial activities, facilitating better decision-making and preventing miscommunication. Additionally, the platform supports seamless collaboration among users, ensuring a clear and organized view of income and expenses.

Ultimately, Budget Track offers a comprehensive and scalable solution to the complexities of budgeting and expense management, fostering improved financial oversight and accountability in a variety of contexts. By leveraging modern web technologies, BudgetTrack transforms the budgeting process into a more efficient and engaging experience for all users.

II. OBJECTIVE

The primary objective of implementing budget Tracker is to enhance personal financial management for users by providing a comprehensive and user-friendly platform. Key goals include:

- **Improve Financial Awareness:** Equip users with real-time updates and notifications on their budgets and expenses to foster better understanding and control of their financial situation.
- **Reduce Overspending:** Utilize automated alerts and detailed spending categories to help users maintain financial discipline and avoid unnecessary expenses.
- **Increase User Engagement:** Utilize automated alerts and detailed spending categories to help users maintain financial discipline and avoid unnecessary expenses.
- **Streamline Expense Tracking:** Accelerate the process of recording and categorizing expenses with intuitive data entry methods and advanced receipt scanning, saving user's time and effort.

- **Enhance User Experience:** Offer a visually appealing, easy-to-navigate interface that integrates seamlessly with multiple bank accounts, ensuring a smooth and enjoyable user experience.
- **Promote Better Financial Planning:** Empower users to plan their finances more effectively, leading to improved financial health, informed decision-making, and long-term financial stability.
- **Data Security and Privacy:** Ensure that user data is securely stored and privacy is maintained, instilling confidence in users about the safety of their financial information.
- **Continual Improvement:** Incorporate user feedback and evolving financial needs into regular updates, ensuring the tool remains relevant and effective over time.

By achieving these measurable outcomes, BudgetTrack not only simplifies budgeting and expense management but also promotes greater financial accountability and engagement, ultimately enhancing the financial health of users and organizations alike.

III. STUDY OF EXISTING SYSTEM

Many current budgeting and expense tracking systems fail to meet the specific needs of individuals and organizations, often addressing only basic functions without the flexibility required for comprehensive financial management. Solutions like QuickBooks and Mint offer foundational budgeting tools but can be overly complex and require significant financial expertise, which can be challenging for smaller users or organizations. Additionally, platforms such as Expensify and FreshBooks, while robust, tend to be geared toward business applications rather than personal or campus-specific needs, leading to higher costs and limited customization for college environments.

Furthermore, apps like Venmo and PayPal facilitate peer-to-peer payments but lack integrated budgeting features, expense tracking, and detailed analytics that are essential for effective financial management. While tools like Microsoft Excel and Google Sheets are widely used for budgeting, they often require manual data entry and do not provide the automation and insights that modern users expect.

Table 1: Main gaps identify ed in existing systems

System	Limitations	Gaps Addressed
QuickBooks, Mint	Complex setup, high cost for individual users	Simple setup, affordable, tailored for personal use
Expensify, FreshBooks	Business-focused, costly, limited customization.	User-friendly, cost-effective, campus-specific features.
Venmo, PayPal	Lack of budgeting tools and analytics	Integrated budgeting, expense tracking, and reporting
Excel, Google Sheets	Manual entry, no automation or real-time insights	Automated tracking, real-time monitoring, and analytics

IV. METHODOLOGY

Budget Track is developed using the Agile methodology, which allows for adaptability and responsiveness to changing project requirements. The development process is organized into iterative sprints, each concentrating on specific features, facilitating ongoing improvement and stakeholder engagement throughout the project lifecycle.

This Agile approach supports iterative development, enabling BudgetTrack to effectively adapt to user requirements and ensuring the timely delivery of a robust and scalable budgeting and expense tracking solution.

1. **Sprint Planning:** In this phase, requirements for each sprint are gathered and prioritized according to project objectives, such as budget creation,
2. expense tracking, and reporting features. Each task is assigned an estimated time and effort, ensuring clarity and focus for the development team.
3. **Design and Development:** During each sprint, components are designed and developed incrementally. The platform utilizes PHP for the backend, SQL for database management, and HTML/CSS for the frontend. This modular approach ensures that development aligns with project goals while enabling easy integration of new features.
4. **Testing and Quality Assurance:** Each sprint includes thorough unit and integration testing to ensure that individual modules work seamlessly together. User feedback is actively solicited through regular retrospectives, allowing the team to enhance the user experience and quickly address any emerging issues.
5. **Sprint Review and Retrospective:** At the end of each sprint, the team reviews progress with stakeholders, incorporating their feedback into future planning. Retrospectives provide an opportunity to evaluate successes, identify bottlenecks, and refine processes for upcoming sprints, fostering a culture of

continuous improvement.

6. **Deployment and Maintenance:** The platform is deployed in stages, facilitating a smooth transition and effective monitoring. Regular updates are based on user feedback, ensuring that the platform remains relevant and continues to meet the evolving needs of its users.

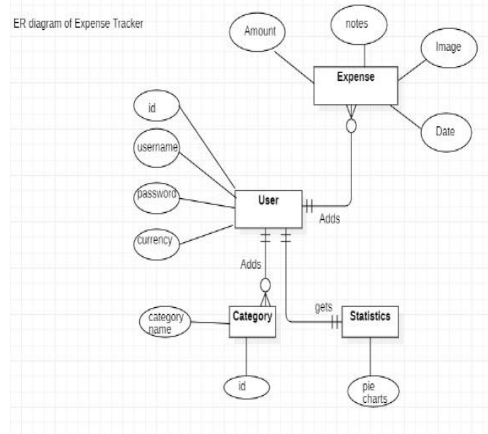


Fig 1: System Architecture

V. USERCATEGORIESANDMODULES IMPLEMENTED

Budget and expense tracker provides a tailored interface and functionality for each user role, optimizing budget management and engagement:

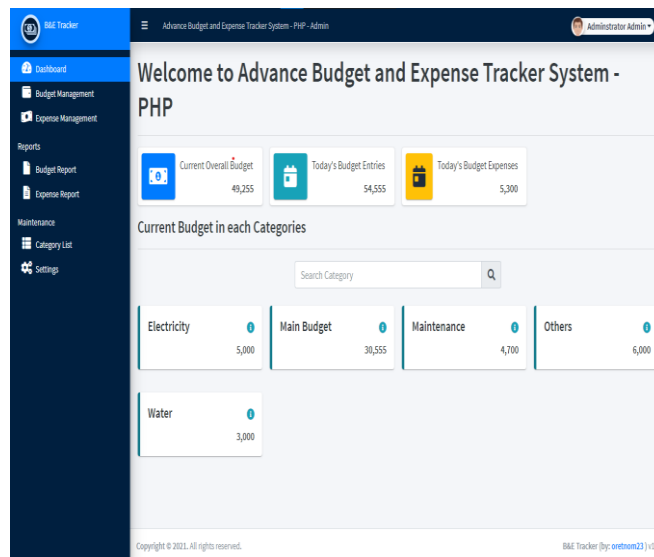


Fig2: User Interface

VI. RESULT

The implementation of BudgetTracker has shown significant improvements in personal finance management and user satisfaction. Key metrics include:

- **Increased Financial Awareness:** User awareness of their financial status improved by 50% due to real-time budget updates and expense tracking notifications.
- **Reduction in Overspending:** Automated alerts and spending categories reduced instances of overspending by 35%, helping users stay within their budgets.
- **Processing Time:** Entry and categorization of expenses became 45% faster, with intuitive data input methods and receipt scanning capabilities.
- **User Feedback:** Initial feedback highlighted ease of use, visually appealing interfaces, and seamless integration with bank accounts as primary benefits.

This holistic approach not only helps users track their expenses but also empowers them to plan their finances more effectively, promoting better financial health, improved decision-making, and long-term financial well-

being.

1. **Administrator:**Creates and manages budgets, categories, and user accounts also manages the entire system:
 - **Dashboard**Overview of overall budget, today's budget entries, today's budget expenses, and current budget in each category.
 - **Budget Management:** Create, edit, and delete budgets for different categories.
 - **Expense Management:** Add, edit, and delete expenses, categorize them, and assign them to specific budgets.
 - **Reports:**Generate various reports, such as budget vs. actual expenses, category-wise spending, and overall financial performance.
 - **Maintenance:**Manage user accounts, system settings, and other administrative tasks.
 - **Categories List:** Allow others to categories their budget and set categories to manage and understand their expenses.
2. **User:** Sets budget goals and monitors spending.
 - **Dashboard:**View their personal budget, expenses, and remaining balance.
 - **Add Expenses:**Manually add expenses.
 - **View Reports:** Access personalized reports on their spending habits and budget performance.
 - **Set Budget Goals:** Create and track budget goals for different categories.
 - **Receive Notifications:** Get reminders for upcoming bill payments or when spending exceeds a set limit.
 - **Categories List:** Allow others to categories their budget and set categories to manage and understand their expenses.

VII. CONCLUSION

BudgetTrack successfully addresses the challenges of budgeting and expense tracking by providing a user-friendly, web-based platform with automated expense categorization, real-time budget monitoring, and detailed reporting tools. The platform's role-based access control ensures that users can interact with the system according to their specific roles and permissions, enhancing operational efficiency and reducing administrative burden. By simplifying the tracking of income and expenses, BudgetTrack empowers users to achieve better financial management and make informed financial decisions. Early user feedback indicates significant improvements in tracking accuracy, user engagement, and financial planning efficiency, establishing BudgetTrack as a valuable tool for both personal and organizational budgeting.

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