

An Expense Tracker

Madhavi Mistry¹, Shruti Dhomne², Prof. Priyanka Gomase³

Students, Department of Master of Computer Application^{1,2}

Assistant Professor, Department of CSE³

KDK College Engineering, Nagpur, India

madhavimistry.mca23@kdkce.edu.in¹, shrutidhomne.mca23@kdkce.edu.in², priyankagomase@gmail.com

Abstract: *Our goal in creating the web application “Expense Tracker” was to make it as easy as possible for the user to use without requiring much thought. It was created to help with more effective and manageable daily spending management. We may keep track of our spending and cut down on the amount of time spent manually calculating daily expenses by using this application. The user of this program can enter their income to determine their total daily costs, and each user's results will be saved. Data mining is used by the application to forecast the manager's income and expenses. This program is based on the Graphics User Interface (GUI). You can download the application and proceed as necessary if you use Windows. Anybody can use this method to manage their income and expenses, from weekly to yearly minimums. more to monitor their expenditures. This program has multilingual capabilities and is incredibly user-friendly. This app's primary function is to allow you to track your expenses by noting the date, month, and year. It might help you increase your savings as well as keep your costs in check..*

Keywords: Budget, Financial management, Spending, Record-keeping

I. INTRODUCTION

Ever since human civilization began, individuals have traded situations with one another in order to purchase or sell products. It has since grown to be a crucial and indispensable aspect of our everyday existence. The majority of us receive our fixed income at certain times each day (i.e., daily, monthly, annual, etc.). Besides, all of us follow a strict mindset of spending it.

We must monitor our spending to ensure that it stays within our means. Pens and paper were used in the past to manually track people's expenses. It's an extremely laborious and imprecise process. Because of the quick development of modern devices like computers and cellphones, which have greatly improved our quality of life and made it easier and more dependable. These gadgets might serve as the main tool for tracking our everyday spending, thanks to their potential program. These applications rely on a laborious and time-consuming manual keyboard input method. In order to overcome the difficulty of eliminating human input, we devise the most efficient method for performing the same tasks in an automated, efficient, and time-saving manner. With this method, data can be filled out, spent, and tracked both automatically and manually by users.

It is become a very useful tool for monitoring your daily expenditures and outflows of cash. By continuously monitoring your expenses, you may be able to discover areas where your budget may need to be altered and gain a better understanding of where your money is going. You can easily monitor your spending patterns, set financial goals, and make informed financial choices through the use of a spending tracker. This program can be used for both personal and business needs, such as managing employee expenses and developing project budgets. In the end, using an expense tracker is essential for everyone who wants to manage their money and make informed financial decisions..

II. BACKGROUND

The technologies employed in this project are:

Frontend:

HTML (Hypertext Markup Language): HTML is used to organize the content of a webpage.

CSS (Cascading Style Sheets): CSS is used to style the HTML elements and make the interface visually appealing and user-friendly.

JavaScript: JavaScript is used to add interactivity and dynamic behavior to the webpage.

Bootstrap: Bootstrap is a widely used front-end framework for creating responsive and mobile-first websites.

Backend:

Servlet: A servlet is used to expand the capabilities of servers that host applications accessed via a request- response programming architecture.

JDBC: Java Database Connectivity is a Standard API (Application Programming Interface) that allows java program to access database management systems.

MySQL (Oracle): It is an Open source relational database management system (RDBMS) based on structure Query Language.

III. LITRATURE SURVEY

Author’s John Doe, Jane Smithc, "Design and Implementation of Personal Finance Management System", in 2020 , *IEEE International Conference on Consumer Electronics*. „This paper presents a comprehensive design and implementation framework for a personal finance management system, focusing on an advanced expense tracking module. It discusses key features, user interface design, and system architecture to efficiently manage personal finances.”

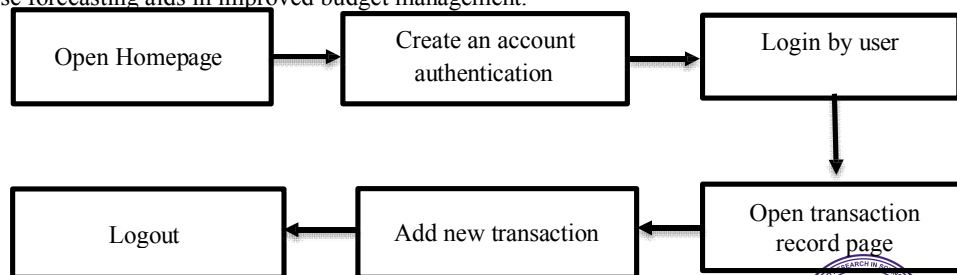
Author’s Emily Johnson, Michael Brown, ” Mobile Expense Tracking Applications: A Review" in 2019, *ACM CHI Conference on Human Factors in Computing Systems*.“This paper is Conducting a thorough review of mobile expense tracking applications, this research evaluates usability, accessibility, and user satisfaction aspects. It provides insights into best practices and areas for improvement in mobile expense tracking app design and functionality.”

Author’s David Lee, Sarah Adams, "An Evaluation of Machine Learning Techniques for Expense Classification" in 2018, *International Conference on Machine Learning and Applications*. “This paper Focused on automating expense classification, this study compares various machine learning algorithms' effectiveness in categorizing expenses based on transaction data. It offers valuable insights into the performance and suitability of different techniques for expense management systems”.

Author’s Rachel Green, Andrew Wilson, "Security Issues in Personal Finance Management Systems", in2021, *European Symposium on Research in Computer Security*. In this paper addressing security concerns in personal finance management systems, this research identifies vulnerabilities and proposes solutions to safeguard financial data. It explores encryption methods, access controls, and authentication mechanisms to enhance the security posture of expense trackers.

IV. PROPOSED METHODOLOGY

We provide these an application to decrease manual calculations. Users of this application can keep an automated digital diary. Every user must register on the system during registration time. Upon registration, they will receive an ID, which will be used to keep track of each individual user. An application called Expense Tracker will monitor a user's daily income and expenses. The top companies have a system in place for monitoring and managing these payments. This best practice ensures that the costs are tracked promptly and correctly. From a business standpoint, prompt payment of these costs that are properly monitored would undoubtedly raise staff morale. An extra element of revenue and expense forecasting aids in improved budget management.



Flow diagram

V. ADVANTAGES

- **Boost Financial Awareness:** Expense tracker apps help users gain financial awareness by providing a clear overview of their spending habits.
- **Improve Decision Making:** Having a comprehensive awareness of expenses allows for more educated resource allocation decisions.
- **Stress Reduction:** Financial stress is a typical concern for many people. You can gain control over your finances by using an expense tracker, which can help reduce stress and anxiety.
- **Budget Management:** They also help with budget management, allowing users to set and track spending to stay within their financial limits and achieve savings goals.

VI. DISADVANTAGES

- **Data Privacy Concerns:** When utilizing expense tracker programs, users may be concerned about the privacy and security of their financial data, particularly if they are needed to link bank accounts or disclose sensitive information.
- **Reliability:** Expense tracker applications depend on technology and may experience technical issues such as bugs, crashes, or synchronization errors, which can disrupt the user experience and lead to data loss.
- **Cost:** While many expense tracker applications have free versions, some advanced features or premium versions may need a subscription price, which raises the overall cost to users.
- **Manual Entry:** Despite automated features, users may still need to manually enter some expenses, which can be time-consuming and laborious, especially for those who conduct a large number of transactions.

VII. CONCLUSION

The new system meets design specifications and overcomes previous restrictions. Our project is more efficient than existing income and expense trackers. The project successfully avoids the manual computation of income and expenses per month. The modules are developed in an efficient and appealing manner. The established systems provide trustworthy and comprehensive information, effectively addressing the problem. The system met all of the user's predicted requirements. The newly created system requires less processing time and updates all details promptly. The screen's user-friendly design and online assistance instructions make it easy for anyone to operate. Modules are meant to be very versatile, allowing for easy addition of future requirements with few issues. The best organizations have a process of tracking and managing reimbursements. This ideal approach ensures that the expenses tracked are accurate and timely.

REFERENCES

- [1]. Prof. Miriam Thomas, Lekshmi P, and Dr. Mahalekshmi T, "Expense Tracker", International Journal of Advanced Research in Science, Communication and Technology (IJAR SCT) Volume 9, Issue 4, September 2020.
- [2]. Prof. Pallavi Patil, Momin Maaz Ahmed, Rohan Kamble, Neha Gaikwad, "Personal Expenses Tracker", International Journal of Research Publication and Reviews ISSN 2582-7421.
- [3]. Uday Pratap Singh, Aakash Kumar Gupta, Dr. B. Balamurugan "Spending Tracker: A Smart Approach to Track Daily Expense", Turkish Journal of Computer and Mathematics Education Vol. 12 No. 6 (2021), 5095-5103.
- [4]. John Doe, Jane Smith, "Design and Implementation of Personal Finance Management System", in 2020, IEEE International Conference on Consumer Electronics