International Scientific Journal of Engineering and Management
Volume: 03 Issue: 12 | Dec – 2024
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata
ISSN: 2583-6129
DOI: 10.55041/ISJEM02167

Tally Tracking System

1st V.Udhayakumar, 2nd D.Malathi , 3rd Deepika L

Associate Professor, Department of computer Applications, Sri Manakula Vinayagar Engineering College (Autonomous), Puducherry
605008, India,
udhayakumar.mca@Smvec.ac.in
Post Graduate student, Department of computer Applications, Sri Manakula Vinayagar Engineering College (Autonomous), Puducherry
605008, India
desingumalathi371@gmail.com
Post Graduate student, Department of computer Applications, Sri Manakula Vinayagar Engineering College (Autonomous), Puducherry
605008, India
deepit0114@gmail.com

ABSTRACT

In today's fast-paced world, effectively managing personal expenses is crucial for maintaining financial stability and achieving long-term goals. However, many existing systems lack a user-friendly interface to efficiently track and categorize expenses. Users often struggle to enter expense details manually and visualize their spending trends over time. These limitations can make it difficult to identify spending patterns and create effective financial plans. Without proper categorization and reporting features, users may fail to track their expenses accurately, which leads to poor financial decisions.

To overcome these drawbacks, the new system features a modern, user-friendly website built using Python and Flask. This system allows users to easily enter their expense details, including the category of the expense, such as food, entertainment, transportation, or utilities. The website is designed to ensure that users can quickly input their daily expenses, making it more accessible and intuitive. With Flask as the backend framework, the system ensures efficient processing of user data and seamless integration of the front-The end interface provides a smooth experience for users who are not necessarily tech-savvy.

One of the key features of the proposed system is its ability to visualize the entered data in various formats, allowing users to view their expenses on a day-by-day, month-by-month, or year-by-year basis.

The system uses interactive graphs and charts to display data, making it easy for users to track their spending patterns over time. In addition, users can generate detailed reports based on their selected timeframe, which provides insights into their financial habits and helps facilitate better decision-making. This solution empowers users to take control of their finances by providing a clear, graphic representation of their expenses and an easy way to generate periodic reports, thereby enhancingoth their financial planning and awareness.

ISSN: 2583-6129
DOI: 10.55041/ISJEM02167

Keyword

Key features will include expense categorization (e.g., food, transportation, and bills), real-time tracking, income tracking, and the ability to visualize spending trends through graphs and pie charts. Additionally, the application will support multiple user roles, such as administrators, managers, and staff, each with different.

1 . INTRODUCTION

Web development is a domain focused on building and maintaining websites and web applications that run on internet browsers. It encompasses a wide range of tasks, including designing user interfaces, coding functionality, and ensuring a seamless user experience. This field involves working with both front-end and back-end technologies to create dynamic and responsive web solutions. Front-end development focuses on the visible aspects of a website, using technologies like HTML, CSS, and JavaScript to craft layouts, styles, and interactive elements.

Back-end development, on the other hand, deals with server-side operations that power the functionality of web applications. This involves creating and managing databases, APIs, and server logic using programming languages such as Python, PHP, Java, or Node.js. Developers in this area ensure that data flows smoothly between the front end and back end, enabling features like user authentication, content management, and real-time updates..

The technologies accelerate development processes and ensure scalability, security, and cross-platform compatibility. The domain also emphasizes performance optimization, responsive design, and accessibility to cater to diverse user needs. Web development remains a vital and evolving field, driving innovation in how people interact with technology on the internet.

2 . LITERATURE SURVEY

[1] Expense Tracker Aman Garg1, Mukul ,Goel Sagar Mittal , Mr. Shekhar Singh [1] The Expense Tracker is a versatile web application designed to help users effectively manage their personal and business finances. Acting as a digital diary, this application enables users to record and monitor their daily income and expenses effortlessly. Accessible from anywhere with an internet connection, the system allows users to add expenditures instantly, providing real-time financial tracking and management.

By integrating mobile wallet transactions securely, the application prioritizes privacy while offering seamless import functionality. Additionally, users can track the duration of use for specific products, gaining deeper insights into their spending patterns. This application revolutionizes traditional methods of expense management by automating calculations and generating comprehensive analyses.

It offers monthly and yearly comparisons of expenditures, helping users identify areas where they spend the most. Detailed graphical visualizations further enhance understanding, allowing users to make informed decisions about budgeting and saving. By offering such advanced features, the Expense Tracker empowers users to gain control over their finances and promotes better planning for future expenditures.

[2] Expense Tracker Prof Miriam Thomas , Lekshmi P , and Dr. Mahalekshmi T [2] The Expense Tracker web application is a robust tool designed to streamline daily expense management by automating calculations and organizing financial data effectively. By reducing the need for manual record-keeping and computations, the application enables users to track their expenditures and income efficiently. Users can input their income and daily expenses, which the system processes and stores securely for personalized financial tracking.

A unique feature of this application is its ability to predict income and expenses using data mining techniques, offering valuable insights for better financial planning. The application includes a role-based access system with three types of logins: admin, manager, and staff, each with specific privileges. The

ISSN: 2583-6129
DOI: 10.55041/ISJEM02167

admin has comprehensive control, allowing them to add, edit, or delete managers and staff members, and generate custom financial reports for the organization.

Once the data is submitted, it is sent to the manager for verification. This hierarchical structure ensures that all financial entries are accurate and approved at each level. By incorporating predictive analysis, role-based privileges, and a streamlined workflow, the Expense Tracker application delivers an efficient and user-friendly platform for managing finances across personal and professional contexts.

[3] Personal Expenses Tracker Prof. Pallavi Patil, Momin Maaz Ahmed, Rohan Kamble, Neha Gaikwad [3] An expense tracker is a valuable tool designed to help individuals manage their finances effectively by monitoring spending habits. It can be implemented using various mediums like notebooks, spreadsheets, or mobile applications, catering to diverse user preferences.

By regularly reviewing their tracked expenses, users can compare actual spending against their budgets, identify overspending areas, and make informed adjustments to achieve financial goals. The visual representation of spending patterns offered by modern expense trackers provides actionable insights, promoting better financial discipline. Whether for personal or business use, an expense tracker simplifies budget management, fosters accountability, and empowers users to take control of their finances, ensuring smarter decision-making and long-term financial stability.

[4] Expense Tracker Mr. Dhrupesh Savadia (Mentor) Mr. Muhammad Hassan Noorsumar, Mr. Sangram S Supalkar [4] The PHP Expense Manager is a powerful tool designed to streamline financial management for both individuals and businesses. It offers robust functionality for tracking and categorizing income and expenses, enabling users to monitor budgets effectively. By providing a unified system, it simplifies cash flow management and gives users a comprehensive overview of their financial activities.

3 . METHODOLOGY

PROPOSED SYSTEM:

The proposed system is a modern web application designed using Python and Flask**,** which allows users to efficiently manage and track their expenses. The system is built to provide an intuitive interface where users can input their expenses under specific categories, such as food, transportation, entertainment, and utilities. By categorizing expenses, users can gain better insights into their spending habits. The backend, powered by Flask, ensures smooth data processing and easy handling of user requests, creating a seamless experience for managing finances.

In the proposed system, users can visualize their expenses over different periods—day-by-day**,** month-by-month**,** or year-by-year. The data is presented in interactive graphs and charts, which makes it easier for users to analyze trends in their spending patterns. These visualizations provide users with a clear, graphical representation of where their money is going, helping them identify areas where they might be overspending or areas where they could potentially save.

Additionally, the system offers a powerful report generation feature. Users can generate comprehensive reports based on the period they select (day, month, or year). These reports are automatically generated in the same manner as the visual data, summarizing the total expenses within each category, and offering detailed insights into financial behavior. By exporting these reports, users can keep track of their finances in an organized manner, allowing for better budgeting, planning, and decision-making.

4. IMPLEMENTATION

A) Creation of new User

The process of creating a new user involves the registration phase where the user provides necessary details such as their name, email, password, and other personal information. This information is stored in the system's database, creating a unique profile for the user. The creation of a new user ensures that

International Scientific Journal of Engineering and Management
Volume: 03 Issue: 12 | Dec – 2024
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata
ISSN: 2583-6129
DOI: 10.55041/ISJEM02167

individuals have secure access to the system, allowing them to track and manage their expenses efficiently.The registration step is essential for personalizing the experience, ensuring that each user can view their own data and generate reports that are specific to their needs.

B) Logging of the Existing User

Logging in is the step where an existing user accesses their account by entering their credentials, usually a username (or email) and a password. This authentication process ensures that only authorized users can access their data. Once logged in, the system grants the user access to their personal dashboard, where they can view, edit, and manage their expenses. The login system is crucial for protecting user information, allowing for secure and personalized interactions within the application.

C) Enter the Expense Data

Once the user selects an expense category, they can input the details of the expense. This typically includes the amount spent, the date of the expense, and a description or note for further context (if necessary). The expense data entered by the user is saved in the system, where it can be referenced later.This step ensures that users can accurately record their expenditures, providing a comprehensive overview of their financial activity. Data accuracy is key for generating meaningful reports and visualizations.

D) Visualize the Report

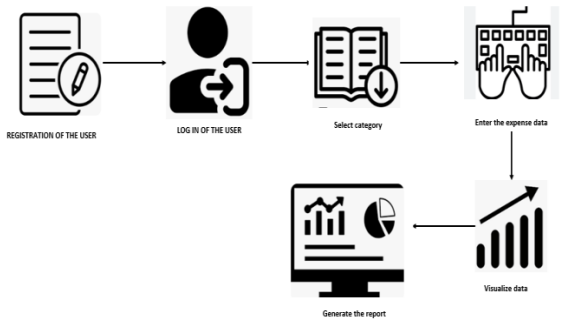
The Expense Tracker system allows users to visualize their expenses based on different time frames—daily, monthly, or yearly. This visualization helps users identify trends in their spending habits over specific periods. Graphs or charts such as bar charts, pie charts, or line graphs display the categorized expenses for the selected time frame. By visualizing data in this manner, users can better understand their financial patterns and make more informed decisions to manage their budgets effectively.

E) Generate the Report

After entering the expense data, the system allows users to generate detailed reports of their spending, segmented by date, month, or year. These reports can summarize all expenses, categorized and visualized accordingly. Additionally, users can export these reports into formats like PDF or Excel for further analysis, sharing, or record.

5. ARCHITECTURE DIAGRAM

The architecture diagram of the Expense Tracker application outlines the user journey and the interactions between different system components. The process begins with the user registration**,** where new users provide necessary details to create an account. This category helps in organizing expenses and ensures that data is categorized for easier tracking. Once the category is selected, the user proceeds to enter expense data**,** including the amount spent, the date of the expense, and any additional notes.



6. RESULTS AND DISCUSSIONS

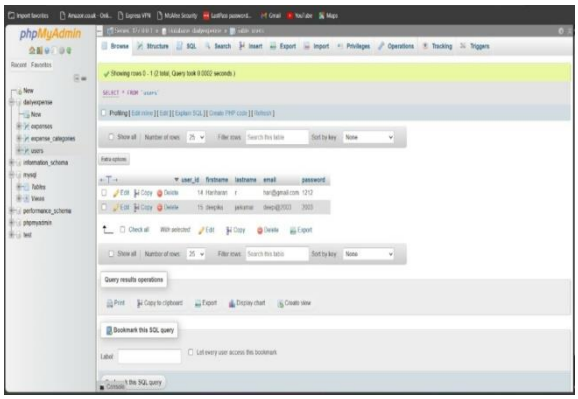


Figure 1:DATABASE DESIGN

International Scientific Journal of Engineering and Management
Volume: 03 Issue: 12 | Dec – 2024
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata
ISSN: 2583-6129
DOI: 10.55041/ISJEM02167

Figure 2: Home page

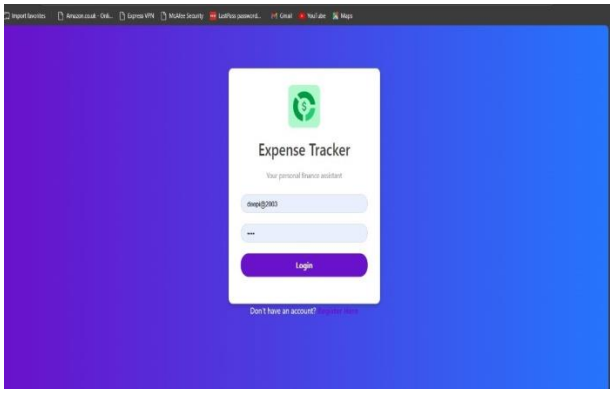


Figure 2: login page

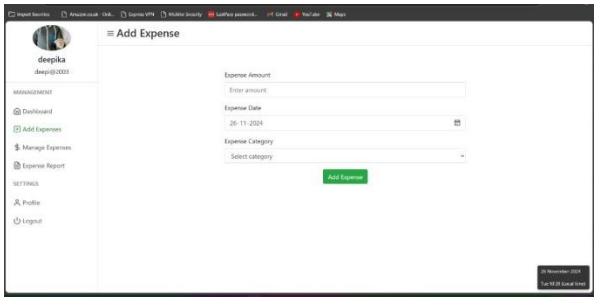


Figure 3: Expenses Category

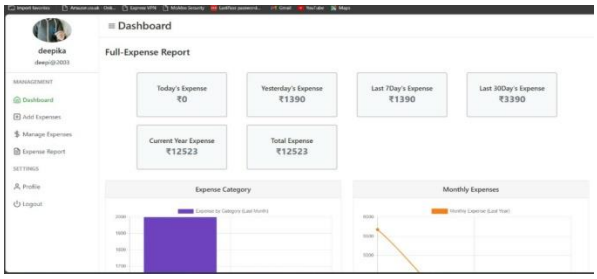


Figure 4: Dashboard report

CONCLUSION

In conclusion, the existing system's lack of a user-friendly platform for entering and categorizing expenses has created challenges in effective financial management. Many individuals and businesses have struggled with outdated methods that do not provide a clear or comprehensive view of their spending. To address this problem, a new website has been designed using Python and Flask, offering a streamlined, easy-to-use interface where users can enter their expense details within specific categories. This enables better tracking of daily, monthly, or yearly expenses, making financial planning more accessible. Furthermore, the application provides powerful data visualization features, presenting expenses in graphical formats, allowing users to easily analyze their financial data over different time periods. The ability to generate reports based on selected time frames further empowers users to understand their spending habits, identify trends, and make more informed financial decisions.

FUTURE WORK

For future work, the expense tracking system can be enhanced by developing a mobile version for iOS and Android, providing on-the-go access for users. Incorporating machine learning for expense predictions and insights would help users set accurate budgets. Cloud integration and data backup would ensure user data is safe and accessible across devices. Multi-currency and multi-language support would make the platform globally accessible, while AI-based expense categorization could automate data entry. automatic expense tracking and offering.

ISSN: 2583-6129
DOI: 10.55041/ISJEM02167

REFERENCES

[1]. Palestinian Ministry of Education and Higher Education. Palestinian Higher Education Statistics.

[2]. Accreditation and Quality Assurance Committee (AQAC) in Palestine. General Report of Information Technology and Engineering Higher Education in Palestine. Accreditation and Quality Assurance Commission (AQAC). Ramallah, Palestine: Palestinian Ministry of Education and Higher Education; 2007 Apr.

[3]. Engineering Association of Palestine. Current Engineering Statistics Book. Ramallah; 2005.

[4]. Prados J, Peterson G, Lattuca L. Quality Assurance of Engineering Education Through Accreditation: The Impact of Engineering Criteria 2000 and Its Global Influence. Journal of Engineering Education. 2005 Jan; 94(1):165–84.

[5].Chen JW, Yen M. Engineering Accreditation: A Foundation for Continuing Quality Improvement. 2005 Mar 1–5; Tainan. Exploring Innovation in Education and Research,

[6]. Homma H. Accreditation System in Indonesia. JSME news. 2004 May; 15(1)

[7]. Oberst B, Jones R. International Trends in Engineering Accreditation and Quality Assurance. World Expertise L.L.C.

[8]. Google, 2015. Google developers. [Online] Available at: https://developers.google.com/maps/documentation/android/intro#accessibility.

[9] Dr.C K Gomathy, Article: A Study on the recent Advancements in Online Surveying , International Journal of Emerging technologies and Innovative Research (JETIR) Volume 5 | Issue 11 | ISSN : 2349-5162, P.No:327-331, Nov-2018

[10]C.K.Gomathy.(2010),"Cloud Computing: Business Management for Effective Service Oriented Architecture" International Journal of Power Control Signal and Computation (IJPCSC), Volume 1, Issue IV, Oct - Dec 2010, P.No:22-27, ISSN: 0976-268X .

[11] Dr.C.K.Gomathy,C K Hemalatha, Article: A Study On Employee Safety And Health Management International Research Journal JOURNAL OF ENGINEERING, COMPUTING & ARCHITECTURE Volume 12, Issue 3, MARCH - 2022 ISSN NO:1934-7197 http://www.journaleca.com/ Page No:183 Of Engineering And Technology (Irjet)- Volume: 08 Issue: 04 | Apr 2021

[12] Dr.C K Gomathy, Article: A Study on the Effect of Digital Literacy and information Management, IAETSD Journal For Advanced Research In Applied Sciences, Volume 7 Issue 3, P.No-51-57, ISSN NO: 2279- 543X,Mar/2018

[13] Dr.C K Gomathy, Article: An Effective Innovation Technology In Enhancing Teaching And Learning Of Knowledge Using Ict Methods, International Journal Of Contemporary Research In Computer Science And Technology (Ijcrcst) E-Issn: 2395-5325 Volume3, Issue 4,P.No-10-13, April ’2017

[14] Dr.C K Gomathy, Article: Supply chainImpact of importance and Technology in Software Release Management, International Journal of Scientific Research in Computer Science Engineering and Information Technology (IJSRCSEIT) Volume 3 | Issue 6 | ISSN : 2456-3307, P.No:1-4, July-2018

[15] C. K. Gomathy and S. Rajalakshmi, "A software quality metric performance of professional management in service oriented architecture," Second International Conference on Current Trends In Engineering and Technology - ICCTET 2014, 2014, pp. 41-47, doi: 10.1109/ICCTET.2014.6966260

[16] C K Gomathy and V Geetha. Article: A Real Time Analysis of Service based using Mobile Phone Controlled Vehicle using DTMF for Accident Prevention. International Journal of Computer Applications 138(2):11-13, March 2016. Published by

ISSN: 2583-6129
DOI: 10.55041/ISJEM02167

Foundation of Computer Science (FCS), NY, USA,ISSN No: 0975-8887

[17] C K Gomathy and V Geetha. Article: Evaluation on Ethernet based Passive Optical Network Service Enhancement through Splitting of Architecture. International Journal of Computer Applications 138(2):14-17, March 2016. Published by Foundation of Computer Science (FCS), NY, USA, ISSN No: 0975-8887.