

Expense Tracker

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Abstract: *Expense Tracker A company expense tracker is developed using the React JavaScript library. The app allows employees to log and track their business expenses, including the cost, date, and details of each expense. The app's user interface was designed to be user-friendly, with clear input fields and an organized layout for displaying expenses entries. To build the app, the we use a variety of tools and technology including React components, the fetch function, and a backend service for storing and retrieving data. we also have to implement form validation and error handling to ensure the accuracy and completeness of the expense data. In addition to the core expense tracking functionality, we added several additional features, such as the ability to filter and sort expense entries and the option to generate reports of total expenses by category or date range. Overall, the expense tracker app is a useful tool for employees to manage their business expenses.*

Keywords: Updating the expenses, Altering the expenses, Accepting the requests, Allotting the money

I. INTRODUCTION

Daily Expense Tracker System is designed to keep a track of Income-Expense of an organization on a day-to-day basis. This System divides the Income based on daily expenses. If exceed day's expense, system will calculate income and will provide new daily expense allowed amount. Daily expense tracking System will generate report at the end of month to show Income-Expense graph. [1] And employees send reports to the manager for verification. Manager send final reports to administrator .Based on the final reports system predict the next month expense . It will helps to manage over all expense and income . Businesses utilize expense management software to process, pay, and audit employee-initiated expenses. The software includes capabilities for employees to input expenses for approval through a forms. Expense management software simplifies and automates a business' expense entry, eliminates paper trail, and reduces administrative effort. Expense management software allows administrators to have full visibility of and track employee use of business financial resources. Expense management software analyses overall expenses, identifies cost-saving opportunities, and controls excessive spending. "Expense Tracker" is developed to manage the daily expenses in a more efficient and manageable way. By using this application. we can reduce the manual calculations of the daily expenses and keep track of the expenditure. In this application, user can provide his income to calculate his total expenses per day and these results will be stored for each user. The application has the provision to predict the income and expense for the manager using data mining.[2] Budgeting systematically and Expense Tracking takes a crucial role in managing the expenses of business organizations. Expense tracking (for managing the employee developed expenses) will bring in several advantages for an organization. That are helpful for the stake-holders in processes of expense. The expense tracker will help any organization to deal with all their expenses more efficiently Some statistical analysis has to be done to be able to give users correct information on their expenses and help them spend better.

II. METHODOLOGY

Expense Tracker is going to be a mobile application so that It can be accessed any time required [4] This application will have a two-tier architecture: first one is the database tier, where all the data and financial data will be stored. Second it will be the user interface which will support the application user communicate with the system and also store Information in the database. The proposed system should operate offline so it can be accessed at any time without internet availability. The proposed system should provide different categories for the user to select from and they can enter the amount and mode of payment. [5] This system should be able to analyze the information, provide analytics on

which category did the user spent most of their money. The proposed system should provide a user interface where the user could store and observe their past expenses. To create this system, we will use the android studio and it. It will be written in Java, Xml. MySQL will be the database used.

III. EXISTING AND PROPOSING SYSTEMS

A) Existing System

The current expense tracker website allows users to keep track of their daily expenses by adding them to a list and categorizing them. The expenses can be viewed in a table format, displaying the date, description, category, and amount spent. The website also generates a pie chart to give a visual representation of the expenses by category.

B) Limitations of the Existing System

- Lack of user authentication and authorization, which can lead to security issues and unauthorized access to sensitive financial data
- Inadequate integration with other financial systems, such as banks and accounting software, leading to manual data entry and errors.
- Complex user interface, making it difficult for users with limited technical knowledge to use the system effectively.
- Lack of accountability, as expenses may not be verified by a manager or allocated by an accountant.
- Limited oversight, as there may not be an admin module to oversee the entire system

C) Proposed System

The improved version of the expense tracker website will have added features such as setting and tracking budgets for each category of expenses. Users will be able to input their income and the website will calculate the remaining balance based on their expenses. The website will also provide alerts and notifications when the expenses approach or exceed the budget for a particular category.[3] Additionally, users will have the ability to download their expense reports in a CSV or Excel format for future reference

D) Advantages and Features of the Proposed System

- User authentication and authorization: This will ensure the security of sensitive financial data and prevent unauthorized access.
- Support for Indian currency: This makes the system more relevant for Indian companies and eliminates the need for conversion or manual data entry.
- Integration with other financial systems: This will streamline data entry and reduce the likelihood of errors.
- User-friendly interface: This will make the system accessible and easy to use for users with limited technical knowledge.
- Verification by a manager and allocation by an accountant: This will provide a layer of accountability and ensure that expenses are tracked accurately.
- Admin module: This will give an overview of the entire system and allow for effective management and oversight.

IV. BACKGROUND

Technologies used in this project:

Python

Python is an interpreted, high-level, general-purpose programming language. Created by Guido van Rossum and first released in 1991, Python's design philosophy emphasizes code readability with its notable use of significant whitespace. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects. Python is dynamically typed and garbage-collected. It supports multiple programming

paradigms, including procedural, object-oriented, and functional programming. Python is often described as a "batteries included" language due to its comprehensive standard library. Python 2.0 was released on 16 October 2000 with any major new features, including a cycle-detecting garbage collector and support for Unicode.

SQLite3

SQLite is a popular lightweight relational database management system that is used to store and manage data in web applications. SQLite is known for its simplicity, reliability, and ease of use, making it an excellent choice for small to medium-sized web applications.

Django

Django is a high-level web framework for Python that is used to build web applications. Django is known for its "batteries included" philosophy, which means that it comes with many built-in features and tools, allowing developers to focus on building the application logic rather than configuring the framework.

React Js

React.js is a front-end open-source JavaScript framework and library developed by Facebook used for building interactive user interfaces and web applications quickly and efficiently with significantly less code than you would with vanilla JavaScript. [6] It is a powerful and flexible framework that allows you to build reusable

V. RESULT AND DISCUSSIONS

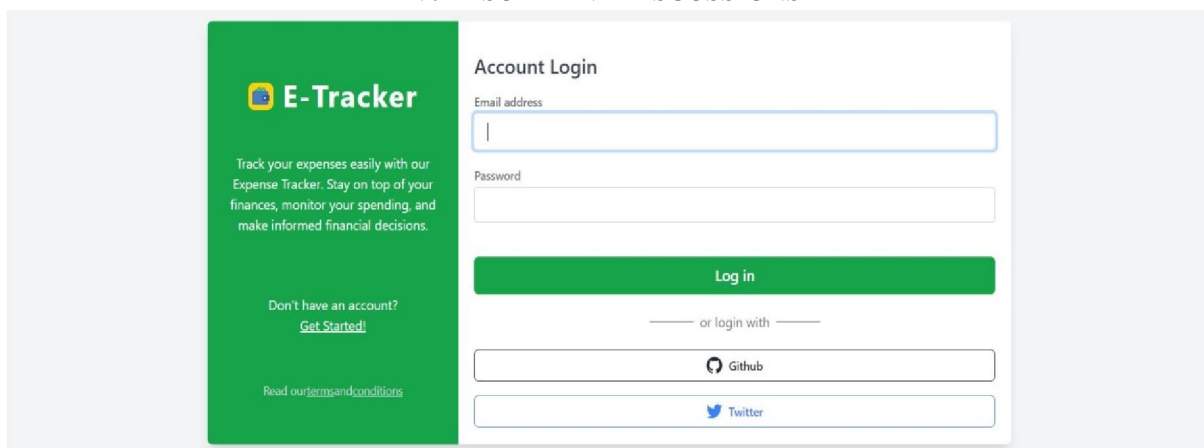


Figure 1: User Interface model

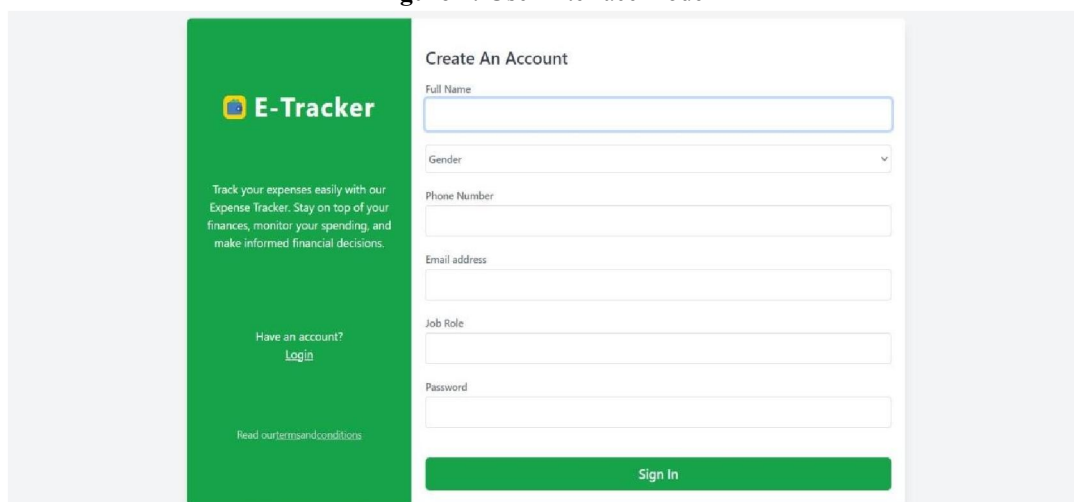


Figure 2: Registration page



Figure 3: Administrator page

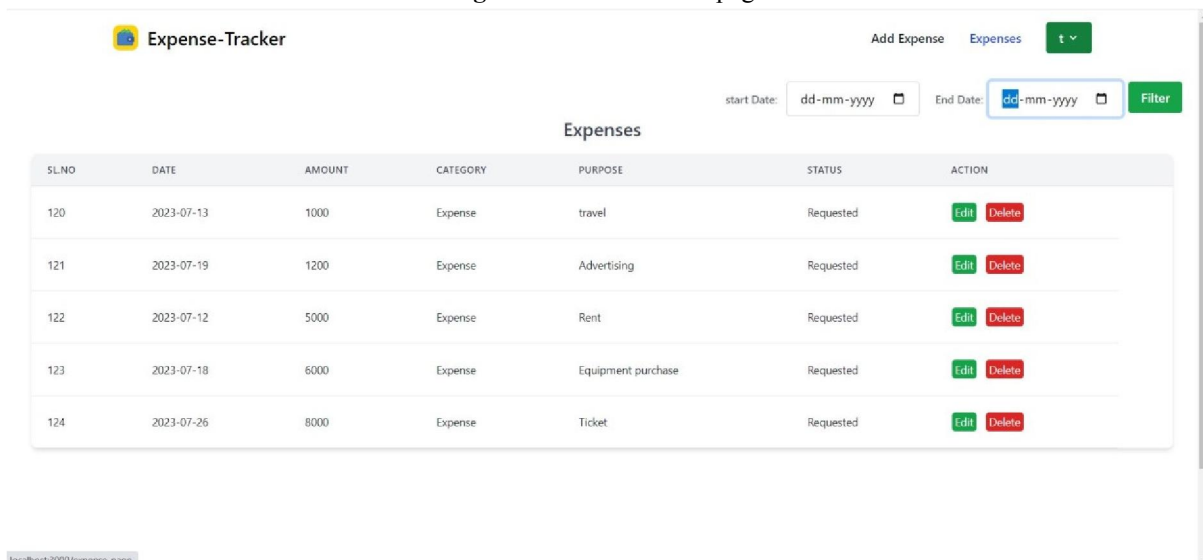


Figure 4: Employee requested expenses

VI. CONCLUSION

In conclusion, This project was made for all the people who want to have control of their financial life, but for this, there are different types of people and how each manages their own money. From the Paper Prototype and Usability Test, I could identify different types of users, one logical who understand the numbers and another more emotional who want to feel safe and need more friendly messages.

Thus, we have developed such type of android application which help the users to reduces their effort of handling daily expenses. That the application will have various components of updating and viewing users' expenditures. As part of research, we considered adding certain components to the application to make it more useful to the user. Some of the extra Components are like enabling users to register to the application using existing email or social network account, it will synchronize the users profile data to the application. In the future, there are several potential enhancements that could be implemented for an expense tracker project. These enhancements aim to improve the functionality, user experience, and overall efficiency of the expense tracking system.

REFERENCES

- [1]. Bekaroo, G., & Sunhaloo, S. Intelligent Online Budget Tracker.
- [2]. Thanapal, M. P., Patel, Y., Lokesh, R. T. P., & Satheesh, K. J. (2015). Income and expense tracker. Indian Journal of Science and Technology, 8(S2), 118-122.
- [3]. Manchanda, A. (2012). Expense Tracker Mobile Application (Doctoral dissertation, San Diego State University).
- [4]. Software Engineering, *A practitioners's Approach* ; Roger S. Pressman
- [5]. Introduction to system analysis and design; James A Senn
- [6]. React Documentation. <https://reactjs.org/docs/getting-started.html>