Personal Expense Tracker Application

Literature Survey

Team Members:

Gokul S   –   19BCS033 (IBM Roll Number: **7179KCTKCTKCTKCTKCTKCTKCT19BCS033**)

Gokul Raam M – 19BCS026

Serjeel Ranjan – 19BCS009

Ashok Kaushik – 19BCS059

Domain of the Project: Cloud App Development

Project Title: Personal Expense Tracker Application

Problem Statement:

In simple words, personal finance entails all the financial decisions and activities that a Finance app makes your life easier by helping you to manage your finances efficiently. A personal finance app will not only help you with budgeting and accounting but also give you helpful insights about money management.

Personal finance applications will ask users to add their expenses and based on their expenses, wallet balance will be updated which will be visible to the user. Also, users can get an analysis of their expenditure in graphical forms. They have an option to set a limit for the amount to be used for that particular month if the limit is exceeded the user will be notified with an email alert.

Stakeholders for this Project:

This solution service can be used by any end user who wishes to plan their expenses on the go.

This includes majority of people from working class who wants to understand what they spend money on and how much they spend, they can see exactly where their cash is draining and areas where they can cut back to get their finances in order.

Literature Survey:

We have collected, studied some series of articles and research papers about various proposed solutions for developing a Personal Expense Tracker Application.

- **DAILY EXPENSE TRACKER MOBILE APPLICATION** [1]

    In this report, the Author used Least Square Method which helps in a successful budget planned with the prediction of the outcome of the budget based on expenses for his Daily Expense Tracker Mobile Application. This Application integrates the least square method in statistics for a function which generates a monthly expense report and budget outcome predictions.

    As the least square method is very sensitive to even small deviations, it could drastically affect the outcome. This is considered as one of the major disadvantages of this application. And another being this is limited to being only a Mobile Application as of now.

- **EXPENSE TRACKER** [2]

In this android application, use to track and update their daily costs so they are always aware of how much they are spending and they the user can establish their own spending categories like food, clothing, rent and bills, and then enter the amount spent. And there is notes feature to specify more information about the expenses. The advantage in the application is there is a pie chart of costs feature to visualize the expenses in an efficient way.

- **EXPENSE TRACKER MOBILE APPLICATION** [3]

This application is similar to the above mentioned except this is for iPhone users implemented using iOS SDK. After when the user enters the expenses, dates and other details, the user is able to see the expense details daily, weekly, monthly, and yearly in figures, graphs, PDF format, and can print them as well if a printer is detected or scanned nearby.

As the user can only enter the expense amount in United States Dollars Currency, this application is limited to only for US people. And also there is no search option in this application, so if a user wants to see the expense he made on Rent for the past 2 months he has to scroll through the calendar to find it.

- **Expense Manager Application** [4]

In this mobile application, which is for android platform that keeps record of user personal expenses, his/her contribution in group expenditures, top investment options, view of the current stock market, read authenticated financial news and grab the best ongoing offers in the market in popular categories.

This application can also help digital marketing agencies in rolling out their advertising campaigns more effectively. A feature called "splitbill" is available used to split bills among friends and like for storing any information about money lent or borrowed.

- **Expense Tracker : A Smart Approach to Track Everyday Expense** [5]

This research paper is about a Windows based application specifically for windows users. This Expense Tracker is a day-to-day expense management system designed to easily and efficiently track the daily expenses of unpaid and unpaid staff through a computerized system that eliminates the need for manual paper tasks that systematically maintains records and easily accesses data stored by the user.

Our Proposed Solution:

We plan to build an interactive UI and deploy it on cluster provided by the IBM cloud. The app image will be made using Docker. This working node will be stored as image on the container registry. To store the information of the users we plan to make use of IBM DB2.

The expense tracking app will be running on web and can be accessed anywhere, the users are expected to enter their day today expenses and the application will store this information in the database and do the calculation on the same. If the expense crosses some threshold limit set by the user, the application will send an alert mail to the user. This can be implemented with help of SendGrid services.

References:

[1]   MUSTAFA, N. N. B. DAILY EXPENSE TRACKER MOBILE APPLICATION.

[2]   Jadhav, N. J., Chakor, R. V., Gunjal, T. M., & Pawar, D. D. EXPENSE TRACKER.

[3]   Manchanda, A. (2012). *Expense Tracker Mobile Application* (Doctoral dissertation, San Diego State University).

[4] Velmurugan, A., Mayan, J. A., Niranjana, P., & Francis, R. (2020, December). Expense manager application. In *Journal of Physics: Conference Series* (Vol. 1712, No. 1, p. 012039). IOP Publishing.

[5] Gupta, H., Singh, A. P., Kumar, N., & Blessy, J. A. (2020). *Expense Tracker: A Smart Approach to Track Everyday Expense* (No. 4809). EasyChair.