# **Expense Tracker**

Arun N, Dinesh B, Harsha TR, Kanyalakshmi G SSN College of Engineering, Kalavakkam, Chennai

#### Abstract

Expense Tracker is used to maintain and manage data of daily expenditure in a more precise way it can give profound knowledge of their expenses. User can choose the kind of spending they wanted to do, even the amount etc. and all these details is going to be saved by the internal database storage. In this system user can actually have a knowledge about their expenditure on their daily basis, weekly as well as monthly basis.

This systematic way of storing your information related to your expenses would help you to keep a track of your expenditure and further you do not have to do the manual stuff. Some statistical analysis has to be done to be able to give users correct information on their expenses and help them spend better. This helps the society to prevent the issues like bankruptcy and save time from manual calculations. User can provide his/her income to calculate the total expense per day and the results will be stored for each individual user. People when usually go for trips with friends, can use this tracker to maintain their expense.

In existing, we need to maintain the excel sheets, csv etc. files for the user daily and monthly expenses. In existing, there is no as such complete solution to keep a track of its daily expenditure easily. to do so a person as to keep a log in a diary or in a computer, also all the calculations needs to be done by the user which may sometimes results in errors leading to losses. This project is about mobile application Expenses system with geo-location tracking, Based on the location of the user, it using Google Places, to check, the available store in the area, provides a notification for offers purpose, In term of security design, this system may implement a login authentication such as OTP message to your mobile device, this function may bring more security confidence to user.

#### **Indexed Terms**

Expense Tracker, budget, planning, savings, graphical visualization of expenditure, Expense, Income, Application, Budget, security.

#### Introduction

In today's world financial well-being is the dream of every person and managing and keeping track of their expenses play a crucial role in this goal. If a person is not able to manage his expenses, he/she is likely to end up in a crisis. Money management is a necessary part of life. A proper balance between income and expense is a must for a comfortable livelihood. There must be some savings that can be used at a later point of life when needed. But in the absence of proper management of money, we left with no savings at all. Some people note down every single expense which is a good practice. 'Expense Tracker' to efficiently manage house-old budget. Our system will allow user to keep track of their expenses. Some statistical analysis has to be done to be able to give users correct information on their expenses and help them spend better. This helps the society to help them from issues like bankruptcy and save time from manual calculations. For using such application, a user needs to provide his/her total income or the amount he/she is spending per day and each user details or information are going to be stored in a unique way.

Every user is required to register on the system to create a record unique to the user. This novel expense tracker uses statistical analysis which are going to keep a track of your expenses and would even give you results accordingly. If you spend too much on a particular day this smart feature will help you to sort things out it will minus the expenses from the next day or if it lesser then it will add your saved amount for that day in the savings. Tracking application will generate a report accordingly on monthly or weekly basis and would generate a statistical analysis of your expenses in a more sorted and easier to understand way.

## A. Types of Expense Managers

At the moment, there are several expense tracking applications available. Some are paid while others are free. Even banks offer their customers expense trackers to help them out. Before you choose to go in for a particular money manager, it is important to choose the type you want.

Money managers can be divided into two categories. They are: -

- 1) Simple applications that are quick and allow you to manage and keep track your personal expenses.
- 2) Complex applications that let you to manage multiple user accounts and can be integrated with your credit cards, debit cards, and bank accounts. These apps are for persons who have a lot of money outflow or businesses that want to keep track of their employees' expenses.

# B. Benefits of Using Expense Trackers

If you are wondering why, you should be using an expense tracker, here are some benefits that you should keep in your mind:

- 1) Prioritize Your Spending: Remember you are on a fixed income and have a limit to spend which you cannot cross. If you start examining what you are spending your hard-earned money on, you will be able to prioritize the spending. This way, you will spend just on things you need, like paying your EMIs, utility bills, rent, and grocery shopping, rather than spending frivolously.
- 2) Become Aware of Poor Spending Habits: If you tend to spend money on a whim, using an expense tracker will help you identify those habits. When you will spend more than what you have thought to save, then there will be a color change of the card which will let you know that you should spend carefully. Basically, you will think twice before doing useless expenses.
- 3) Expenses Reminder: You may forget to add expenses on some day as it is is human nature to forget about some things. So, an expense tracker will help you to remind about adding expenses daily. It can send you reminder either through email or SMS.
- 4) Take Control of Your Finances: When you track your expenses, you are taking control of your finances. It lets you to regulate spending impulses and eliminate worthless spending, thereby avoiding debt. At every point, you will be aware about how much money you are left with.
- 5) Saving and Investment: When you track your expenses, you are aware about the area where you can save better and invest in your future. Spending carelessly does not give you leeway to save and invest for your future.

#### **Literature Survey**

An exhaustive literature survey on related topic suggest that earlier tracking was performed manually. These things were done in an old school way you can say more likely in a notebook or copybook these things were written as per the willingness of a person in simple words you can call is as "The quite manually stuff". Then after that they have calculate the entire expenditure at the end of the month or week and a report is generated against the expenditure in comparison to the previous month or information related to that. So, they face a certain problem that time:

- Data is not accurate
- Reports in not up to the mark

- A single mistake in a manual calculation and actually cost you much
- Its time consuming boring and most of the time insufficient
- Going through all the data back then rewriting them off actually makes way fussier
- It can be easily stolen or loss as well your information is not safe there

The Expense Manager is intended to run on any device namely smart phone. Expense Manager is designed to efficiently cater the needs of users by eliminating imparting costs and settling vows to friends. The application encourages corresponding users help in who owes who, and for what. Aim is use better approaches to help users and their companions to share expenses easily.

# A. Intelligent Online Budget Tracker

The development of this application has been conducted in a stepwise manner using the well-defined methodology, RUP, customized according to the requirements of the system. Most of the goals set at the start of the development phase have been met. Security problems like web security or network security have also been treated in the design and development of the system, thus increasing the reliability of the system. Quality management issues have also been handled satisfactorily.

#### B. Online Income and Expense Tracker

This project is work more efficient than the other income and expense tracker. The project successfully avoids the manual calculation for calculating the income and expense per month. The modules are developed efficiently and also in an attractive manner.

## C. Family Expense Manager Application

As the result, the user can make use of this application in his/her daily life. After being used it can be a part of daily life to update and view daily expenses and family expenses. This helps to keep track of expenses & manage it for the user as they are busy in their daily routine, they are not able to keep track of their incomes & expenses.

# D. Personalized Expense Managing Assistant Using Android

Some of the features are like enabling users to register to the application using an existing email or social network account, it will synchronize the user's profile information to the application. Apart from this, the application can be used to gather samples of data related to user's expenses with consents and use those sample data as parameters to assess patterns of

spending. Using some data mining techniques expenses can be classified and can be used in market analysis and planning.

# E. Mobiwik Expense Tracking Application

Mobikwik came up with a new feature in their app called Expense Manager. With this feature, you can track and manage your expenditures (expenses), savings, reminders and bill payments. This is a personal budget management app that tracks your expenditures and income and gives you recommendations to make you economically strong. The main idea of developing this feature for giving users a clear picture that how much they are spending and where they are spending and when. We remind them to pay their utilities and card bills before the due date by using the same platform in just one tap, instead of going any other way. Also serving them by giving saving tips for their good future investment.

#### **Feasibility Analysis**

#### A. Technical Feasibility

This analysis focuses on the technical resources which available to use. It helps in determining whether the technical team is capable of converting the ideas into working models. It also evaluates the hardware, software and other technological requirements of the designed system.

#### B. Operational Feasibility

This analysis has a simple User-Interface. Anyone with basic knowledge of Android device can use Expense Tracker. It takes few seconds (approx. 2 sec) to take you from home screen to front page. With a click data can be entered.

#### C. Economic Feasibility

The only cost for building this is for printing and binding report files and system uses cost. In Addition to this, effort and time by every team member is also involved for this project. Also, the user doesn't need to pay any amount to use this app. Just install and use the application. And hence, ET is economically feasible for anyone with the application.

#### **Modules**

A. User Registration and Creation

This application like the vast majority of the applications will have user login screen and alternatives for enlistment. The user should enlist in this application when the person in question is utilizing for first time. Nonetheless, the client who is now enlisted can login to the application utilizing their login accreditations that are made by the user at the hour of enrolment.

## B. Adding Income and Expenses

This application will provide to choose the categories or type of income or expenses. Every user of the application has to the options to add incomes and expenses accordingly. Each record should have details date of occurrence of item, details of items etc.

#### C. Category Master

This module fundamentally relies upon the SQL Lite for putting away classification details and expense subtleties and income. The class exchange is put away in a SQL lite database.

## D. Management View- Date Wise

The Expenses are recorded dependent on the predetermined date insightful in this module. By recovering all the income and expense subtleties are seen as a rundown of exchanges classes by our various costs. The income and expenses are recovered by utilizing SQL lite queries and saw in advanced cell.

## E. Management View- Category Wise

The Expenses are recorded dependent on the predetermined classification astute in this module. By retrieving all the income and expanse subtleties are seen as a rundown of exchanges classifications by our various expenses. The income and expenses are recovered by utilizing SQL lite queries and saw in advanced cell.

## F. Remainder

The Rest of is a caution generator module, for user recognition the alert/ready will review the user to add the Income or Expenses at day by day or Certain Period bases on user need.

## **Future Scope**

- 1) It will have various options to keep record (for example Food, Travelling Fuel, Salary etc.).
- 2) Automatically it will keep on sending notifications for our daily expenditure.

- 3) In today's busy and expensive life, we are in a great rush to make moneys, but at the end of the month we broke off. As we are unknowingly spending money on title and unwanted things. So, we have come over with the plan to follow our profit.
- 4) Here user can define their own categories for expense type like food, clothing, rent and bills where they have to enter the money that has been spend and likewise can add some data in extra data to indicate the expense.

#### Conclusion

Tracking your expenses daily can not only save your amount, but it can also assist you set financial goals for the longer term. If you know exactly where your amount goes every month, you will easily see where some cutbacks and compromises can be made. The project that we have developed is more efficient than the other income and expense trackers. The project successfully avoids the manual calculation which is performed usually in the absence of an expense tracker. The modules are developed efficiently and also in an attractive manner. The application will eliminate sticky notes, spreadsheets, and ledgers that cause confusion, data inconsistency problems while recording and splitting expenses. With our application users can manage their expenses more effectively and they will be better at managing the expenses. Tracking the daily expenses can not only help in saving money but also help in setting financial goals for the future. If we know where our money is being spent every day, it is easy to set some cutbacks and such to help reduce expenditure. This project is developed to work more efficiently in comparison to other trackers and avoid manual calculation. It is developed to be efficient and look attractive at the same time.

## References

- [1] Bekaroo, G., & Sunhaloo, S. Intelligent Online Budget Tracker.
- [2] Underwood, D. (2011). A Case Study of Tracking Expenses by Commodity at Widget Farmers' Cooperative.
- [3] Chandini, S., Poojitha, T., Ranjith, D., Akram, V. M., Vani, M. S., & Rajyalakshmi, V. (2019). Online Income and Expense Tracker.
- [4] Satpute, M. K., Kale, A., Mandal, A., & Krishnan, R. SURVEY ON CLASSIFICATION ENGINE FOR MONETARY TRANSACTIONS

- [5] Sabab, S. A., Islam, S. S., Rana, M. J., & Hossain, M. (2018, September). eExpense: A smart approach to track everyday expense. In 2018 4th International Conference on Electrical Engineering and Information & Communication Technology (iCEEiCT) (pp. 136-141). IEEE.
- [6] Rajaprabha, M. N. (2017). Family Expense Manager Application in Android. MS&E, 263(4), 042050
- [7] Kan, C., Lynch, J., & Fernbach, P. (2015). How budgeting helps consumers achieve financial goals. ACR North American Advances.
- [8] Sharma, R., 2020. Case Study Of Expense Tracking App: Get Daily Alerts Of Your Expense. [online] Medium.
- [9] 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.
- [10] Manchanda, A. (2012). Expense Tracker Mobile Application (Doctoral dissertation, San Diego State University).
- [11] Access Consultants. (1998). the final report on the analysis of the household budget and expenditure survey for St. Vincent and the Grenadines. Atlanta GA.

Retrieved August 15, 2006, from http://www.geocities.com/CollegePark/Library/3954/svghbes.pdf

[12] Central Statistics Office. (2001). Household budget survey. Government of Ireland. Retrieved August 15, 2006, from

http://www.cso.ie/releasespublications/documents/housing/hbs.pdf

[13] European Countries. (2004). Household budget surveys in candidate countries: Methodological analysis 2003. European Countries. Luxembourg. Retrieved

February 19, 2007,

http://europa.eu.int/estatref/info/sdds/en/hbs/hbs\_meth2003\_cand\_countries.pdf

- [14] International Research Journal of Engineering and Technology (IRJET)
- [15] https://www.researchgate.net/publication/237448489\_Intelligent\_Online\_Budget\_Tracker (Bekaroo, Girish & Sunhaloo, Sameer. (2007). Intelligent Online

Budget Tracker.)

[16] https://www.irjet.net/archives/V6/i3/IRJET-V6I31110.pdf

- [17] M N Rajaprabha 2017 IOP Conf. Ser.: Mater. Sci. Eng. 263 042050
- [18] https://easychair.org/publications/preprint/73S7
- $[19] \ https://medium.com/@rajotiya.ravi2/case-study-of-expense-tracking-app-get-daily-alerts-of-your-expense-a0561526973d$