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# **Personal Expense Tracker Application**

## **ABSTRACT**

This Expense Tracker is a web application that facilitates the users to keep track and manage their personal as well as business expenses. This application helps the users to keep a digital diary. It will keep track of a user's income and expenses on a daily basis. The user will be able to add his/her expenditures instantly and can review them anywhere and anytime with the help of the internet. He/she can easily import transactions from his/her mobile wallets without risking his/her information and efficiently protecting his/her privacy. He can see the accurate duration for how long a particular product is being used by him. The monthly, and year-wise comparison of expenditures will be done by the app which will let the user know the area where he is spending the most. The user will be able to see the detailed analyses with the help of graphical visualizations. This project will provide a lot of benefits to the users with the help of which they will be surely able to keep track of each penny. It is time to stop using paper and excel sheets to keep track of your digital as well as cash payments. Using paper is not easy to manage. It is common to delete files accidentally or misplace files. This expense tracker provides a complete digital solution to this problem. Excel sheets do very little to help in tracking expenses. Furthermore, they don't have the advanced functionality of preparing graphical visuals automatically. Not only it will save the time of the people but also it will assure error-free calculations. The user just has to enter the income and expenditures and everything else will be performed by the system. Keywords: Expense Tracker, budget, planning, savings, graphical visualization of expenditure.

## 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 Management and Tracking is performed by noting down and analyzing the transactions of an individual or an organization over a particular period. Nowadays, everyone in the world is in some kind of hurry, so countless people are searching for competent ways of tracking and managing their expenses. In some recent years, research has been administered on household budgets (Access Consultants, 1998; Central Statistics Office, 2001; European Countries, 2004; Muellbauer, 2006; Redpath, 1986; Yemtsov, 2007). It was found that in most cases, people were performing expense management and tacking mentally and not writing any of it down on paper making the process more problematic. Perhaps this is because of the verity that most of the people do not know how to manage and keep track of their expenses. For budgeting, we have to foresee and establish some future goals. By determining a budget, an individual can set goals for attaining a certain level of income and check his/her expenses. Numerous proprietors of home-based and small-scale industries have observed that their profit margins did not increase until they had a written income goal and a process with which to oversee expenses (Central Statistics Office, 2001; Redpath, 1986). Similarly, personal finance management is an important aspect of people's lives.

## **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 are 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. Babad and Balachandran in 1993 states that traditional cost accounting systems maintain all overheads in one pool and give equal weight to all activities and costs in it We always have known that “pen is mightier than sword” but that thing doesn’t fit with every specific tasks it varies from need-to-need or tasks-to-tasks these days when the amount data is quite enormous. It becomes way more difficult to handle them off. Soon excel also become a way on maintain a record of expenses and analysis.

### **A Research at university on Tennessee on expense tracker of by (DanUnderwood, 2011)**

In which using excel accounting team designed a Cost Allocation tool 1 in which a spreadsheet is used to allocate the product category both by site and the cooperation and a Cost allocation tool 2 which is a developed to further integrate and allocate cost to identify which manufacturer is profitable or which is not. This research used excel and designed this CAT tool in which both the spreadsheets are required to use to identify where we could reduce expenses or better managed it. (Girish Bekaroo, 2007) did a research on intelligent online budget that manages the expenses and used to give the graphical analysis of data.(Stephan snow and Dhayal Vyas, 2015) mentioned in his paper. “Managing finances is a practice carried out daily in homes

across the world. Despite this, the practice is not yet a strong focus for HCI work in the home”.

Researchers of Nandha and Anna university (2016) created an android version of expense manager in which they used post and remark techniques for underlining the expenses and some of the data mining features for analyzing the market value well. (R N Rajprabha, 2017) created an android version of family budget manager which later evolved in PDA and tablet features. (Ravi Sharma, 2017) stated users sometimes feel uncomfortable in sharing their personal information with an app and he suggested security and usability are two major concerns. Even the advanced UI needs to maintain retention. Researchers of Mother Teresa university, Andhra Pradesh (2019) also stated an online income and budget tracker in a website mode but that project used csv mode to store data but that project had a drawback in its existing model as it can't handle the data efficiently in addition to that it wasn't user-friendly and an unpopulated data project. All these researches above suggest some of the modern way of dealing with expense tracking.

### **A. Intelligent Online Budget Tracker**

The development of this application has been conducted in 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 more 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.

## **METHODS**

The expense controller has a simple task. It maintains four values: savings, investments, expenses and the total monthly budget. That's it! You have just completed the basic functionality for the expense manager. By now, you should be able to log multiple entries in the savings, investments and expense types and your budget should be calculated accordingly.

An expense tracker app allows you to track and categorize your spending. Your financial health will improve by keeping a daily record of your expenses by keeping track of receipts, bills, and other outgoing costs

### **Problem Statement**

Expense Tracker At the instant, there is no as such complete solution present easily or we should say free of cost which enables a person to keep a track of its daily expenditure easily. To do so a person has 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. Due to lack of a complete tracking system, there is a constant overload to rely on the daily entry of the expenditure and total estimation till the end of the month. As the name itself suggests, this project is an attempt to manage our daily expenses in a more efficient and manageable way. The system attempts to free the user with as much as possible the burden of manual calculation and to keep the track of the expenditure. Instead of keeping a dairy or a log of the expenses on the smartphones or laptops, this system enable user by various helping modes.

This app helps you stick to your budget and Tracking Your Expenses can reveal Spending Issues . improve you to Meet Your Financial Objectives.it minimize the time by avoiding the record expenses with Pen and Paper and make it easier withan App or Software.



## **Procedure**

Monitoring sales by E-commerce businesses can get huge aid from such expense tracking apps. By syncing the mobile card reader functions with the app, you can track sales and product movement in real-time for the store. E-commerce stores need to connect to any of their preferred e-commerce APIs. Let us have a look at the steps to build a successful app for tracking business expenses.

### **Define the app idea clearly**

There is already numerous expense tracking mobile apps, and many of them are quite popular. Unless you can offer some additional benefits and user experience that users find interesting or relevant, a new expense tracker is not going to make any real impact. To make sure that your expense tracker app idea stays competitively ahead of others, you need to ask the following questions to define the scope of the app project.

- What are the key customer pain points the app is going to solve?
- What is the unique value proposition of your app?
- What are the key reasons for people to prefer your app over others?
- How is the app for tracking expenses different from that of the competitors?

### **Build the architecture and backend**

When you build an expense tracking app, you need to give emphasis on building the appropriate architecture and backend for the app. The app performance and the security aspects are dependent on these two elements. An app architecture corresponds to diverse aspects of an app project. In this case, different aspects that are handled by the architecture of an expense tracking app include coding language,

database, frameworks, user interfaces, or features.

The front end of any app refers to the interface and features that users come across and make interactions with. The front-end development involves creating the UI/UX based upon the design that the design prototype finalized. Generally, time-tested web technologies like JavaScript, HTML and CSS are used for frontend development besides leading front-end development frameworks such as React Native, Flutter.

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