

# Expense Tracker: A Smart Way to Track Daily Expense

Mohd Khurram Siddiqui, Rudrendra Bahadur Singh, Mohd Yasir Khan, Vishal Kumar Chaurasia, Prachi Rastogi

*Department of Computer Science and Engineering,*

*Babu Banarasi Das Institute of Technology and Management, Lucknow, India*

## ABSTRACT

Tracking regular expenses is an important aspect of budgeting. People often track expenses by using pen and paper or taking notes by cell phone or computer. These cost savings processes require further calculation and processing for this data to be used as a tracking record. In this function, we propose a default system called Expense Tracker to store and calculate this data. Expense Tracker is an app that works on Android smartphones and operating systems. By using this app, users can save their costs by simply typing their costs by typing or with the help of voice. This application extracts information from voice or typing input data and saves value and definition for further processing. It also assesses user income and expenses and displays pie charts. By calculating income and expenditure it generates the user's monthly and annual balance. All in all, this is a smart automated solution for tracking costs.

**Keywords**-Personal expense tracker; data base; data selection; information management system

## INTRODUCTION

Cost tracking control has become a major factor in human well-being. The reasons for this are economic instability, which has caused people to keep a record of expenses and income. Personal accounting will help you save money and make only the necessary purchases, it will help you analyze your expenses, plan your budget and spend money wisely. Because of the speed

technological advances, cost calculations can be done by telephone and simple and easy, take less time and give greater effect. In this regard, in our time, it is more appropriate than ever to apply for a cost calculation.

## Research motives

Computer and internet capabilities result in the availability of many free services, including free accounting software, where the daily costs of users are recorded for each item to track cash flow. Considering the simple functions and extended applications, such software can affect the savings and personal finances of users. This study designs and develops a financial planning system that can help users understand personal financial planning and management, as well as select appropriate, low-risk, low-cost, real-time, and accurate earnings. The article describes modern voice recognition methods, and explores the possibility of extracting the required data from the information provided and storing it.

This article has a wide range of distributions and currently has a few major applications implemented. The technology used to make cost calculation applications is being developed. The topics of voice recognition and data entry are almost entirely explored in articles. This article describes a variety of pre-processing techniques that will help improve the quality of voice recognition. In this study, the Speechly UI API was re-trained and that gave a good result both in terms of performance and quality of recognition. This study makes a brief comparison of existing data entry uses and describes the performance of Speechly. The study analyzed all available information, including cost calculation requests. The author of this article compared apps and highlighted the good and bad aspects of each other, finally coming to the conclusion that despite the many uses of data input, each of them has its drawbacks.

## Research purposes

The type of accounting system for the financial management system proposed by this study provides accounting services, budgeting, financial planning, monitoring, and chart presentation. As a financial planning tool, it enables users to select appropriate investment patterns based on a monthly backup sheet balance for maximum return, as well as effective financial planning for future expenses. Users can track the balance and manage their assets to achieve their future financial goals.

The main objectives of the research are to use a pre-processing algorithm for text and voice recognition, data storage and the possibility of contacting them and creating a web and mobile application.

## LITERATURE

Cost tracking refers to activities related to income management and the asset owner as a decision maker. Tasks may include wealth growth, livelihood satisfaction, and the management and monitoring of various risks. The scope of planning includes operational revenue and utilization of revenue sources. Costs include the cost of family life, debt costs, and programs at various stages of life, such as housing, children's education, and retirement. The amount of income and tracking costs is the scope of tracking individual expenses. Cost tracking is aimed at measuring income and expenditure gap, and achieving savings goals.

Tracking personal expenses controls all activities related to the owner's cash flow, including aspects of income management, investment, housing costs, day-to-day expenses etc.

## RESEARCH MATERIALS AND METHODS

Software: Speech Recognition System (speechly); React; Local Storage APIs used by HTML5

Speech recognition is part of the sub-fields of computer science and computer languages that develop methods and technologies that allow the recognition and translation of spoken language into computerized text with great search benefits. Also known as automatic speech recognition (ASR), computer speech recognition or speech recognition (STT). It integrates information and research into the fields of computer

science, languages and the fields of computer engineering. The retreat process is to integrate the speech.

Speech recognition applications include voice user communications such as voice dialing (e.g., "call home"), call management (e.g., simple data entry (e.g., inserting a credit card number), systematic text editing (e.g., radiology report), specifying speaker features, speech and text processing.

React (also known as React.js or ReactJS) is a free JavaScript library with open-source interaction building based on UI components. Hosted by Meta (formerly Facebook) and a community of individual developers and companies. React can be used as a basis for the development of single-page or mobile applications. However, React is only concerned with the management of the country and providing that status to the DOM, so creating React applications often requires the use of additional libraries to route, as well as some client-side functionality.

Web storage, sometimes known as DOM storage, provides web applications with ways and means to store client-side data. Web storage supports continuous data retention, similar to cookies but with a much improved volume and no information has been sent to the HTTP request header. There are two main types of web storage: local storage and backup session, which behaves the same way on continuous cookies and time cookies respectively. Web Storage is rated by the World Wide Web Consortium (W3C) and WHATWG, and is supported by all major browsers.

To reduce the number of man-made statistics, we propose an app developed by React. This application allows users to save a digital digital diary. Each user will be required to register on the system at the time of registration, the user will be given an id, which will be used to keep a separate user record. Expense Tracker application that will track the daily Cost of User Logs. This app takes user income and expenses and updates the pie chart accordingly. A cost tracking app will generate a report to show Revenue with multiple graphs. It will allow you to add the amount of savings you have saved to other Celebrations or days such as Birthdays or Birthday Celebrations.

The solution to the problem described above is to provide online ways to store and manage people's financial (budget) data.

The main reason why the proposed application should be online is for owners to access their financial data anywhere at any time online from a new computer or

mobile browser. The proposed system should be able to support multiple users at once. It should provide users with a convenient interface where they can store all their financial data for different months / years online. They must also be able to analyze financial data and generate desirable reports and obtain useful predictions.

## CONCLUSIONS AND FURTHER WORK

The program developed in this study provides earners with a steady income for accounting tools. The benefits of the system are as follows:

- Plan ahead for investment types to allow users to choose the right tools.
- Operating manual available.
- Easily browse data and calculate and display the cost of pie charts and user revenue.
- Includes all types of investment-related programs, and available calculation methods.
- Default topics, such as "Assets, liabilities, costs" to allow the user to add their own preferences.
- Easy-to-use interface.

There are many financial planning tools and software programs available. If financial information, from different financial institutions, can be properly integrated into a website, which is constantly updated, we will provide users with additional investment options.

In the research process, a web and mobile application for cost calculations were created and all set goals were met. Many speech recognition systems have been tested and evaluated for their performance across all devices. It is important to note that the advanced recognition algorithm works effectively with speech taken in good conditions. The app interface is user-friendly, which makes the communication process easier. The next steps in the study are to expand support stores and improve app performance.

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