PERSONAL EXPENSE TRACKER APPLICATION

LITERETURE SURVEY

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BASE PAPER

DAILY EXPENSE TRACKER BY SHIVAM MEHRA, PRABHAT PARASHAR IN INTERNATIONAL JOURNAL OF RESEARCH IN ENGINEERING AND SCIENCE (IJRES) ON DECEMBER 2021.

Daily Expense Tracker can be accessed from a web browser, such as Google Chrome or Mozilla Firefox, allowing for a portable work environment. The application contains all the features of digitally maintaining the records with some eye-catching visual representation and graphics of your spending and even eliminating the need of physical entries by provide voice instructions. This web application usually is developed using React Js as the framework and also uses its libraries like material Ui, chart.js to add and create the functionalities. React JS is a declarative, efficient, and flexible JavaScript frontend library for building reusable UI components. It is a, component-based front-end library and is available freely to everyone which is responsible only for how the application looks or the view layer of the application. The aim of React JS is to make it feasible for developers to develop User Interfaces (UI) easily by dividing it into various components and also to develop fast systems. It uses virtual DOM (JavaScript object), which enhances efficiency and the performance of the app. The JavaScript virtual DOM is faster than the conventional DOM. We can use React JS on both client and server-side as well as with other available frameworks. It uses component and data patterns that improve readability and helps to maintain and regulate larger apps .Component based development allows to break the system into various components and develop them separately, test them separately and then integrating them to make up the system. Also, the concept of virtual DOM improves the performance of system as the component on which the change is made is re rendered and the whole application is not re rendered again. Our application is divided into three major components that is income, expense and create transaction section. Create transaction component controls the rest of the system it allows user to choose from two categories whether it is a Expense or an Income and also choose from list of types of income or expense enter the amount and date and create entry. After the creation of transaction pie charts are created in the income or expense section based on type of transaction in real time showing the distribution of your income and expense respectively. All these features of creating and deleting transactions are also implemented by voice commanded using Speech voice engine which is an AI powered

engine providing voice recognition to implement in our system .The application make use of advanced react concepts of context is and hooks. With Hooks, you can extract state ful logic from a component so it can be tested independently and reused. Hooks ensures and allow you to reuse state ful logic without changing your component hierarchy. This makes it easy to share and use Hooks among many components or with the community. Styled components are used to style the web application and make it responsive for all the devices. Ultimately the best possible use of stack of technology is done to make sure that the user experience is unmatched and inimitable.

REFERENCE PAPER

1.A NOVEL EXPENSE TRACKER USING STATISTICAL ANALYSIS BY MUSKAAN SHARMA1, AYUSHBANSAL, DR. RAJU RANJAN, SHIVAM SETHI PUBLISHED IN INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN TECHNOLOGY ON JUNE 2021.

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(Babad and Balachandran, 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. Though excel was an effective software to handle such stuff but still lacks in many things so some of the researchers even started using excel with certain tools designed by them. A research at university on Tennessee on expense tracker of by (Dan Underwood, 2011):In which using excel accounting team designed a Cost Allocation tool 1 in which a spread sheet 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 spread sheets 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.it uses a Rational Unified Method (RUP) which was way more efficient and advantageous in the way it used to promote code reuse and encapsulation.in which CSS and xml technologies has been used. Students of Sikkim Mani pal University an income expense for housewives which not just counts the amount but also maintains date and calendar record of the person as well they used the clustering technique to maintain their data storage. (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 with 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 with later evolved in PDA and tablet features.(Ravi Sharma, 2017) stated users sometimes feels 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 Terresa 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. Many of the

researches like these actually represents the evolution in ideas with time "evolution is not a necessity it's more like change in thinking and time" in which we analyze estimate and evaluate the things according to new requirements. But still the kind of technology used in it is kind of projects were used in previous days there are certain android apps as well still they too also have different consequences as well as drawbacks in itself. And I also feel like these should be way easier to handle to a desktop device. As sometimes android apps will provide in accurate results if the information is incorrect and many of the times, we almost got forget to enter details too and most them don't even provide notification for that as well.

2.A REVIEW ON BUDGET ESTIMATOR ANDROID APPLICATION BYNAMITA JAGTAP, PRIYANKA JOSHI, ADITYA KAMBLE PUBLISHED IN INTERNATIONAL RESEARCH JOURNAL OF ENGINEERING AND TECHNOLOGY (IRJET) ON 4 APRIL 2019.

The Expense Manager is a mobile application intended to run on android 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. This new application will let bunch users and their companions to have detailed view inside this application around individual costs. The app allows its users to add a remark to an expense, click on the expense name in any expense list. Bill posting will have space for comments and notes container with a "Post" catch underneath. The Expense Manager has notification option to notify each time somebody adds a remark to an expense user is on, or user can withdraw to posted bill. The additional feature that we are going to add in this application that enable us to collect the sample data of users expenses and use this to study patterns of expenses in certain area or by specific kinds of spending for market analysis. These patterns can be derived using some data mining techniques [1][2][3][4] such as clustering, classification and association. Some of the conventional methods used to tackle this problem in normal circumstances are like making use of a sticky note by normal users, Proficient people deal with this kind problems by using spread sheet to record expenses and using a ledger to maintain large amounts data by especially by experts. As this shows that it is variable methods used by different people. This makes using this data inconsistent. There are still problems in

areas like there is no assurance for data consistency, there are chances of critical inputs can be missed and the manual errors may creep in. The Data recorders are not always handy and it could be hectic process to have overall view of those expenses. We believe a handy design a handy mobile application which handles these problems. Such that app is capable of recording the expenses and giving comprehensive view with easy to use user interface and this app is intelligent enough to answer : ' Who owes who ? And by how much ??' [5]. The mobile applications that are available in the market are very useful to the smartphone users and make their life easy. 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 in the field of expenditures of user. This idea serves as main objective of research project. The research also includes syncing of the applications with some social networks and emails as well[6].This section of paper is very important and this will guide our team to successfully accomplish the goals set for research. Here, the research project methodology describes the steps and approaches to be fallowed to attain final product. As explained above our project is of splitting the expenses between the groups and also to efficiently manage the personal expenses as well. However, our projects will have additional features included as part of our research so that it makes our project unique in the market. These features would make the project more efficient and very useful for our users. Apart from the benefits user gets and there is an important use of the system that enables us to use the data of the user with his prior permissions for the purpose of data mining for several other functionalities to be applied in market by analyzing user expenses[7][8][9]. suggest that this trend plays a bigger part in driving upgrades to existing computer systems than technological advancements.

PROBLEM STATEMENT

Many organizations have their own system to record their income and expenses, which they feel is the main key point of their business progress. It is good habit for a person to record daily expenses and earning but due to unawareness and lack of proper applications to suit their privacy, lacking decision making capacity people are using traditional note keeping methods to do so. 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.