

Personal and Group Expense Management using Cloud Application

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Abstract: Users can monitor and keep track of both personal and business expenses with the use of a web application. This application can be used by either an individual or a group of people who needs to track their expenses. This project provides a complete digital solution to the problems such as managing handwritten papers, manual calculations, maintaining spreadsheets for budgeting and managing expenses. It also having a feature of maintaining the expenses between a group of people, when they spend together on such events like business, casual tours and trips. In this web application, the peoples are added to a specific group, and the transactions of each member is monitored and managed appropriately using cloud database, so that the tracking the expenses of the individuals won't be a burden for the users and it is simplified with this concept

Keywords: Expense tracker, Web Application, Cloud Application, Real Time Application.

I. INTRODUCTION

A messaging platform that employs cloud computing technologies to offer a safe and dependable messaging service is known as a secure chat web application. The platform is constantly up and running and user data is secure because the programme is hosted on cloud servers, which offer scalability, availability, and data redundancy. End-to-end encryption, multi-factor authentication, and data backup and recovery are just a few of the capabilities that secure chat web applications may offer thanks to cloud computing, which also improves the platform's overall security and privacy. The application can manage numerous users and messages while assuring quick and effective message delivery thanks to the cloud architecture. A secure chat online application that uses cloud computing has the benefit of removing the requirement for users to save messages on their potentially lost or stolen devices. Instead, all messages are safely kept in the cloud, allowing users to view them from any computer or mobile device with an internet connection. Overall, a stored in the cloud secure chat application is the perfect answer for people, companies, and organisations who need a reliable and safe communications platform that can be effortlessly accessed from any location around the world.

1.1 Cloud Application

An application that combines local and cloud-based components is known as a cloud application. This paradigm uses distant servers that are accessible by a web browser and an ongoing internet connection to process logic.

The traditional location of cloud application servers is a distant data center run by a third-party cloud services infrastructure provider. Email, file sharing and storage, order input, inventory management, word processing, customer relationship management (CRM), data collecting, and financial accounting functions are all examples of jobs that may be performed with cloud-based applications.

1.2.1 Benefits of Cloud Apps

- API use.
- Reduced costs.
- Gradual adoption.
- Instant scalability.
- Simplified operation.

- Fast response to business needs.

II. BACKGROUND STUDY

The idea of developing this paper in platform arises with the lack of financial awareness in the country as well as frequent concerns being experienced by people to manage their money properly. Some of the problem include splitting bill among friends and groups. Some of traditional methods used to tackle this problems in daily life is the use of sticky notes. Proficient people deal with problems by using spreadsheet to record expenses, this is easy when the data is small but when the data is large it becomes unmanageable. There exists problems in certain areas like there no proper data consistency, some critical inputs may be missed and manual errors may occur. The data recorders and handlers have a hectic experience in managing the large chunks of data so, we believe that a mobile application with a good user interface can easily handle these problems as it can give comprehensive view and the app is intelligent enough to suggest the best options as per the budget selected by the user.

III. OBJECTIVE OF RESEARCH

The android applications present in the app store are very helpful to the smartphone users and make their life easy. The expense manager android application is one among those applications, which provides a variety of help in daily life. As there are many similar applications available trying to solve the same problem but are not effective, today we added some innovative features to make our application unique, easy to use and efficient, this is what makes our application stand out from the rest of others. Other than adding unique features like integrating group expenses and personal expenses into one single application, we also added features like trends and estimations. We have developed this idea after numerous surveys from friends and family. This idea serves as main objective of this research paper. The research also includes syncing of applications with personal email IDs or social network account which help also help us to serve better recommendations and personalised marketing campaigns.

IV. FEATURES OF APPLICATION

- Keep track of all your daily transactions.
- Keep track of your money lent or borrowed.

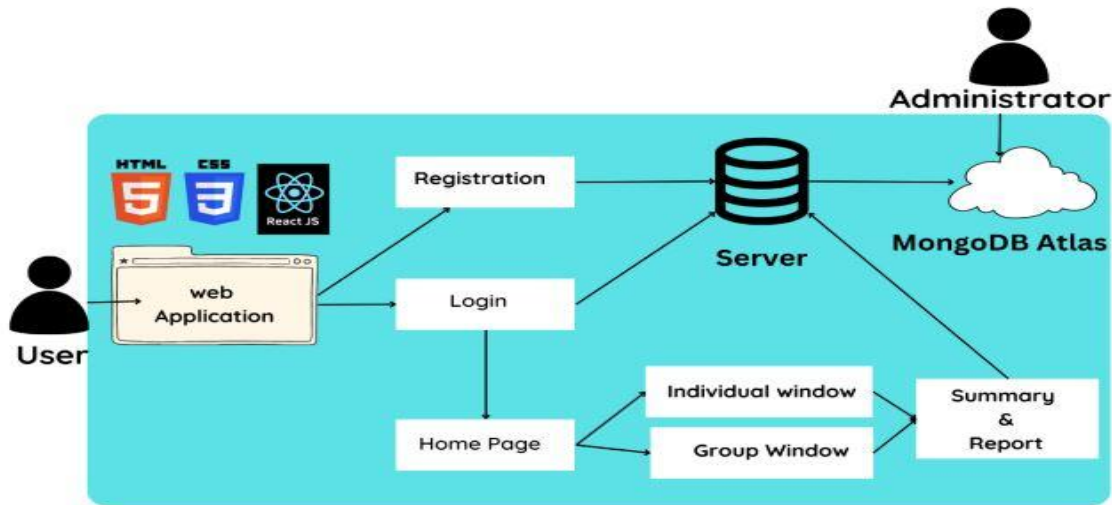
V. METHODOLOGY

This section of paper we discuss how the paper is going to be developed and deployed, we are going to discuss the tools and technologies required in successful completion of this paper. We have designed architecture diagrams and layouts which we are going to use in our user interface which is user friendly i.e. easy to understand and use. We have a clear objective to make the application efficient that can run even on low end devices. Each method that we follow are the best practices as per industry standards. Below are the list of all programming languages, tools and technologies used in this paper

- React JS
- Node JS
- MongoDB

VI. SYSTEM ARCHITECTURE

User: A individual who has registered or joined up to use the application and converse with other users is referred to as a user. To distinguish themselves from other users within the application, each user often has a special username or recognition. To interact with other users who have comparable interests, objectives, or connections, users may set up, join, and take part in a variety of chat rooms or channels. Depending on the platform, a user may have access to various functions and features within a chatting application, but they typically include the ability to send messages, share multimedia content, and communicate with other users in a variety of ways.



Administrator: The administrator often has access to extra features and functions that are not available to regular users, such as the power to add and remove chat rooms, control user behaviour, handle user accounts, and maintain the database.

Server: The server is in charge of responding to all user requests and handling message processing. The application server is frequently housed in the cloud and has the ability to scale dynamically to manage a high volume of users and messages. Additionally, it offers security tools like encryption, authentication, and access control to safeguard user information.

Database: The database component of the application stores all user data, including messages, user profiles, and settings. The database can be hosted in the cloud or on-premises and can scale dynamically to handle large volumes of data. It also provides backup and recovery features to ensure that user data is always available.

6.1 List of Modules

1. **REGISTER AND LOGIN MODULE:** This module allows the user to create a account to utilize the application. The user has to create their own account name and password for the application. This module is for the first time user. This module allows the user to enter into the application, the user has to enter the login credentials in order to use the application.
2. **DASHBOARD MODULE:** This module displays the expense and income details of the current day, the user can add and edit the income and expense details. The module consists of other sub menus such as report, summary, inflation details and profile details
3. **GROUP EXPENSE MODULE:** This module enables the user to create a private channel, so that the user can add their friends in that and they can manage the expense and income in a group manner.
4. **DATABASE MODULE:** This module stores all the reports and summary of the expenses and income records. And all the details will be stored in a centralized storage

VII. SCREEN SHOTS

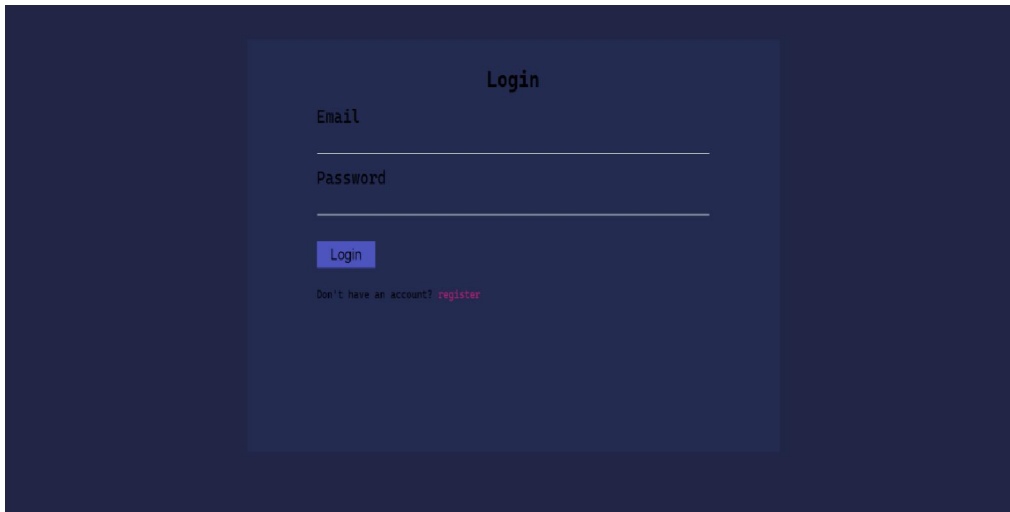


Fig:1 Login Page

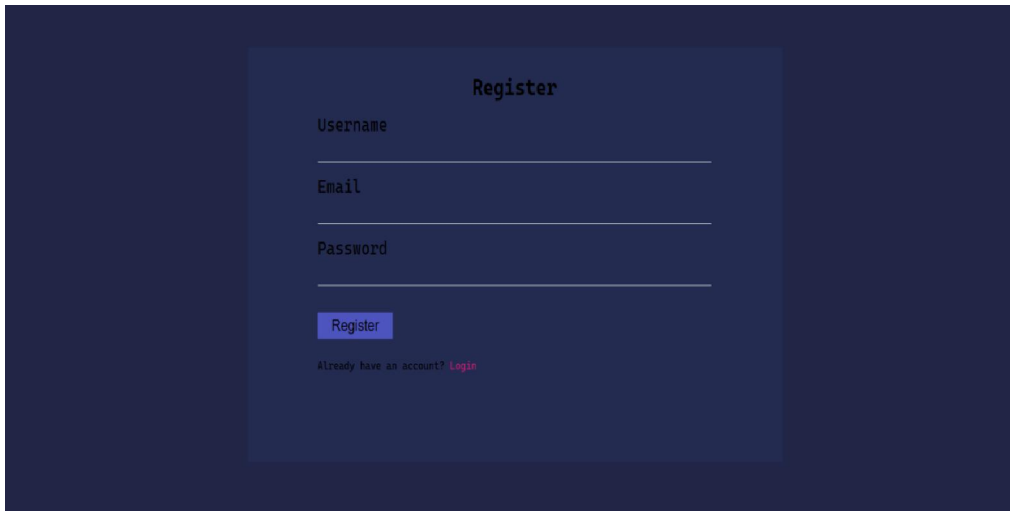


Fig:2 Registration Page

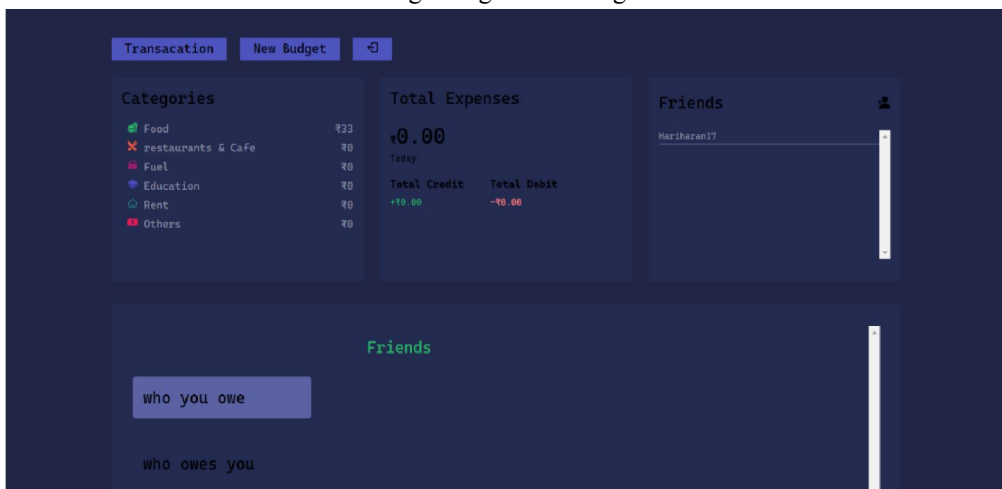


Fig:3Dashboard Page

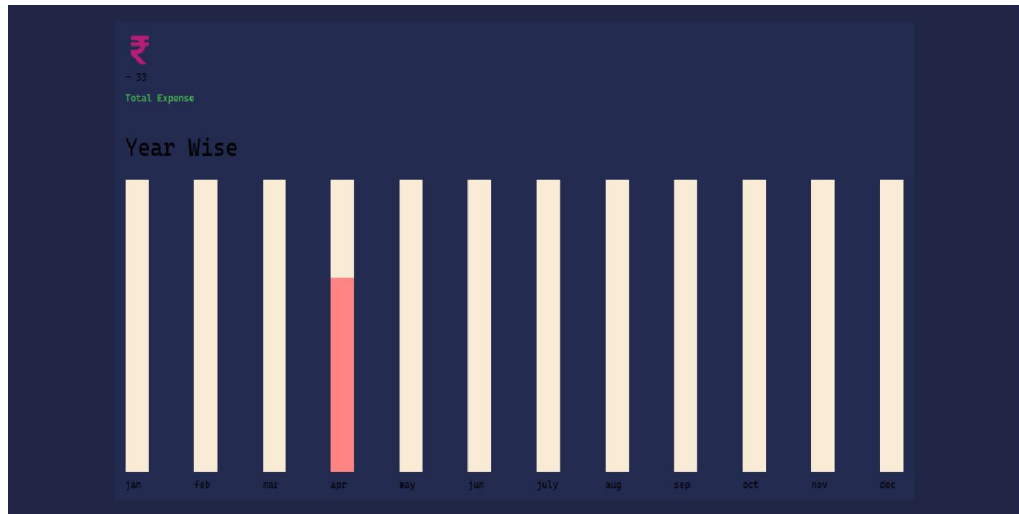


Fig:4 Graph Page

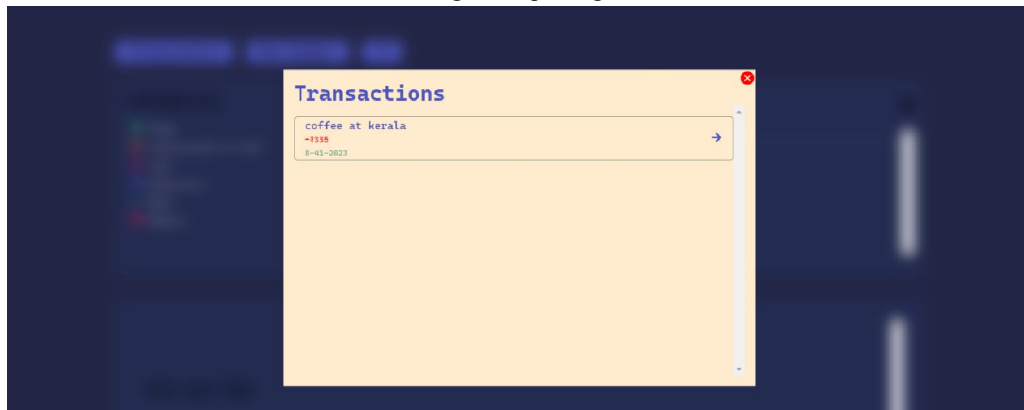


Fig:5 Transaction page

VIII. CONCLUSION

In today's Web development, a good page design is essential. A bad design will lead to the loss of visitors and that can lead to a loss of business. In general, a good page layout has to satisfy the basic elements of a good page design. This includes color contrast, text organization, font selection, style of a page, page size, graphics used, and consistency. In order to create a well-designed page for a specific audience. The developer needs to organized and analyze the users' statistics and the background of the users. Although it can be hard to come up with a design that is well suited to all of the users, there will be a design that is appropriate for most of the audience. The better the page design, the more hits a page will get. That implies an increase in accessibility and a possible increase in business.

REFERENCES

- [1] Prof. Miriam Thomas, Lekshmi P, Dr.Mahalekshmi Expense Tracker.
- [2] Md. Abdul Karim, Taslima Yesmin Orin Daily Expense Tracker
- [3] K.R.Radhakrishnan, A.Tamizhselvi, M.Anbu. Financial and Individual future expense prediction based on frequent patterns using micro services
- [4] Shahed AnzarusSababe Expense: A Smart Approach to Track Everyday Expense.
- [5] R.Velmurugan, Mrs.P.Usha, Mobile expense Tracker.

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