

Budget-Beacon

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Abstract- The 'Budget Beacon' is an unadorned web application designed to make it easy for people to manage their finances and monitor their expenses. It provides users with the facilities to make financial decisions and strategies. Incorporating advanced features makes it easier for users to maintain their finances with precision and make more financial decision with precision. The web application gives users the ability to keep track of their daily expenses and break down their spending by category [1].It helps users keep their financial information digitally eliminating the traditional book keeping system.

Index Terms - Node.js, Express, Embedded JavaScript (EJS), Mongo DB and Html, CSS.

I. INTRODUCTION

This study provides the technical aspects and architecture of budget beacon, developed using web development. This study provides information about synergy between technologies creating user friendly UI/UX and efficient platform, addressing challenges like creating app that can be easy to use and sustain data privacy. Users of this application may plan their budget efficiently, tackle their finances more skillfully and make strategies for saving money. Users can easily add new finances entries because of the app's simplistic design and architecture. Users can use this app for knowing their spending habits and make necessary changes according to them.

II. PROBLEM DEFINITION

Today, we are live in a world where time is money, so it is necessary to maintain records of finance efficiently in real time, many people are looking for effective way to budget their time and money. During the last few years, research has been conducted on household budget, it has been observed that in many household people do budget management mentally or they make hand notes of it, therefore it makes it difficult to keep track of their budget and finances which in turn result in poor financial decisions [2]. Due to ongoing stress and lifestyle, people often forget where they have to pay or what was there last salary or income [2]

Proposed Solution

On every occasion, user does not have pen and paper to write their expenses. There is a high chance of misplacing the paper if they write their expenses on it. Laptops and mobiles have become a crucial part of our lives, therefore user write their expenses in this application and do not have fear of losing data. They can keep their data safe and secure.

Work Tools and Technologies

EJS

- EJS stands for "EMBEDDED JAVASCRIPT."
- EJS is used for front end.

Tailwind CSS

- Dynamic styling of server-rendered pages
- By tailwind CSS control layout, color, spacing and more without writing custom CSS.

Node JS

- Runtime JavaScript Environment.

Express

- Express is a framework of node JS.

Mongo DB

- Mongo DB is a non-relational database management system.

Authentication

- **JWT:** JWT stands for "JSON WEBTOKEN."
- Used to provide access to user after verification.

Bcrypt

- Use of password hashing.

III. LITERATURE REVIEW

Asst.Prof.Abhishek Dadhich A.T. al:Software that allows user to review their spending and categorize it on different bases [3].

Angad Manchanda: there is a requirement of application on behalf of which input data like expense amount and date when the expense was made [4].

S. Chandini A.T. al:because of stress and many other reasons users lose track of the payments they have to pay [5].

ATIYA KAZI A.T.al: if users exceed daily expense, it will pop up a warning and not allow to spend more in a specific day [3].

A. Saraboji A.T.al: A number of users have a hard time balancing their daily spending which often results in a worsening financial situation [7].

IV. IMPLEMENTATION

This application was implemented using web development tools and technologies. First, the user will login or create account in the application then they will get the access of home page where they can create new entries and make modification according to their needs and requirements.

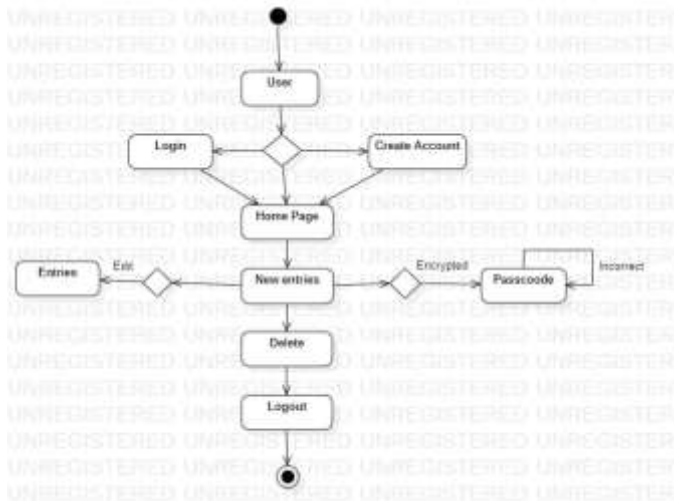


Fig 1: Flowchart

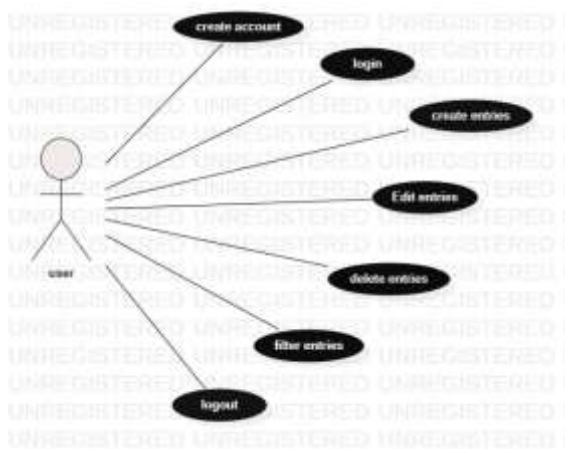


Fig 2: Use case Diagram

V. RESULT

The features of the web application include:

- Data security.
- Filtering.
- Editing.
- Encryption.



Fig 3: Login



Fig 4: Create Account



Fig 5: Home Page



Fig 6: New Entries



Fig 7: Functionalities

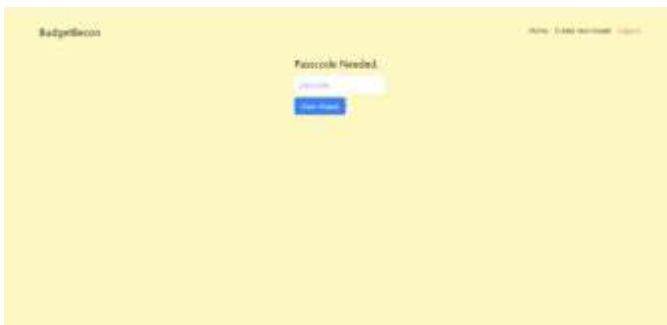


Fig 8: Encrypted File

VI. CONCLUSION

The web application provides users with the ability to maintain their finances efficiently by using advanced features. The web application uses the tools and technologies of web development to create user-friendly application. This application provides user better features and functionalities for planning out their future expenses and creates strategies out of their spending habits.

By inculcating paging architecture this application helps to easily see through and sort accordingly, it creates better user experience.

This application keeps in mind the privacy of data by reducing the risk of misusing confidential financial information.

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