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Mini Project Report

EXPENSE TRACKER (BUDGET BUDDY)

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in degree of partial fulfillment for the award of the

Bachelor of Engineering

IN

Computer Science

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Declaration

We hereby declare that the work which is being presented in this Project "**Expense Tracker Website",** done at place where the project is done, has not been in any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other university. This is an authentic record of our own work carried by the team members under the supervision of our mentor Shiv Kumar Verma

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BONAFIDE CERTIFICATE

Certified that this project report **"Expense Tracker (Budget Buddy)"** is the bonafide work of "**Chirag Jain, Mohit Mangal, Mayank Varshney and Tarun Agarwal"** who carried out the project work under my/our supervision.

Signature	**Signature**
Rohit Agarwal	**Shiv Kumar Verma**
Head of the Department	**Supervisor**

Submitted for the project viva-voce examination held on

INTERNAL EXAMINER **EXTERNAL EXAMINER**

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ABSTRACT

In today's busy and expensive life we are in a great rush to make money. But at the end of the month we broke off. As we are unknowingly spending money on little and unwanted things. So, we have come over with the idea to track our earnings. Daily Expense Tracker (DET) aims to help everyone who are planning to know their expenses and save from it. DET is an website which users can execute in their mobile phones and computers and update their daily expenses so that they are well known to their expenses. Here user can define their own categories for expense type like food, clothing, rent and bills where they have to enter the money that has been spent and also can add some information in additional information to specify the expense. Although this website is focused on new job holders, interns and teenagers, everyone who wants to track their expense can use this website.

LIST OF ABBREVIATIONS

DET	Daily Expense Tracker
HTML	HyperText Markup Language
CSS	Cascading Style Sheets
Js	Javascript
YNAB	You Need a Budget

Introduction

Expense tracker is a refined system which allows user to efficiently manage his/her expenses with ease. Tracking expenses daily can really help to us save lot of money. Once we start off by tracking our expenses each day, we will be able to get a better idea where you are spending your money, so you stay in control and achieve your goal. It will be able to generate your expense and saving report as time duration you selected. There will be a reminder that will help to save money for your pre-defined expenses.

Objectives

The objective of this system are:

- To keep track of daily expenses and budgeting;
- To save money for pre-defined expenses which will help planning on your future investments

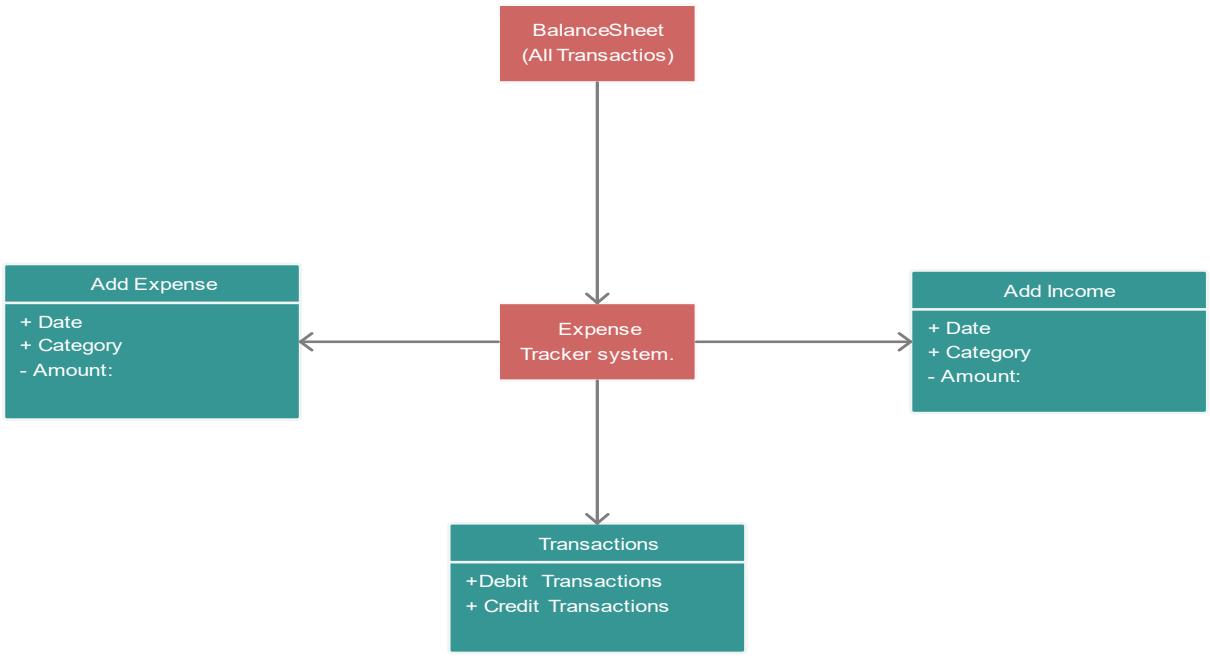
Identification of problem

Every earning people are mostly obsessed at the end of the month as the they cannot remember where all of their money have gone when they have spent and ultimately have to sustain in little money minimizing their essential needs. 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 and notify them if they are going to have money shortage. 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

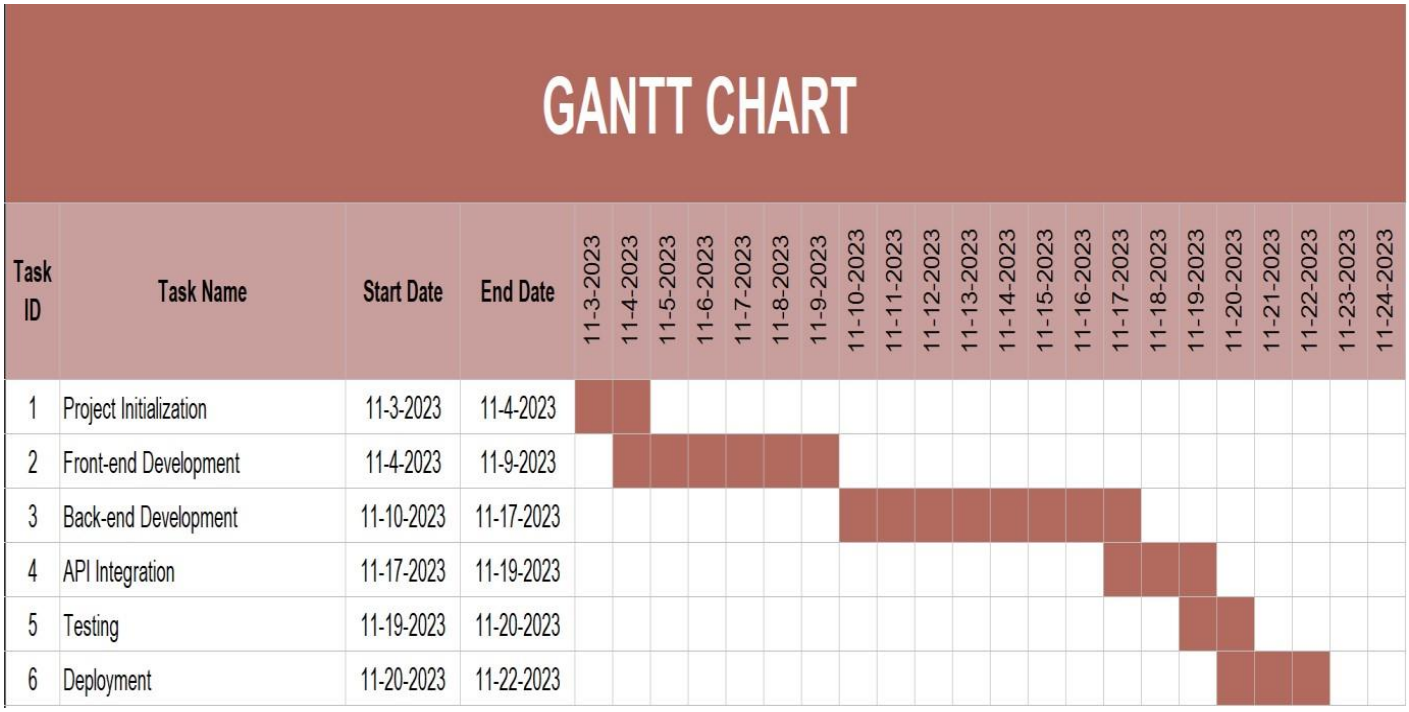
Literature Review

Tracking daily expense is not so innovative. Many traditional and technological approach is found to track our expenses and budget with their own functionality. From decades ago and today we have been writing our expenditure in a register to calculate the profit or saving. Not only this many desktop and mobile applications has been developed for this purpose. Quicken and Microsoft money were the first desktop applications was developed decades ago but was not so familiar with the users. Personal capital and dollar bird application were used to visualize the expenses in chart or graphs with the calendar system. QuickBooks were the application for the small business holder to wrap up their whole business. YNAB and Penny were the latest application which were embedded with Al and applicable for importing expenses automatically. However, Mint was the one which was widely used and trusted.

Explaining about the latest application built in this category, YNAB is an expense tracker that gives the automatic tracking of our expense through our bank account or credit cards. We can also define expenses that may take place in future so that we do not go out of bound. This application is mobile friendly and is emerging since 2013.This application is embedded with AI to define and manage



Timeline of the Reported Problem



Task ID	Task Name	Start Date	End Date	11-3-2023	11-4-2023	11-5-2023	11-6-2023	11-7-2023	11-8-2023	11-9-2023	11-10-2023	11-11-2023	11-12-2023	11-13-2023	11-14-2023	11-15-2023	11-16-2023	11-17-2023	11-18-2023	11-19-2023	11-20-2023	11-21-2023	11-22-2023	11-23-2023	11-24-2023
1	Project Initialization	11-3-2023	11-4-2023																						
2	Front-end Development	11-4-2023	11-9-2023																						
3	Back-end Development	11-10-2023	11-17-2023																						
4	API Integration	11-17-2023	11-19-2023																						
5	Testing	11-19-2023	11-20-2023																						
6	Deployment	11-20-2023	11-22-2023																						

Technologies Used

HTML

Hypertext Markup Language, commonly known as HTML, stands as the cornerstone of web development, providing a standardized markup system to structure and present content on the World Wide Web.

Structural Backbone:

At its core, HTML serves as the structural backbone of web pages. Using a system of tags, developers delineate the various components of a webpage, defining headers, paragraphs, lists, and other essential elements. This hierarchical structure not only imparts semantic meaning to content but also lays the foundation for search engine optimization, aiding in the discoverability of web content.

Interactive Features:

HTML empowers developers to incorporate interactive features seamlessly. Through the use of forms, users can submit data, facilitating dynamic interaction with the website. HTML5 introduces multimedia elements, such as audio and video tags, enabling the integration of rich media content directly into web pages, thereby enhancing the overall user experience.

Responsive Design:

With the proliferation of diverse devices, responsive design has become imperative. HTML, in collaboration with Cascading Style Sheets (CSS), enables the creation of responsive websites that adapt seamlessly to various screen sizes and devices.

It is used for:

- Structuring Pages
- Content Presentation
- Hyperlinks
- Forms and User Input
- Multimedia Integration
- Search Engine Optimisation

CSS

Cascading Style Sheets, commonly known as CSS, is a pivotal technology in web development that elevates the visual presentation of HTML-structured content. Its primary role is to define the styling and layout of web pages, providing a mechanism to control the color, typography, spacing, and positioning of elements on a webpage.

CSS enables the separation of content from presentation, allowing developers to create consistent and visually appealing designs across multiple pages. By employing selectors and declarations, CSS targets HTML elements and attributes, applying styles that enhance the overall user experience.

One of CSS's notable contributions is its support for responsive web design. Through media queries and flexible grid systems, CSS empowers developers to create websites that seamlessly adapt to various screen sizes and devices. This responsiveness ensures optimal viewing experiences on desktops, tablets, and mobile phones.

Furthermore, CSS facilitates the implementation of animation and transition effects, bringing a dynamic and interactive dimension to web interfaces. Selective styling through classes and IDs provides developers with fine-grained control, allowing for the customization of individual elements or entire sections of a webpage.

It is used for:

- Presentation and Styling
- Layout Control
- Responsive Web Design
- Animation And Transitions
- Print Styles
- Selective Styling

JavaScript

JavaScript, often abbreviated as JS, is a versatile programming language that plays a pivotal role in web development. Originally introduced as a client-side scripting language, JavaScript has evolved into a powerful and multifaceted tool used for both front-end and back-end development, enabling developers to create highly interactive and dynamic web applications.

Client-Side Interactivity:

One of JavaScript's primary functions is to enhance client-side interactivity. It runs directly in the web browser, allowing developers to manipulate the Document Object Model (DOM), dynamically update content, and respond to user interactions. This capability is fundamental to creating engaging user interfaces, from form validation to interactive maps and real-time updates.

Asynchronous Operations:

JavaScript's asynchronous nature is key to handling non-blocking operations. Features like Promises and the async/await syntax facilitate the execution of code without disrupting the flow of the program. This is especially crucial when dealing with tasks such as fetching data from servers or performing complex computations, ensuring a smooth user experience.

DOM Manipulation:

The ability to manipulate the DOM is central to JavaScript's role in web development. Through JavaScript, developers can dynamically alter the structure and content of web pages, responding to user actions and updating the interface without requiring a full page reload.

Libraries and Frameworks:

JavaScript is enriched by a plethora of libraries and frameworks, such as React, Angular, and Vue.js on the front end, and Express.js on the back end. These tools simplify and expedite development, providing pre-built components, efficient state management, and modular structures that enhance the scalability and maintainability of web applications.

It is used for:

- Client-Side Scripting
- User Interface Interactivity
- Form Validation
- Dynamic Content Updates
- Browser Manipulation
- Event Driven Programming

PHP

PHP (Hypertext Preprocessor) is a server-side scripting language renowned for its ability to create dynamic and interactive web pages. Initially conceived as a tool for managing personal websites, PHP has evolved into a robust server-side language used in conjunction with HTML to build dynamic websites, web applications, and content management systems.

PHP operates on the server side, meaning it executes on the web server before the HTML is sent to the client's browser. This server-side scripting capability allows developers to perform tasks on the server, such as interacting with databases, processing form data, and generating dynamic content based on user requests.

One of PHP's standout features is its seamless integration with databases. Developers commonly use PHP to connect to databases like MySQL, PostgreSQL, or MongoDB, enabling the retrieval and manipulation of data. This capability is fundamental for applications that require storing and managing information, such as e-commerce platforms or content management system.

PHP excels at generating dynamic content based on user input or other external factors. By embedding PHP code within HTML, developers can create pages that adapt to user interactions, providing a personalized and responsive experience.

PHP supports session management, allowing developers to maintain user-specific information across multiple pages or visits. This is invaluable for creating user authentication systems, shopping carts, and personalized user experiences, as PHP can store and retrieve user data throughout a user's interaction with a website.

PHP enables server-side file handling, allowing developers to upload, manipulate, and manage files on the server. This functionality is essential for applications involving file uploads, such as image galleries, document repositories, or multimedia sharing platforms.

It is used for:

- Dynamic Web Page Generation
- Server-Side Form Handling
- Database Connectivity
- Content Management Systems (CMS)
- User Authentication and Session Management
- File Handling and Uploading

SQL

Structured Query Language (SQL) stands as the cornerstone of relational database management systems, providing a standardized means to interact with and manipulate databases.SQL has become the universal language for defining, querying, and managing relational databases. Its primary functions encompass data definition, data manipulation, and data control. SQL enables the creation and modification of database structures, defining tables, relationships, and constraints that govern data integrity.

SQL empowers users to retrieve, update, insert, and delete data with precision and efficiency. Through declarative statements, users can formulate queries to extract specific datasets, filter information based on conditions, and aggregate results for insightful analysis. This capability is vital for applications ranging from business intelligence to dynamic web content generation

SQL's role extends to data control, where it manages access permissions, ensures data security, and enforces user privileges. Its robust security features include user authentication, authorization mechanisms, and encryption, safeguarding sensitive information within databases.

Moreover, SQL is not confined to a singular database management system; it is implemented across various platforms, including MySQL, PostgreSQL, Microsoft SQL Server, and Oracle Database. The ANSI SQL standard provides a common ground, ensuring a degree of compatibility and portability across different database systems.

It is used for:

- Database Creation and Design
- Data Querying
- Data Modification
- Data Integrity and Constraints
- Database Security
- Transaction Control

Snapshots

1.Landing page of the Budget Buddy

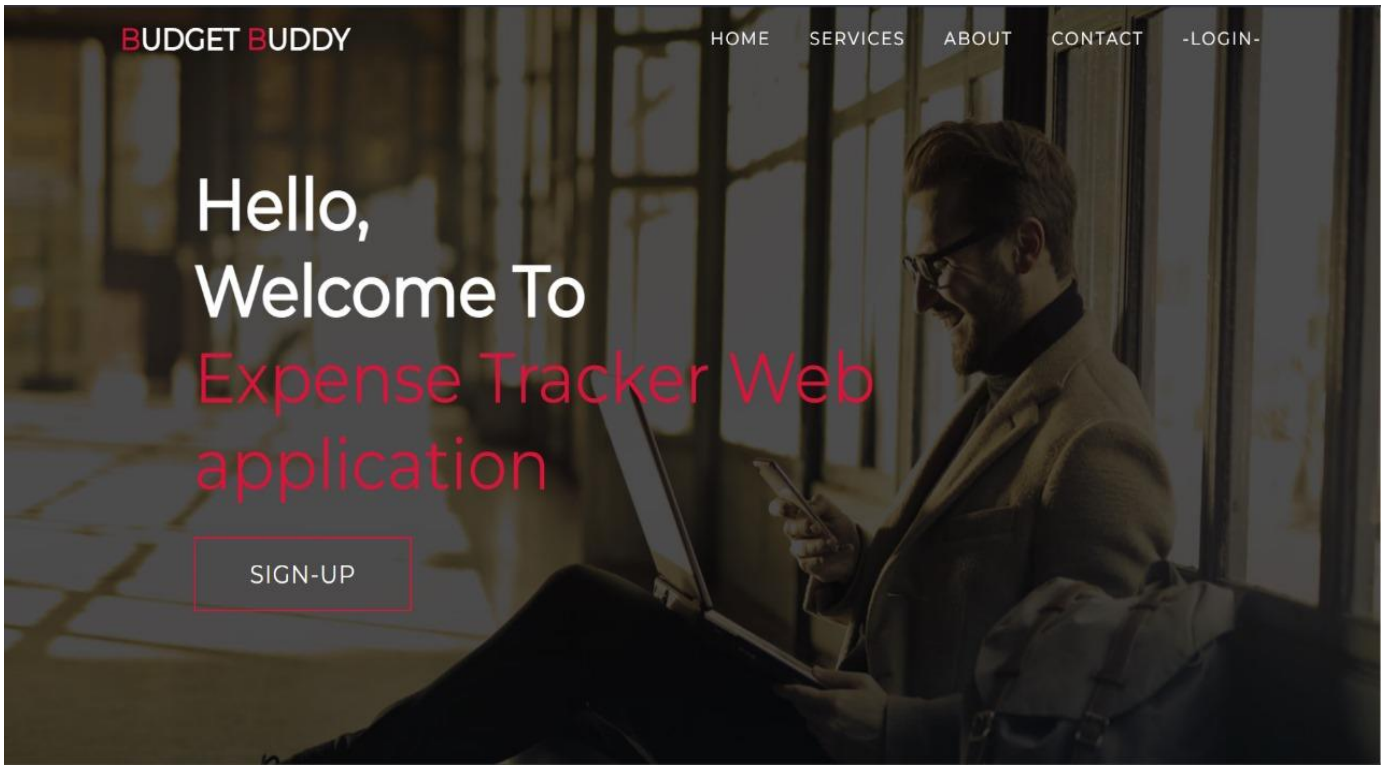


Fig. 1.1

2.This snapshot shows the services page which shows you what services will be provided to you by this website.

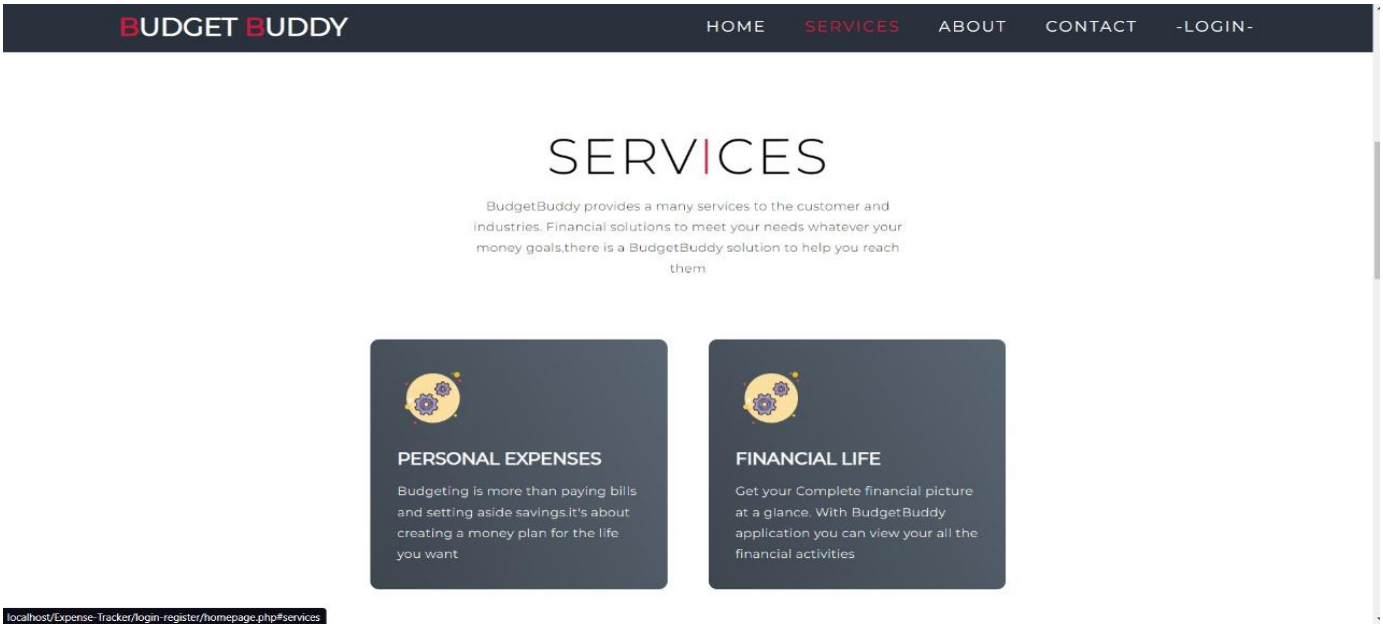


Fig. 1.2

3. This snapshot shows the about page, which tells about the website.

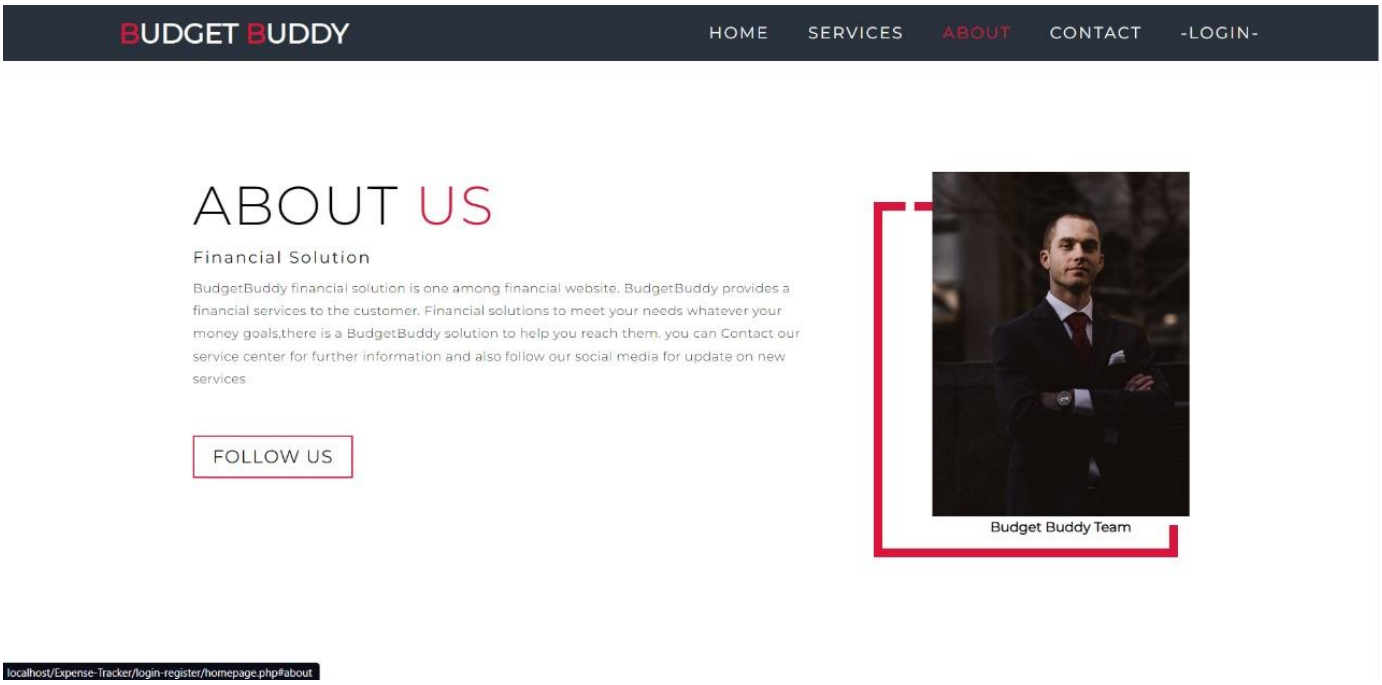


Fig. 1.3

4. This snapshot shows the contact info page, this page contains the information regarding how you can reach us.

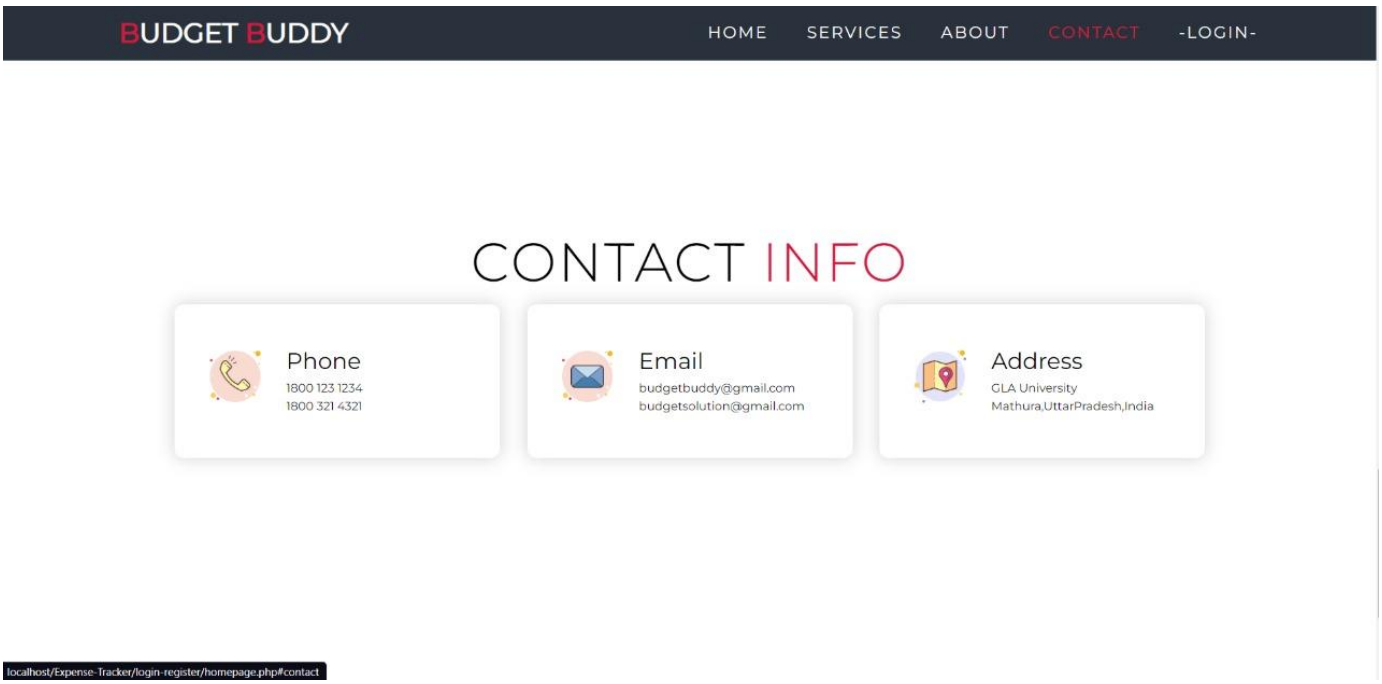


Fig. 1.4

5. This snapshot shows the Login Page , after logging in you will be redirected to your personal expense tracker.

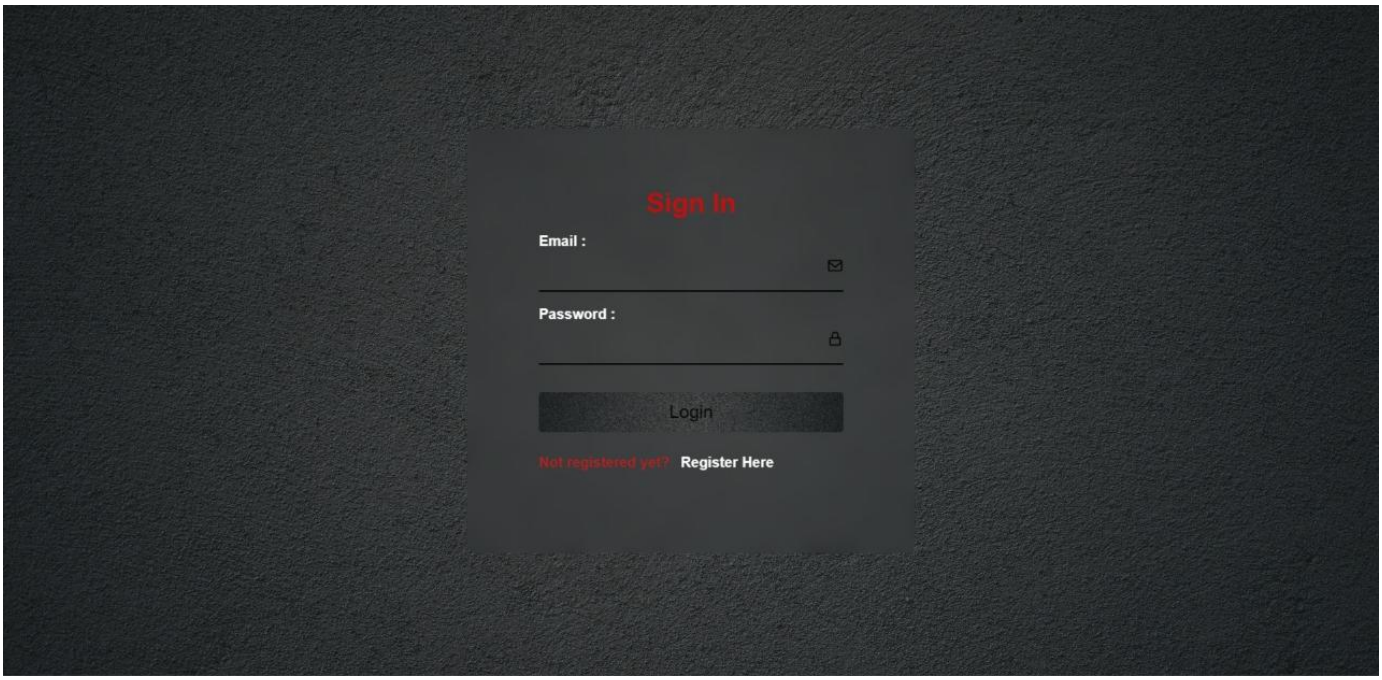


Fig. 2.1

6. If you are not a registered user then you have to register first then go to login page to go to expense tracker.

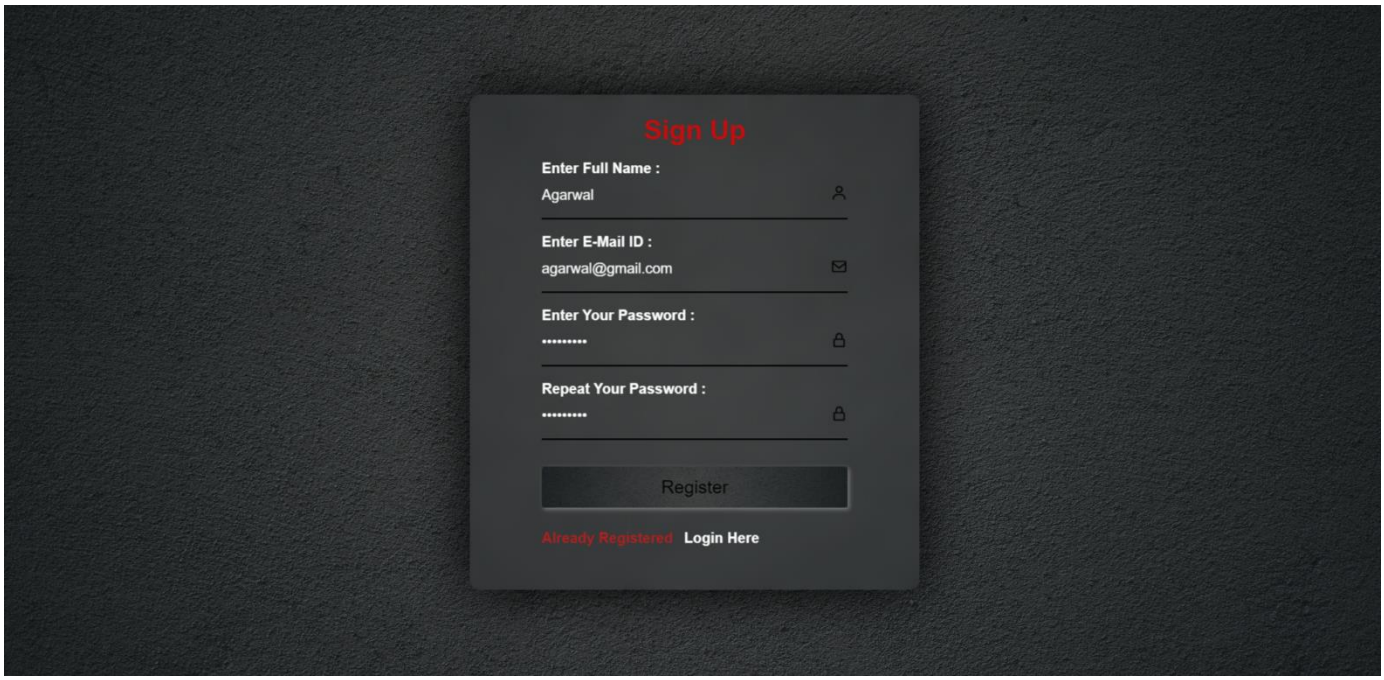


Fig. 2.2

7. This snapshot shows the snap of a SQL database where the data of registered users is stored

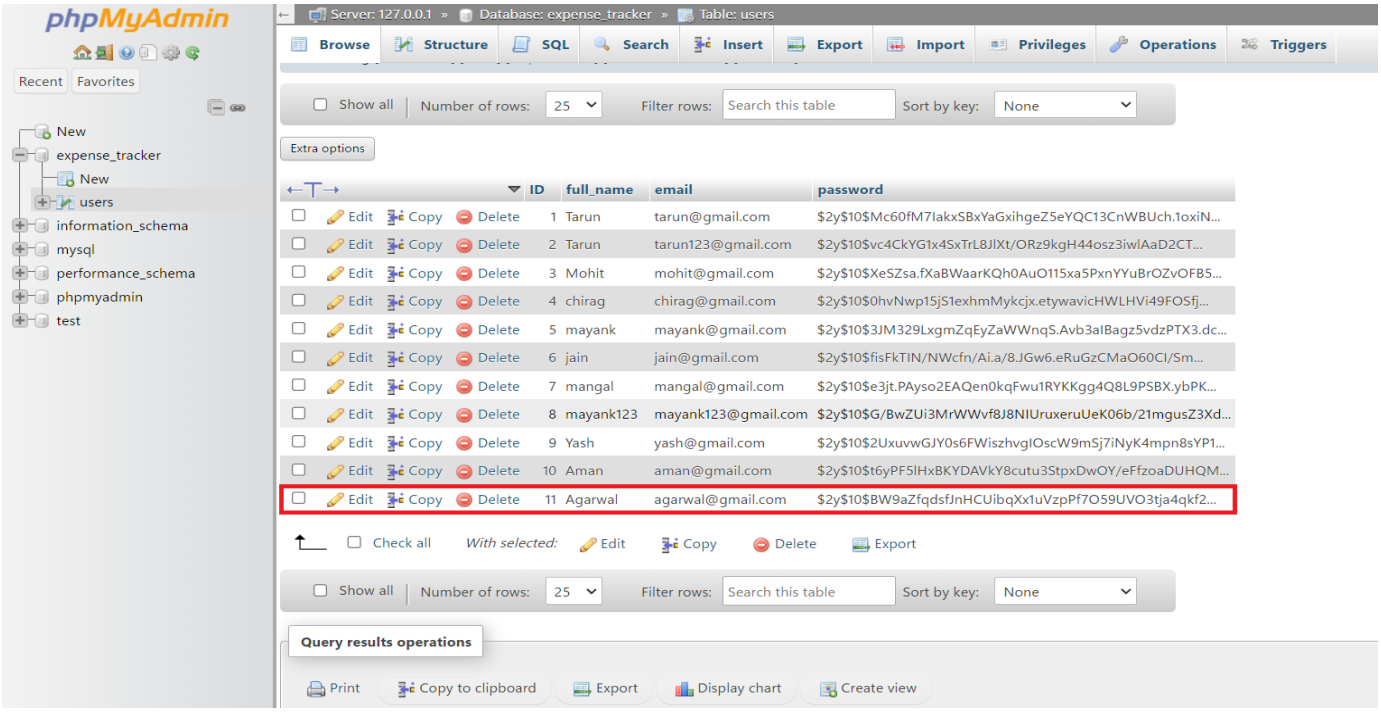


Fig. 3.1

8. This snapshot shows the Tracker page where you can enter your income/expense category, amount, date then click on submit to store the data.

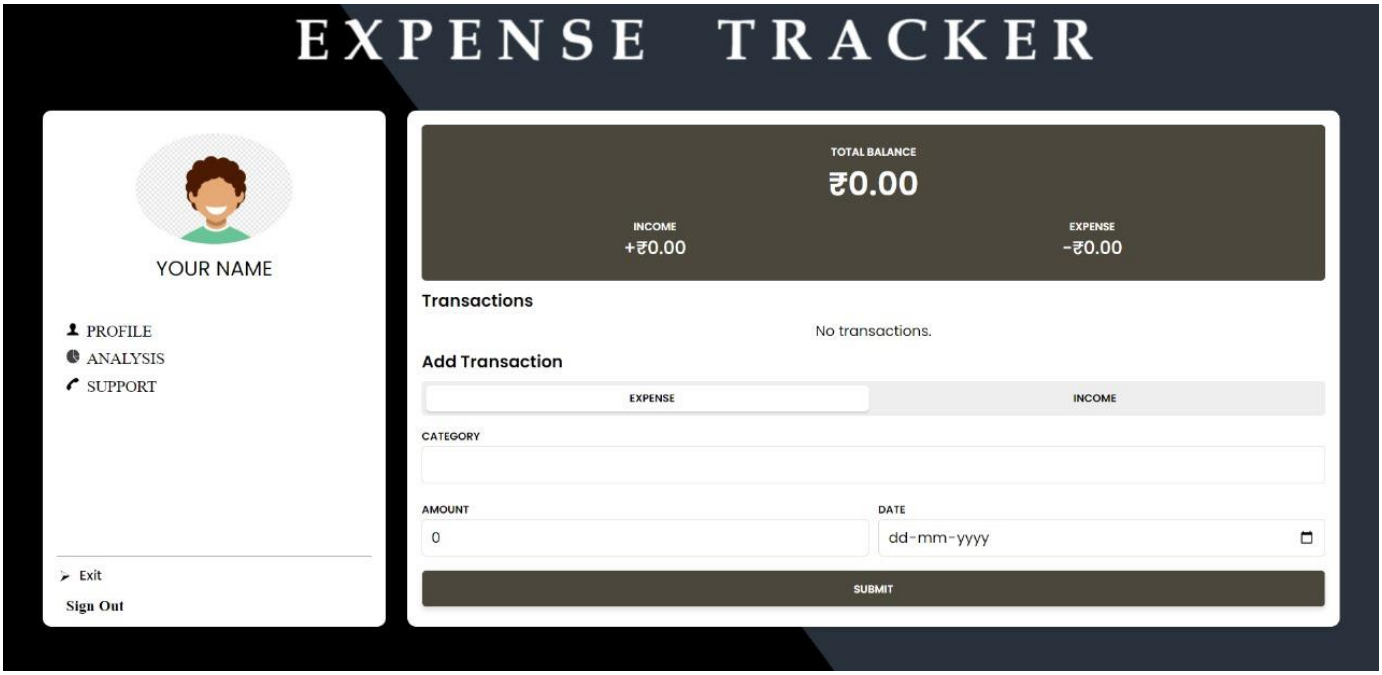


Fig. 4.1

Conclusion

In conclusion, the development and implementation of our Expense Tracker website mark a significant stride toward providing users with a robust and intuitive tool for managing their finances. Throughout the project, our team has meticulously crafted a user-centric platform that addresses the diverse needs of individuals seeking to gain control over their expenses.

The website's user interface has been designed with a focus on simplicity and accessibility, ensuring that users can effortlessly navigate through the application. From the streamlined homepage to the secure login page and the feature-rich Expense Tracker itself, every element has been carefully considered to deliver a seamless and user-friendly experience.

Looking ahead, our commitment to continuous improvement remains unwavering. We recognize the dynamic nature of personal finance and will continue to enhance the Expense Tracker website with updates, new features, and optimizations. User feedback will be integral in shaping the future development roadmap, ensuring that the platform evolves in tandem with the evolving needs of our user base.

Future Scope

For potential future work, the project could focus on refining user experience by enhancing the interface and exploring mobile application development. The integration of machine learning algorithms for expense predictions, collaborative features for shared expense tracking, and advanced budgeting functionalities could significantly improve the application's capabilities. Security audits and continuous enhancements are crucial to maintaining data integrity, while localization and globalization features would make the tool accessible to a broader audience. Introducing unique engagement elements, customizable reporting, and educational resources could further engage users and empower them to make informed financial decisions. Finally, cross-platform compatibility ensures seamless access across various devices and platforms, ensuring the project's adaptability to evolving user preferences and technological advancements.

Biblography

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2. **https://www.wikipedia.org/**
3. **https://github.com/**
4. **https://developer.mozilla.org/en-US/**
5. **https://www.w3schools.com/**

Github link of our project

- **https://github.com/mangaljii0412/ExpenseTracker**