2021

Expense Tracker System

AD PROJECT REPORT

TEAM EXPENSE MANAGER

EXPENSE MANAGER PROJECT REPORT

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Team

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- Harshil Bagthariya
- Anurag Bej
- Rudra Brahmbhatt
- Dhairya Changela
- Darsh Turakhia
- Dhairya Vora

Abstract

This main aim of the report is to describe the working and explain various modules used in our project. The main audience targeted in this project is the college going students who are financially dependent on their parents and require a robust model to manage their expenses. The application is completely user friendly and has an easy-to-use interface. This application makes it easier for their users to easily track their expenses using graphs and charts. We have kept in mind the various drawbacks in the existing solutions and try to make up on those drawbacks.

Introduction

This web application has various different modules such as bills (to keep a record of the bills you pay), wallet (to keep a track of the available balance), transactions (to store and view all your transactions). The tasks were mainly divided into 2 teams namely frontend and backend. Languages Used to make this project include HTML, CSS, Java Script, PHP AND MySQL. All the data such as username, passwords, expenses of users everything is stored using php and mysql.

Expense manager is a website which anyone can use through their smartphones, tablets or computers. It shows the users salary and savings in the form of a pie chart which will allow the user to easily understand their expenses. It also allows the user to enter the bills they have paid. Also gives them a different module to enter their daily transactions/expenses and also gives them a line graph describing their daily expenses. It also gives the users a different module for the commonly available goals. Although targeted for college students anyone interested to manage their expense can use this website. We have also added a contact us module where the users can directly contact the team and provide their valuable feedback or any suggestions. They can also suggest any updates or changes they would like to see in the existing website. In the salary module they can update their salary which will be used to calculate the amount they are able to save after paying off their bills and their daily expense. In the account module they can see a summary of their wallet i. e. the amount spent on bills, daily expenses, salary and the amount left with them in their hand. The same module will tell the user where can they cut-off in their daily expenses. The daily expenses module also allows the user to export the whole database in the format of a excel sheet. The user can also list all the bills they have paid and all the daily expense they have made in their respective modules.

Analysis

- The analysis that our team conducted was broadly divided in 2 parts namely conducting a research on all the existing solutions and secondly finding out the drawbacks in them so that we can overcome them in our solution.

Existing Solutions

- There is a wide range of existing solutions available over the internet.
- The general conclusions that the team made are is stated: -
    - All the apps or sites allow the user to enter their expenses and then they display graphs or pie-charts to give them an idea of their expenses.
- Evaluation of Existing Solutions
    - The major drawbacks in the solutions that the team explored was that none of the existing solutions provided a solution which would allow the user to save and cut-down on their expenses.

Project Plan

- The project plan is as follows: -
    - To discuss the method of execution of the project and take in the necessary skills such as knowledge of PHP, JavaScript, GitHub, AGILE, etc forehand so the execution occurs without any major complications.
    - Design the front pages using HTML, CSS and JavaScript which the user will use to interact with the application.
    - Also store the transactions or entries of expenses or the bills entered by the user to database using PHP and MySQL.
    - Design a robust login/signup system which will allow the users to access their existing accounts/ register to our site.
    - Use PHP libraries and JSON to make charts from the expenses entered by the user in database.
    - Allow user to add goals for the month and check whether they are able to fulfil the same or not.

Languages Used

- **HTML**
  - Mainly used for front-end part.
  - HTML stands for HyperText Markup Language it is used to create web pages using the markup language. In our project we have used HTML to create all of our main pages.

- **CSS**
  - Mainly used for front-end part.
  - CSS (Cascading Style Sheets) is a style sheet language for defining the appearance of a document written in a markup language like HTML. Along with HTML and JavaScript, CSS is a key component of the World Wide Web.

- **JavaScript**
  - Mainly used for front-end part.
  - JavaScript (JS) is a first-class compiled programming language that is lightweight, interpreted, or just-in-time compiled. It is used to add effects or to some extent in validation so that the load on the server is reduced and some of the work is done by the user end.

- **PHP**
  - Mainly used for back-end part.
  - PHP stands for "**PHP**: Hypertext Preprocessor" it is an open-source scripting language and is executed on server side. In this project all of our logic is mainly implemented using JS and PHP as it has many pros like we can connect to our database via php and access, manipulate data seamlessly.
  - PHP has many benefits even today when it's first version was introduced in 1994

- As it is compatible with almost every server OS out there and has almost all functionality that a developer might need.

- **JSON**
  - Mainly used for back-end part.
  - JavaScript Object Notation (JSON) is a lightweight format for storing and transporting data. It is often used when data is sent from a server to a web page. It was used by us in our project for dumping the data from sql to create charts and allow user to view it.

Technologies Used

- **GitHub (Web and Desktop)**
  - Git is used to store the source code for a project and track the complete history of all changes to that code. It allows developers to collaborate on a project more effectively by providing tools for managing possibly conflicting changes from multiple developers. GitHub allows developers to change, adapt and improve software from its public repositories for free, but it charges for private repositories, offering various paid plans. Each public or private repository contains all of a project's files, as well as each file's revision history. Repositories can have multiple collaborators and can be either public or private. In this project were heavily dependent on GitHub as it is one of the best VCS (Version Control System) out there.

- **Xampp and Workbench**

  Both of them are synonyms to each other. They helped us in storing values to database over our pc on the localhost. This technology was mainly used with the PHP to store all the values that the user entered in our database. It was used in the following modules: -
  - Email verification to store status of verification and code sent over the mail.
  - Bills Module to store the bills of the user along with date.
  - Login-Signup Module to store the username, email, password of the user.
  - Transaction Logs Module to store expenses of the user with date & time.
  - All the tables that were made using these tools are given below along with their schemas.

- **Dreamweaver**

- This tool was mainly used by the frontend team to create the dynamic webpages using HTML, CSS and JS.
- This helped us a lot in designing the frontend pages.

- **Visual Studio**
  - It is an integrated development environment from Microsoft.
  - It was used by our us to create both front-end and back-end pages.

- **Sublime**
  - It is a free cross platform code-writer with Python application.
  - These tools were used by both the teams (front-end and back-end).
  - It was used to design pages using PHP i. e. link front-end and back-end pages.

Website out-flow

We have used mainly 3 tables to store entire data of website: -

1) user_login_test
    a. used to store details of all the users
2) user_master
    a. used to store the username of all users
3) username_table
    a. used to store transactions of the said user - it is dynamically created for all users
4) usertable
    a. used to store the code sent on email to the user also store status of email verification
5) bills
    a. used to store the bills of user

- Table Schema's

user_login_test

Column Name	Type	Comments
username	String	Primary Key
password	String	
email	String	
created_at	Datetime	Automatically store time of creation
table_name	String	Stores the table name where transactions of user will be stored

user_master

Column Name	Type	Comments
username	String	Primary Key

username_table

Column Name	Type	Comments
id	String	Primary Key

amount	Int	
purpose	String	
date	String	Automatically store date of data entry
time	String	Automatically store time of data entry

usertable

Column Name	Type	Comments
name	String	
email	String	
password	String	
code	Int	Automatically store code sent on user's email
status	String	Stores the status of verification of email

bills

Column Name	Type	Comments
category	String	
amount	Int	
date_of_bill	String	Will store the user selected for bill payment

Agile Methodology

We have used and followed the agile methodology in the making of this project.

As a part of agile methodology our team conducted regular meetings every week to discuss the progress of our project.

Following the agile methodology practices each and every team member used Whatsapp as a communication platform to convey our messages.

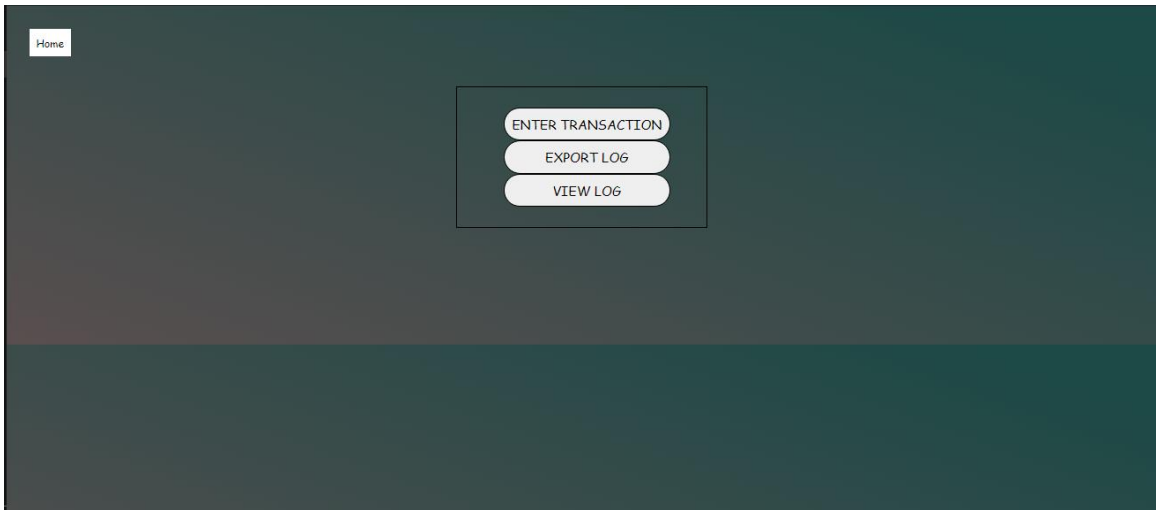
GitHub was used as a common platform to upload our code and exchange or update the source code in our source files.

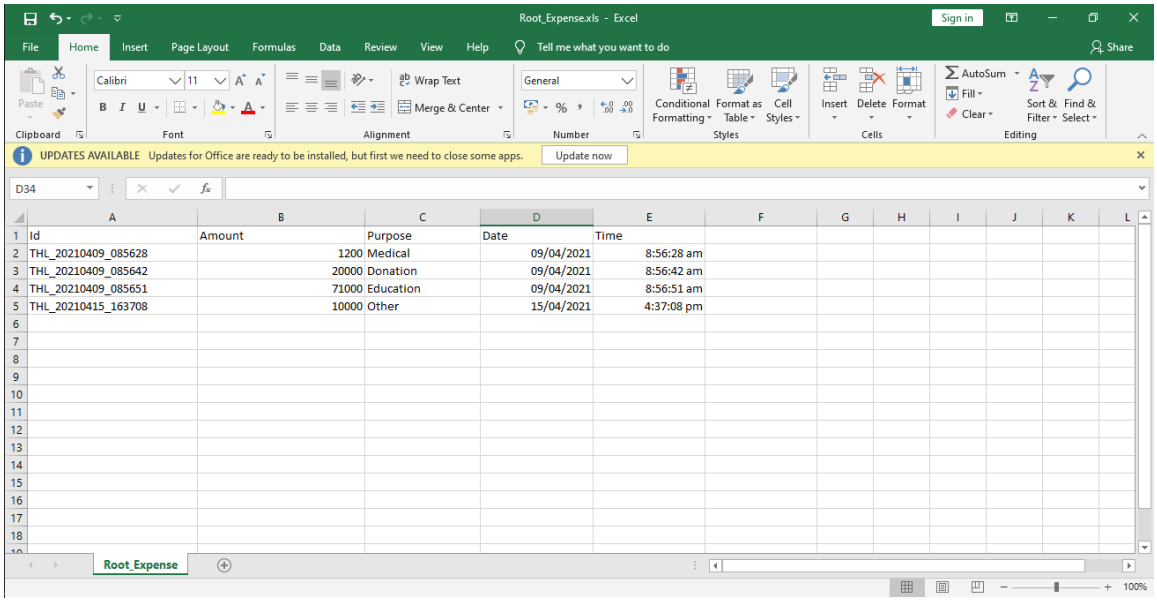
Also, the user can make entries in the database of his/her transactions by using the fields provided. An amount field is added which allows the user to enter the transaction amount and a dropdown menu which defines the purpose of the transaction.

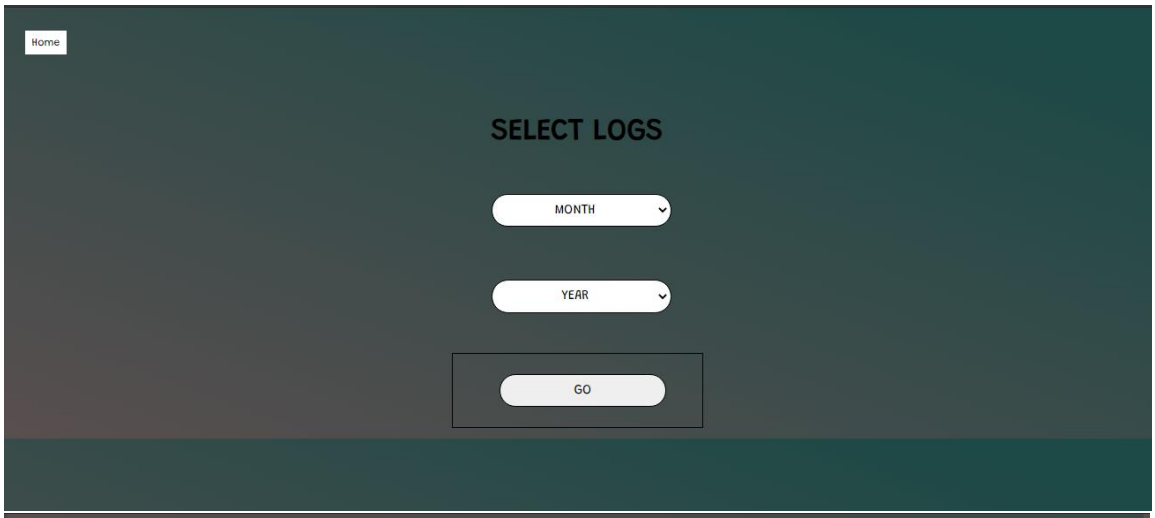
As soon as the log is updated the user is redirected to a php page where the entry is displayed alongside two buttons are given "export log " and "view log ".

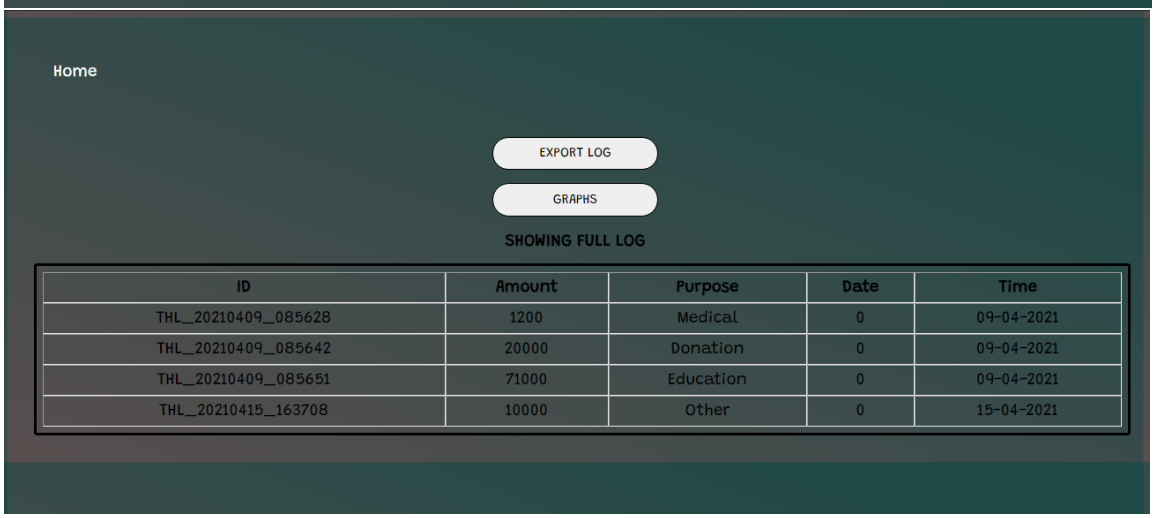
Export log exports full transaction log (with all the entries) into an .xls formatted file, while the view log option allows user to pick the year and month for which the transactions are to be displayed. By default, full log is displayed.

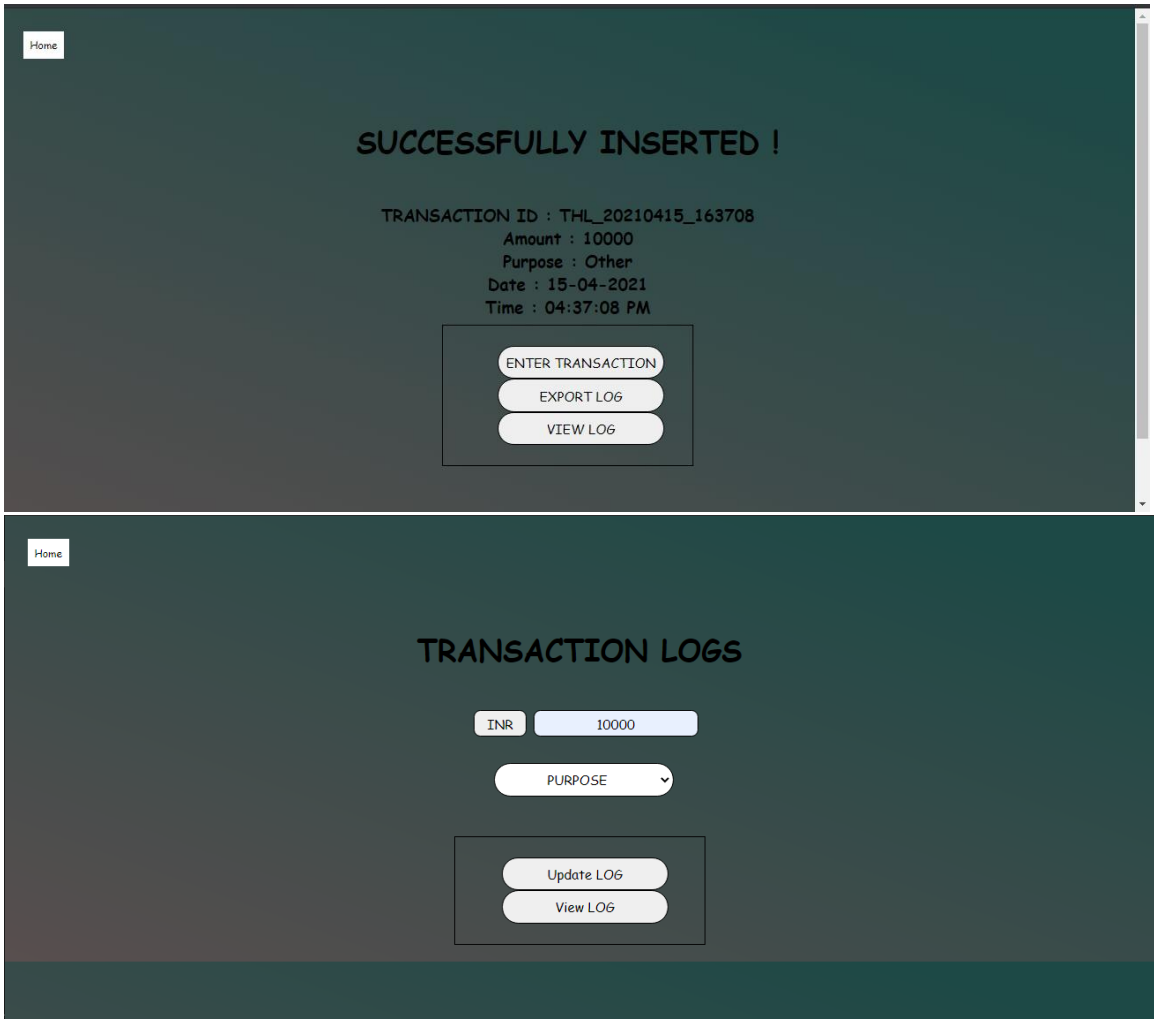
Also, from the user can export logs from the logs page.




Root_Expense.xls - Excel
Sign in
File
Home
Insert
Page Layout
Formulas
Data
Review
View
Help
Tell me what you want to do
Share
Paste
Calibri
11
Wrap Text
Merge & Center
General
Conditional Formatting
Format as Table
Cell Styles
Insert
Delete
Format
AutoSum
Fill
Clear
Sort & Filter
Find & Select
Clipboard
Font
Alignment
Number
Styles
Cells
Editing
UPDATES AVAILABLE Updates for Office are ready to be installed, but first we need to close some apps.
Update now
D34
Id
Amount
Purpose
Date
Time
THL_20210409_085628 1200 Medical 09/04/2021 8:56:28 am
THL_20210409_085642 20000 Donation 09/04/2021 8:56:42 am
THL_20210409_085651 71000 Education 09/04/2021 8:56:51 am
THL_20210415_163708 10000 Other 15/04/2021 4:37:08 pm
Root_Expense
100%


Home
SELECT LOGS
MONTH
YEAR
GO


Home
EXPORT LOG
GRAPHS
SHOWING FULL LOG
ID
Amount
Purpose
Date
Time
THL_20210409_085628 1200 Medical 0 09-04-2021
THL_20210409_085642 20000 Donation 0 09-04-2021
THL_20210409_085651 71000 Education 0 09-04-2021
THL_20210415_163708 10000 Other 0 15-04-2021



Aval Kotadiya (Goal Page)

Addition of the goals by the user. Common types of goals already provided and user can add their own goal other than that. Common types provided are:

a. House expense savings.

b. Credit card debt

c. Loans

d. Vacations and Trip savings

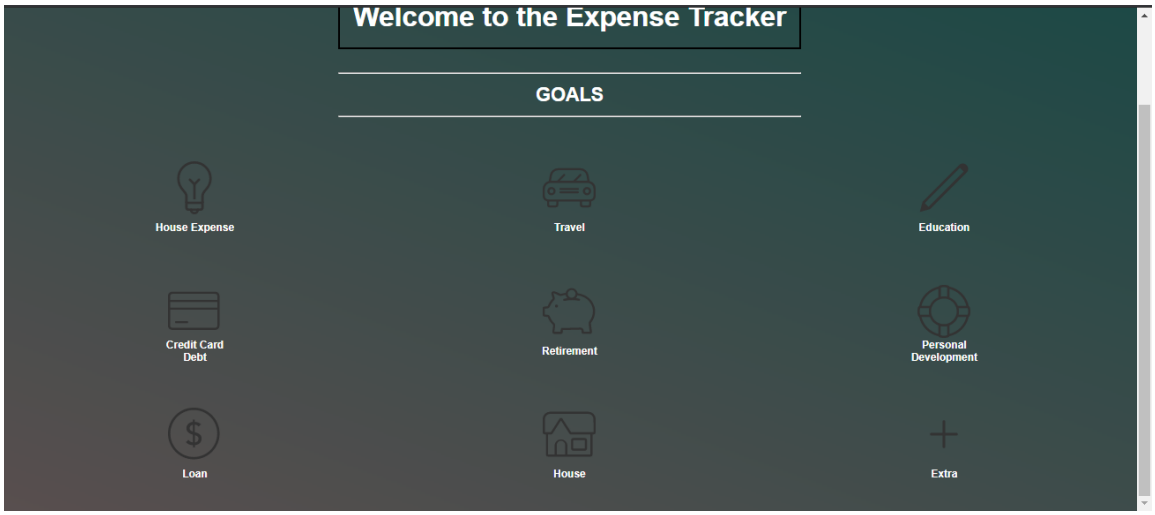
e. Retirement planning

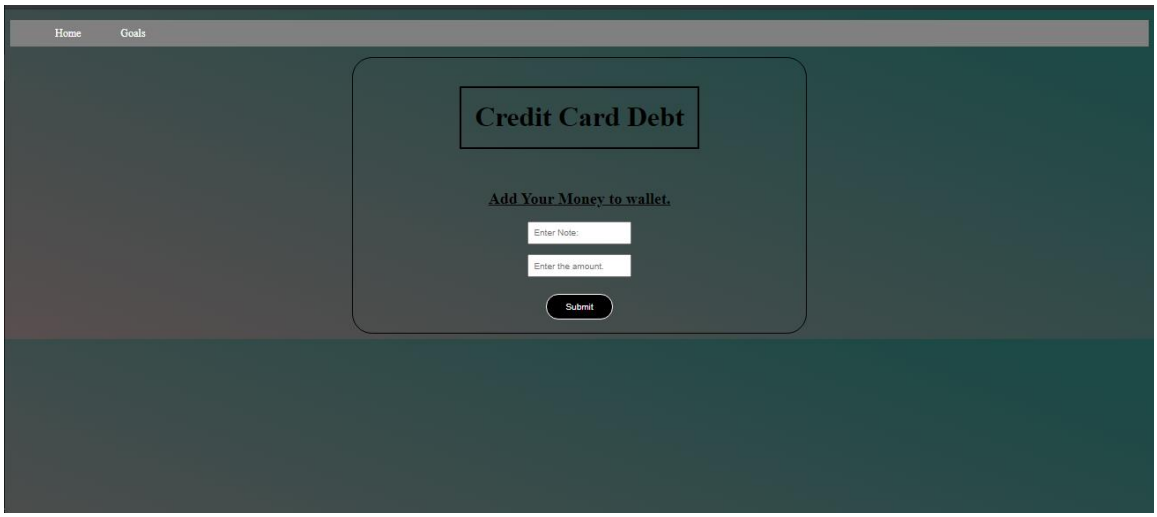
f. Saving for Future Investments in buying property.

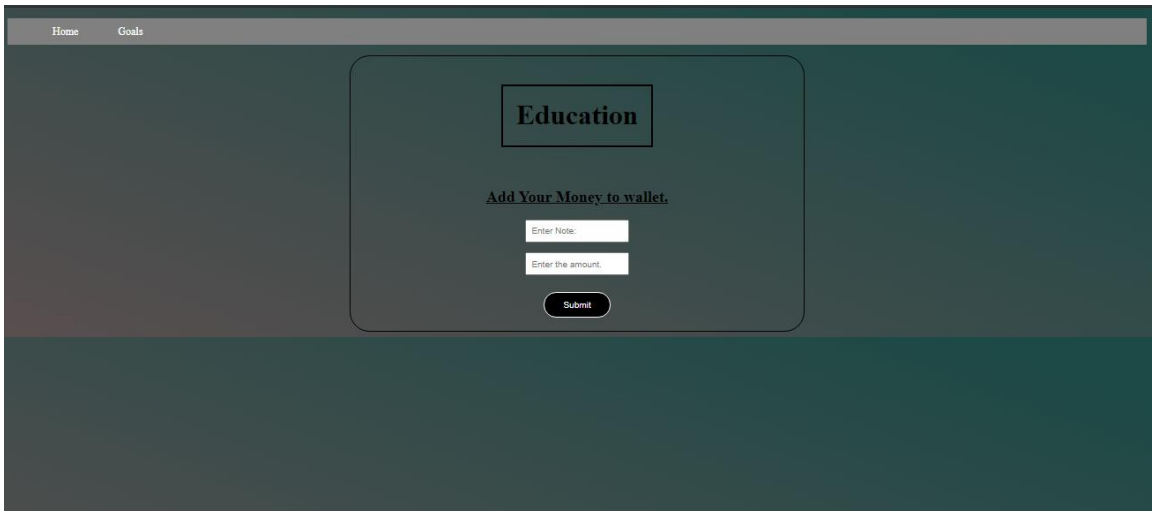
g. Savings for Education.

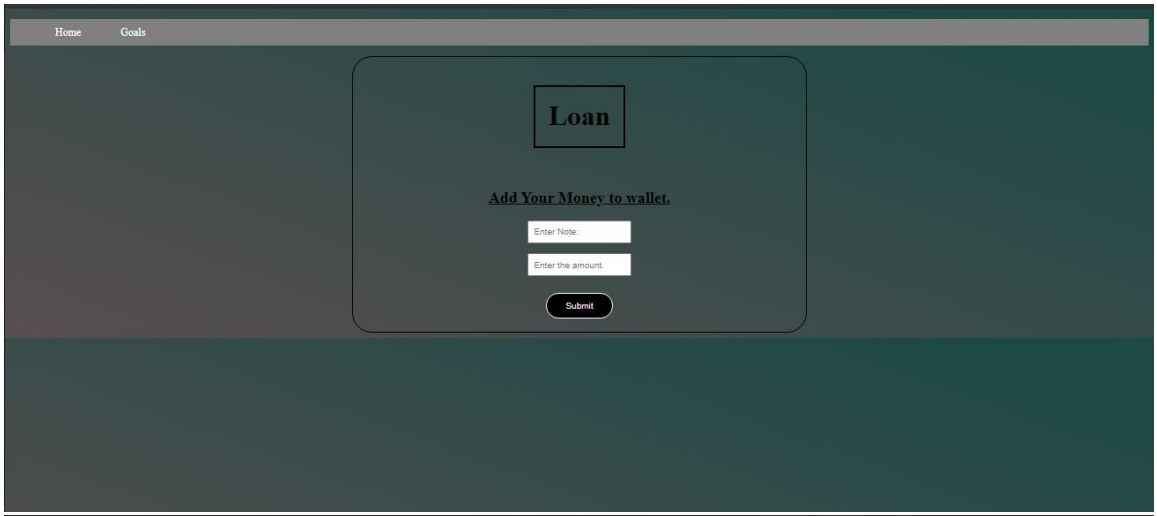
h. Saving money for Development of their property.

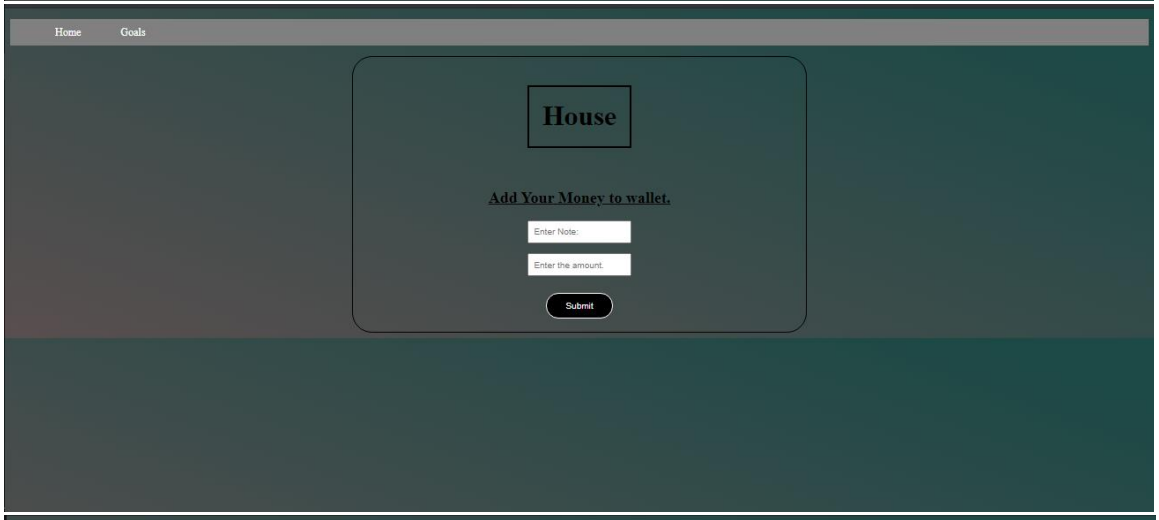
i. Others (Add Option available with user to add different goal than above mentioned).

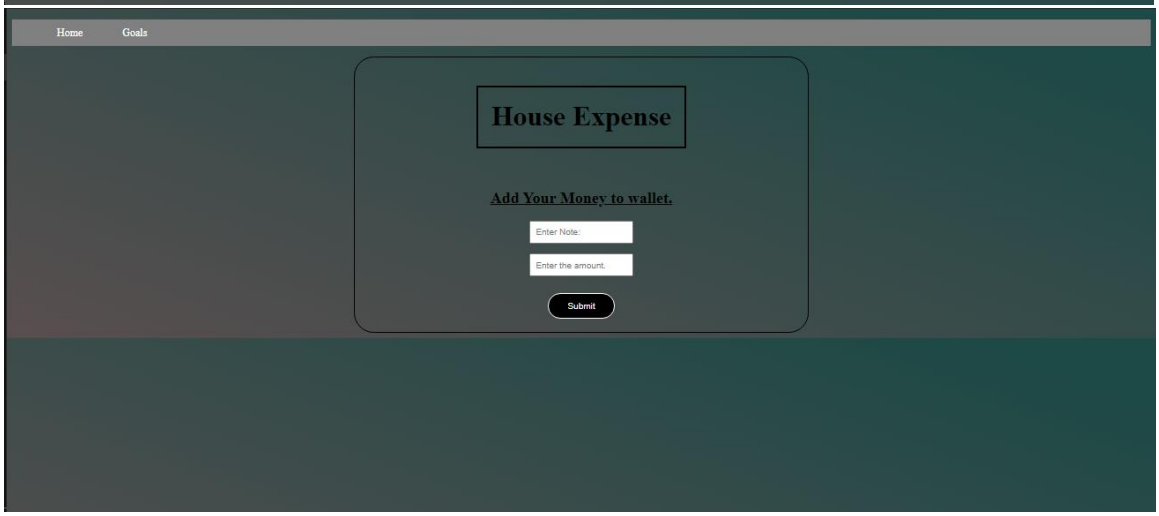


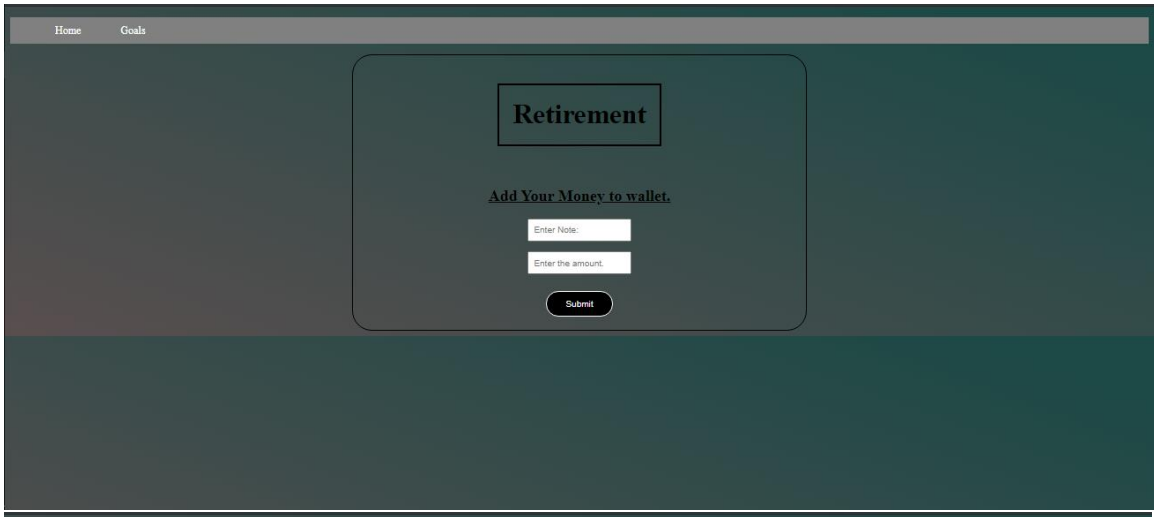


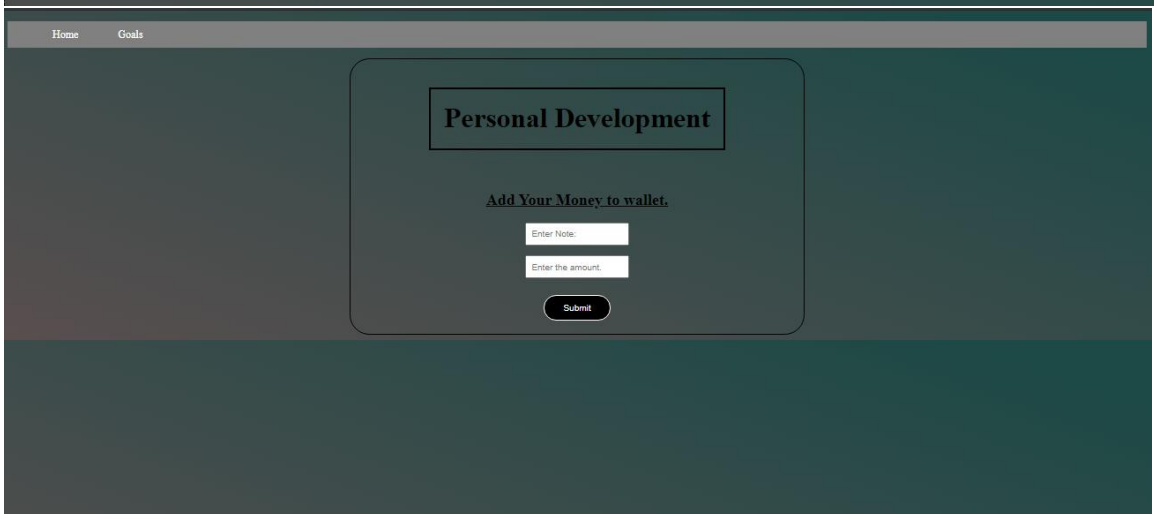


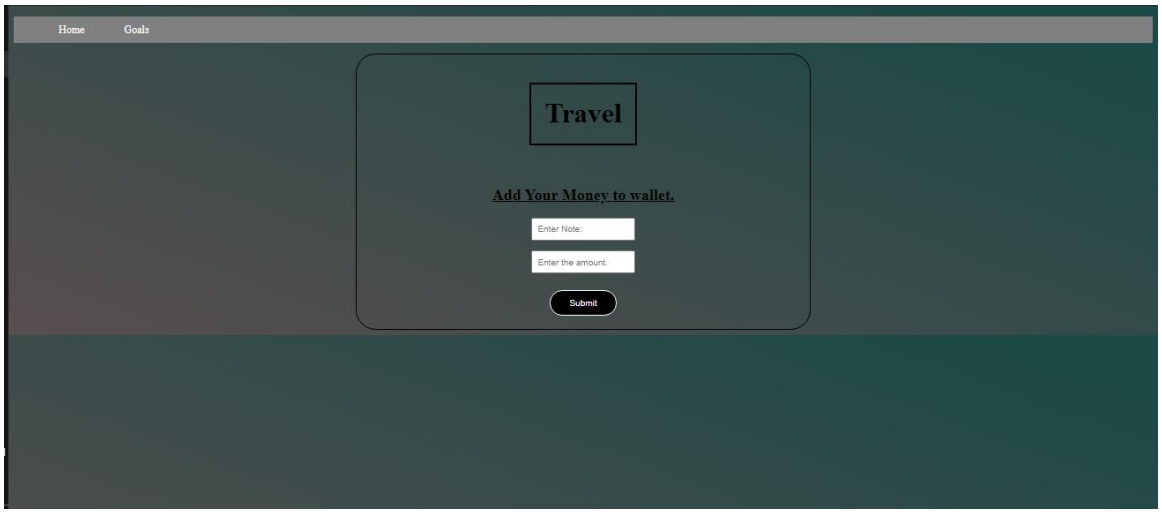

Home
Goals
Loan
Add Your Money to wallet.
Enter Note:
Enter the amount.
Submit


Home
Goals
House
Add Your Money to wallet.
Enter Note:
Enter the amount.
Submit


Home
Goals
House Expense
Add Your Money to wallet.
Enter Note:
Enter the amount.
Submit







Harshil Bagthariya (Wallet and Admin Page)

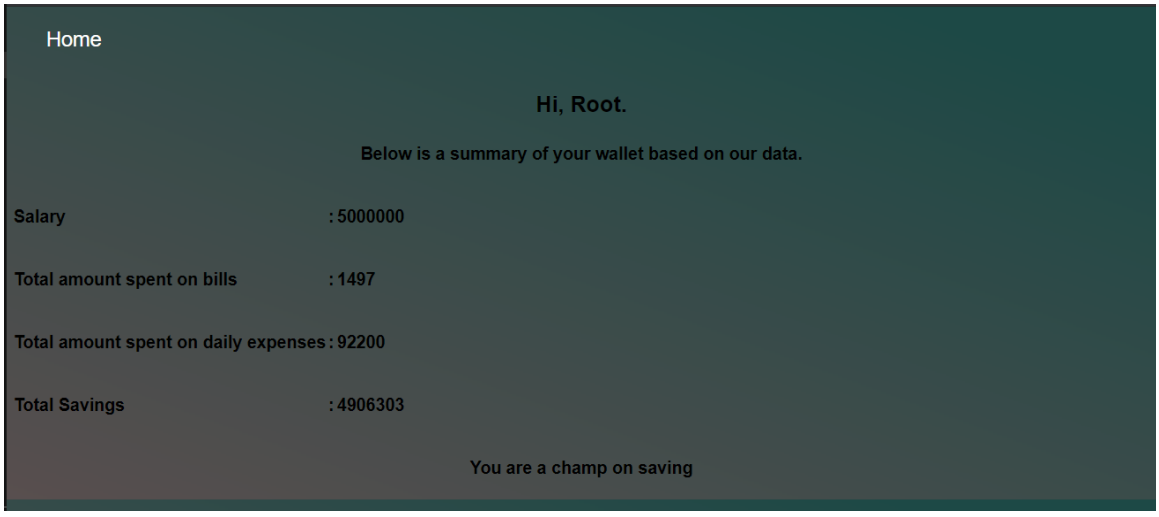
Wallet

Wallet is the total collection of the money that person has, wallet is the initial inflow of the money that user enters manually and then can track the expense. Debts, expenses and other transaction will

be deducted from wallet. They can view it any time. A graph will be also there which will show the income and expense, so that user can see their expenses and incomes that which one is increasing that specifically if expenses are increasing, what are the expenses. After 1 month a report will be generated in which his/her expenses/transactions will be list down which will collection of whole 1 month data, can download in .csv or google sheet also.

Admin Page

Admin page comes after the account is created. Admin page will be the page where user will interact with other web page such as Bills, profile editing, investing, goals, about etc. Admin will also have functionality of sharing wallet or adding the person to same account which feature will be helpful for family members.



Anurag Bej (landing page and Wallet)

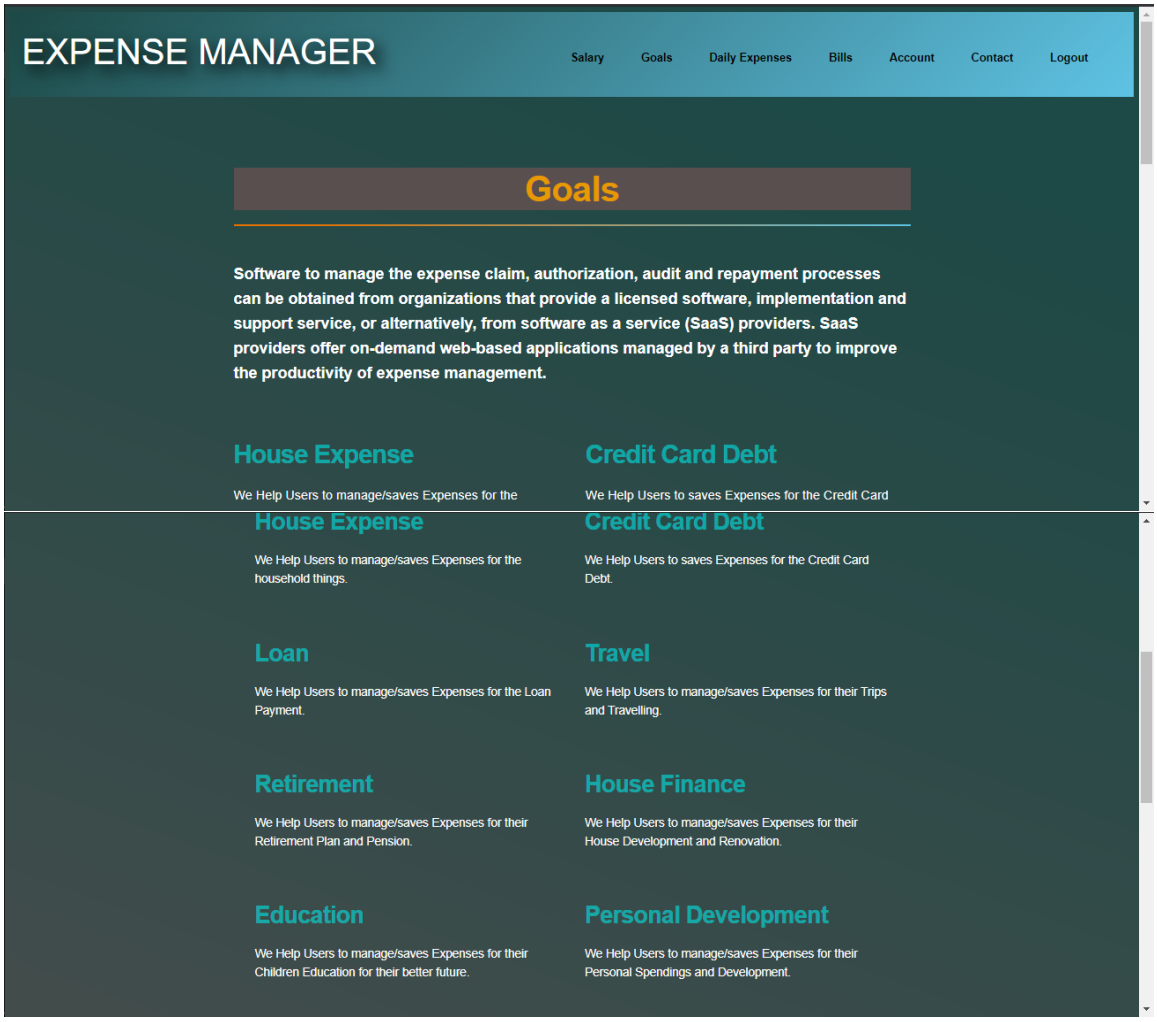
Landing Page

Connect your bank account and all your transactions with ethos. Connect your other E-wallets for complete overview of your cashflow. Add your cash expenses cashflow. Add your finance with beautiful, simple and easy to understand graphic. No need for complicated Excel sheets. See where your money goes and where they come from every month. See whether you spend less than you earn in one place and on 1 tap. Set smart budgets to help you not to overspend in chosen category. Know how much

you can spend daily in order to stick to your budget. Save money for your future dreams.

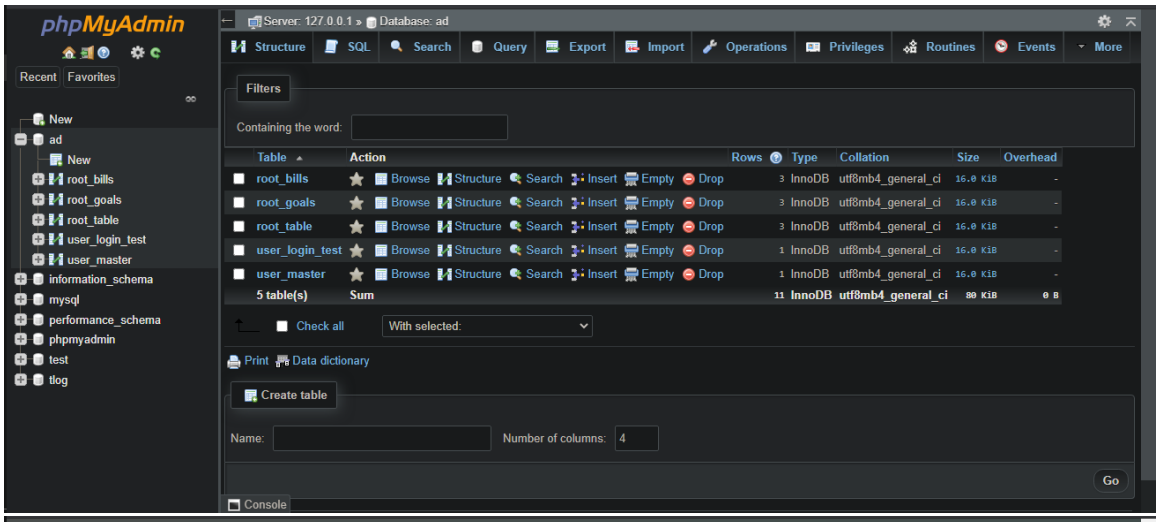
Wallet

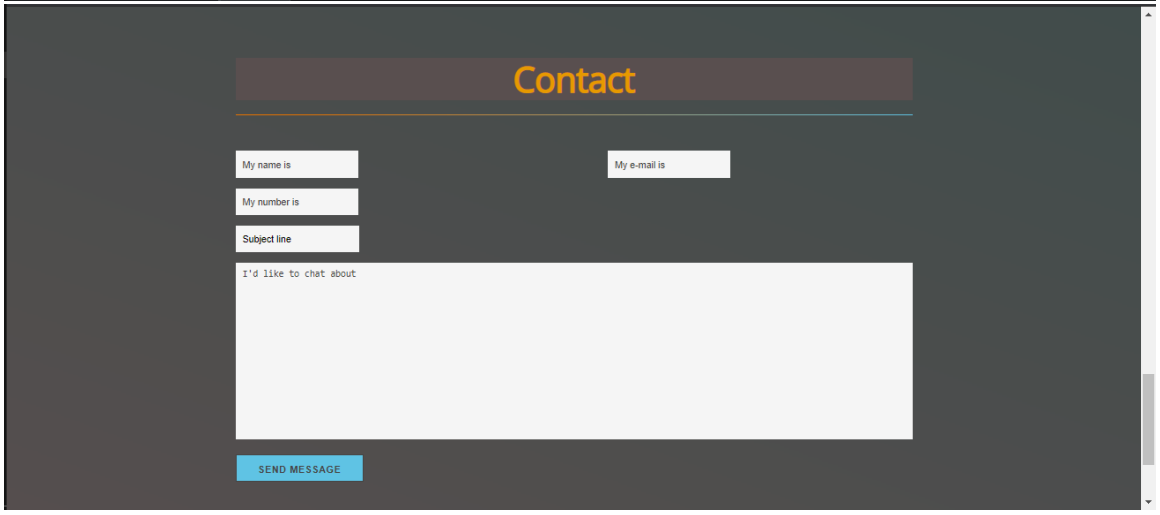
Wallet is the total collection of the money that person has, wallet is the initial inflow of the money that user enters manually and then can track the expense. Debts, expenses and other transaction will be deducted from wallet. They can view it any time. A graph will be also there which will show the income and expense, so that user can see their expenses and incomes that which one is increasing that specifically if expenses are increasing, what are the expenses. After 1 month a report will be generated in which his/her expenses/transactions will be list down which will collection of whole 1 month data, can download in .csv or google sheet also

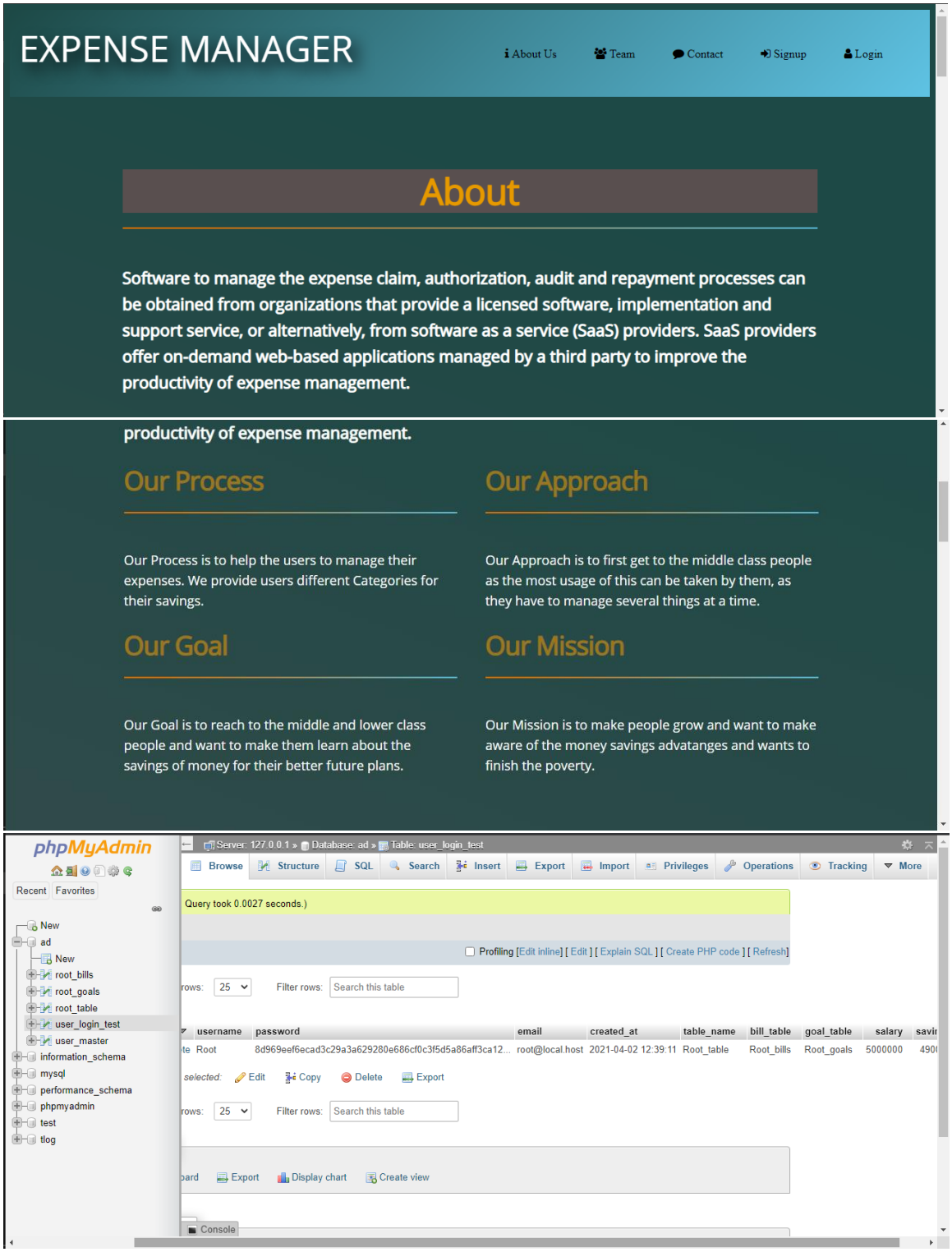


Rudra Brahmbhatt (Email Verification in Login-Signup Module)

This module is built using php, html, and css. It also emails verification by OTP (one time password). It has various functions such as password reset option and also forgot password, redirection to various other pages which can only be used after getting logged into the site. After submit the sign-up we send an OTP at entered email address. This module is built using php, html, css and js it uses php to store the values entered by the user into the database straight away. In forgot password user can give our email address and that email address we send otp than user can change their password.

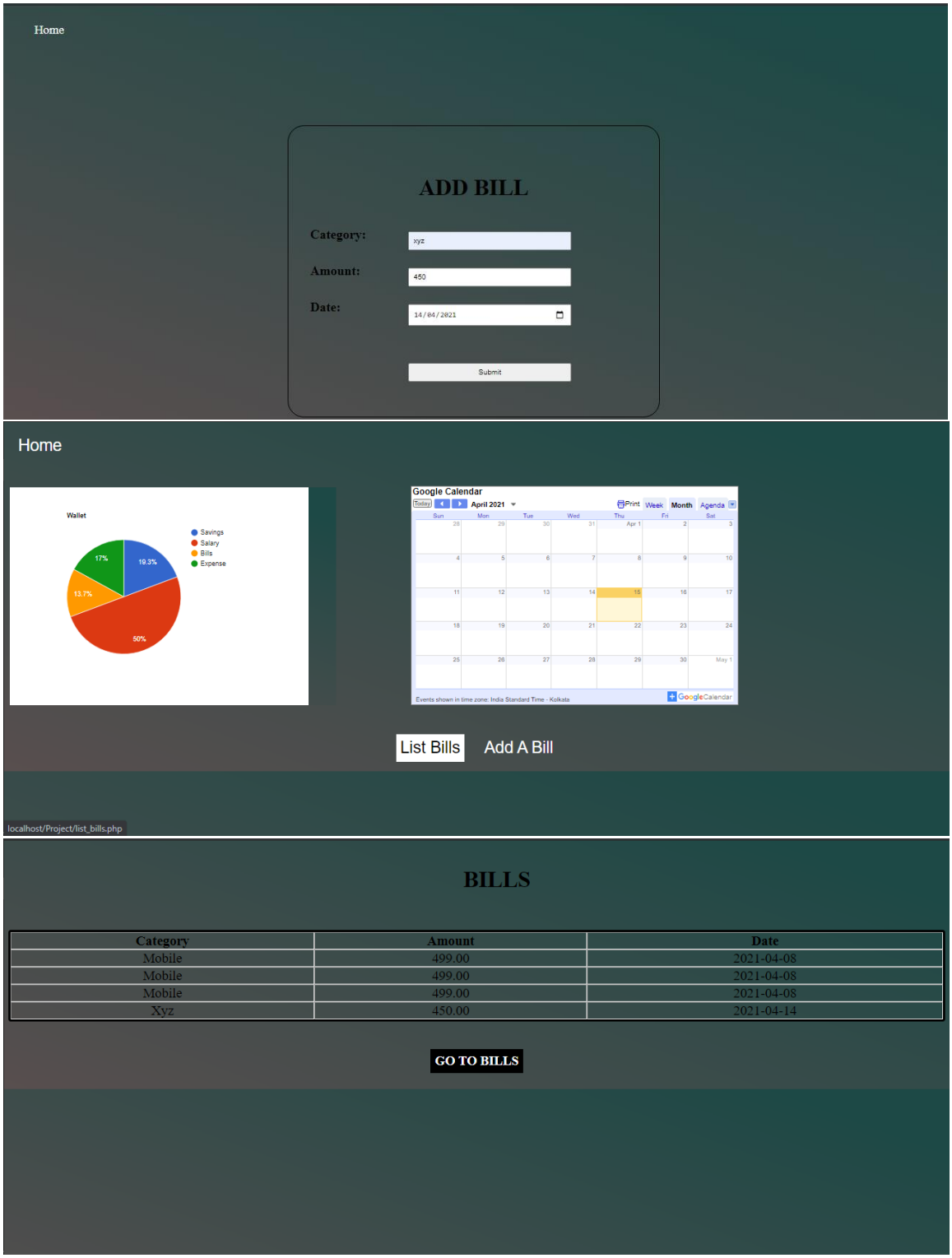






Dhairya Changela (Bill's module)

This module is made using PHP and HTML. This module allows user to enter the bills they have to pay or have paid already. It allows user to enter description and amount along with date of bill. Then the same is stored into database using PHP. It also shows the user their income and credits left.



Darsh Turakhia (Login-Signup Module)

Login In

It is only for users registered with our site.

This module is built using php, html, CSS and js it uses php to fetch the values entered by the user and verify it with those in the database.

It also stores password in a hashed format to prevent illegal use of user's account.

It has various functions such as password reset option, redirection to various other pages which can only be used after getting logged into the site.

On the first login of the user, it creates a table named as username_table where all of their transactions are recorder and stored.

Sign Up

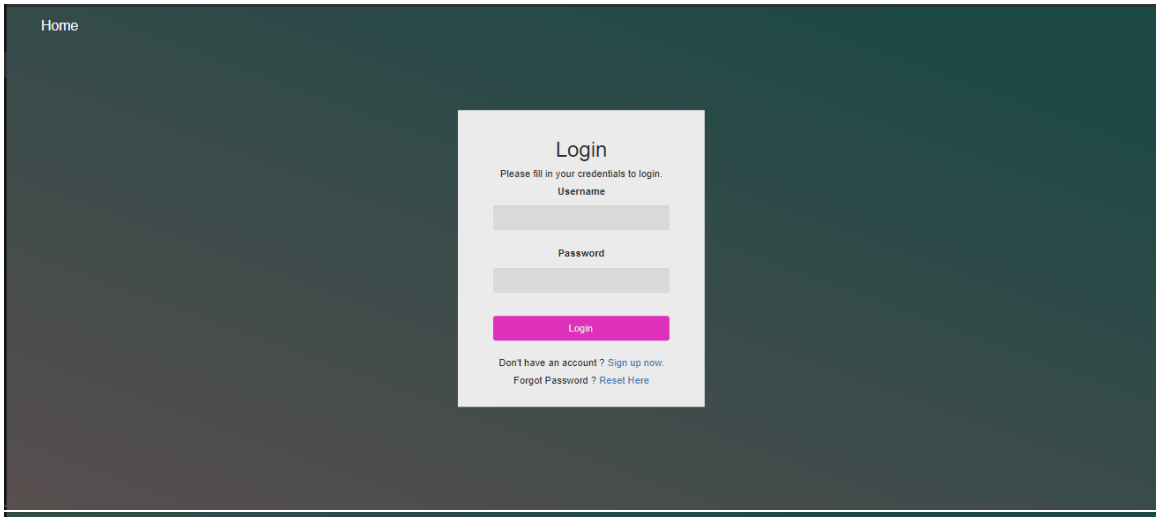
This module is used to allow various users login to the site to use our functionality.

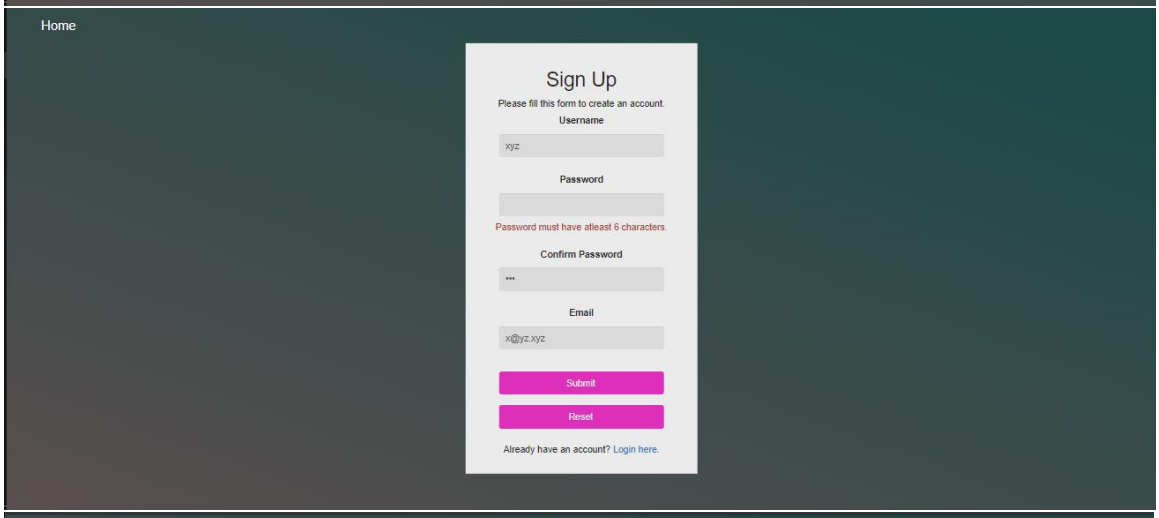
This module is built using php, html, CSS and js it uses php to store the values entered by the user into the database straight away, from where it can be accessed anytime for verification purposes.

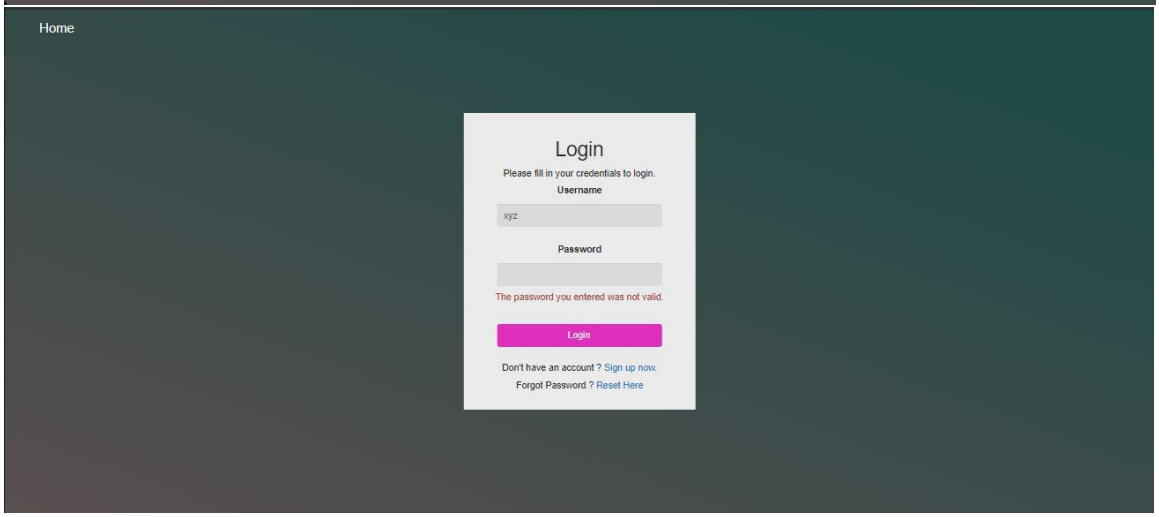
It also stores password in a hashed format to prevent illegal use of user's account.

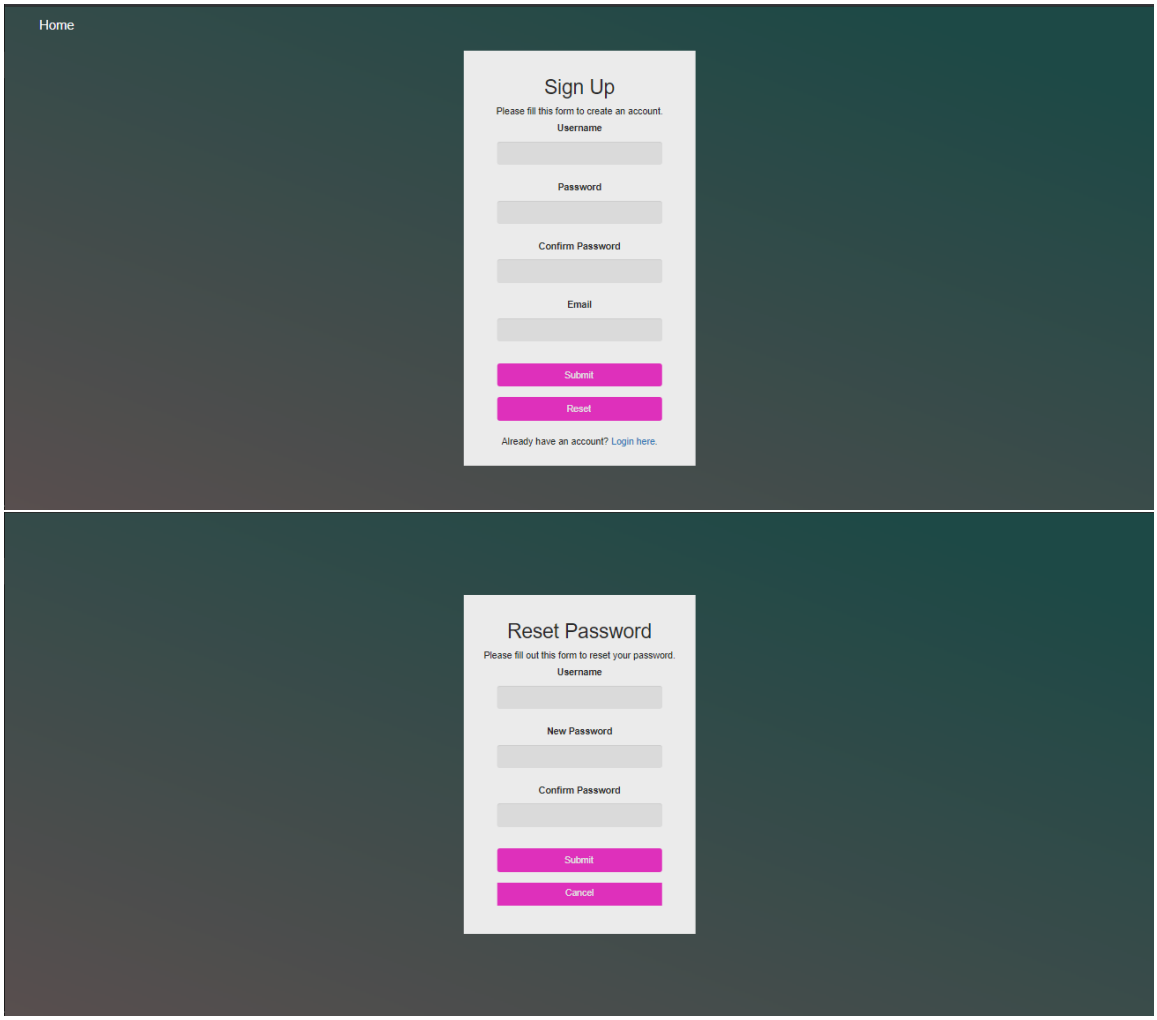
This module has almost all types of verification done before storing the values in database such as password must be at least 6 characters, email must have symbols like '@ and. ' at least once, also it checks that neither the username nor email are repeated.

After sign-up user is directed login page from where after login, they can access the whole website.


Home
Login
Please fill in your credentials to login.
Username
Password
Login
Don't have an account ? Sign up now.
Forgot Password ? Reset Here


Home
Sign Up
Please fill this form to create an account.
Username
xyz
Password
Password must have atleast 6 characters.
Confirm Password
Email
x@yz.xyz
Submit
Reset
Already have an account? Login here.


Home
Login
Please fill in your credentials to login.
Username
xyz
Password
The password you entered was not valid.
Login
Don't have an account ? Sign up now.
Forgot Password ? Reset Here

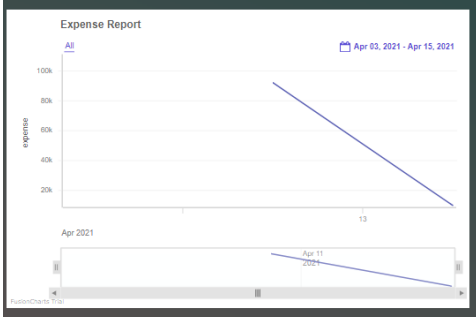


Dhairya Vora (Backend and Charts module)

My contribution in the project was to design the logic and working of the backend data management. In this project I further made a separate logic for login which was used in Darsh's login/signup page, furthermore I added the functionality of creating chart based on the dynamic data which is loaded from MySQL database and added to a JSON file and which is used to generate a chart. The chart also has the scrolling functionality and dynamically takes intervals based on the data's dateline. In further more I was in constant touch with everyone and did integration with Darsh and Aval, I also reviewed the code of my peer's and solved the errors in it. While doing all this I also stressed on that the AGILE practices are being followed.

Home

Area chart with time axis



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