

NALAIYA THIRAN REPORT
(IBM)
ON
PERSONAL EXPENSE TRACKER

Submitted by

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1. INTRODUCTION:

Project Overview:

Expense Tracker application will maintain data of daily, weekly, monthly, yearly expenses, Manages you expenses and earnings in a simple and intuitive way. User can select category of expense and amount of expense spent on each category . User can view and sort expense as per weekly, monthly, yearly. By using this, we can reduce the manual calculations for their expenses and keep the track of the expenditure. In this, user can provide his income to calculate his total expenses per day and these results will stored for unique user. People when usually go for trips or movies with friends ,etc

.They can use this tracker to maintain their expense. It will be easy for them to Share the bill in this tracker.This will display graph as per selected view. And user can enter his monthly income or limit of monthly Expense in this tracker. This tracker system provides an integrated set of features to help you to manage your expenses and cash flow.Then the user can get the best financial tips to save and grow money .

Purpose:

As per our Indian Constitution, Article 51A (h),

“It shall be the duty of every citizen of India to develop the scientific temper, humanism and the spirit of inquiry and reform”

Accordingly, we, the future engineers of this great nation, have developed this project with the following purposes:

- Prioritize Your Spending
- Become Aware of Poor Spending Habits
- Take Control of Your Finances
- Saving and Investment

2. LITERATURE SURVEY:

2.2 Existing Problems:

1. Expense Manager Application:

Year:Dec 2020

Author:A Velmurugan , J Albert Mayan, P Niranjana, Richard Francis

Description:

Mobile applications are top in user convenience and have overpassed the web applications in terms of popularity and usability. There are various mobile applications that provide solutions to manage personal and group expense but not many of them provide a comprehensive view of both cases. In this paper, we develop a mobile application developed for the android platform that keeps record of user personal expenses, his/her contribution in group expenditures, top investment options, view of the current stock market, read authenticated financial news and grab the best ongoing offers in the market in popular categories. The proposed application would eliminate messy sticky notes, spreadsheets confusion and data handling inconsistency problems while offering the best overview of your expenses. With our application can manage their expenses and decide on their budget more effectively.

Technology Stack:

Python, Flask, IBM DB2, Docker, Kubernetes, IBM Cloud, etc..

Result:

The future enhancement section. The application delivered efficiently in calculating split expenses and recording the expenses together accurately with date and time. We have developed a mobile application that keeps track of all of your daily transactions, keeps track of your money lent or borrowed, suggests you with the most effective investment options, offers your discounts in popular categories, view exchange and to read latest authenticated financial news. This paper's main aim to eliminate the use of sticky notes, spreadsheets and handling of large chunks of data is successful, the new experience is hassle-free and very handy.

2. Expense Tracker

Year: Apr-2021

Author: Aman Garg, Mukul Goel , Sagar Mittal , Mr. Shekhar Singh

Description:

This Expense Tracker is a web application that facilitates the users to keep track and manage their personal as well as business expenses. This application helps the users to keep a digital diary. It will keep track of a user's income and expenses on a daily basis. The user will be able to add his/her expenditures instantly and can review them anywhere and anytime with the help of the internet. He/she can easily import transactions from his/her mobile wallets without risking his/her information and efficiently protecting his/her privacy. He can see the accurate duration for how long a particular product is being used by him. The monthly, and year-wise comparison of expenditures will be done by the app which will let the user know the area where he is spending the most. The user will be able to see the detailed analyses with the help of graphical visualizations. This project will provide a lot of benefits to the users with the help of which they will be surely able to keep track of each penny. It is time to stop using paper and excel sheets to keep track of your digital as well as cash payments. Using paper is not easy to manage. It is common to delete files accidentally or misplace files. This expense tracker provides a complete digital solution to this problem. Excel sheets do very little to help in tracking expenses. Furthermore, they don't have the advanced functionality of preparing graphical visuals automatically. Not only it will save the time of the people but also it will assure error-free calculations. The user just has to enter the income and expenditures and everything else will be performed by the system. Keywords: Expense Tracker, budget, planning, savings, graphical visualization of expenditure.

Result:

Tracking your expenses daily can not only save your amount, but it can also assist you set financial goals for the longer term. If you know exactly where your amount goes every month, you will easily see where some cutbacks and compromises can be made. The project that we have developed is more efficient than the other income and expense trackers. The project successfully avoids the manual calculation which is performed usually in the absence of an expense tracker. The modules are developed efficiently and also in an attractive manner.

3. Personal Financial Management:

Year: June 2015

Author: Thulasimani munohsamy

Description:

Financial experts agree that while people have much more money today than they did generations ago, the amount of knowledge on how to manage that money hasn't kept pace- not at all (Maura Fogarty, 2012). Taking charge of planning and managing our finances and putting it into practice is very important for every individual. This is not only to set up our household budget but also to save, invest as well as plan for our retirement. In this writing, the meaning of financial management, the importance of financial management, how each individual can take steps to manage and plan their finances and the awareness of financial management in Brunei are discussed. The objective of this writing is to create awareness to people the importance of planning and managing their personal finances besides, educating the readers on how to plan and manage every individual's finances for their better today and future which also indirectly leads to the development of the nation.

Result:

Based on this writing, it can be concluded that it is very important for every individual to plan and manage their personal finances in order to lead a happy life. It is important for every individual to have personal financial plan in order to meet their financial goals and obligation, help to retire in comfort, achieve financial freedom, make rational financial decisions and take advantage of every financial opportunity. We are all not born with these knowledge, so it should be everyone's responsibility to learn the strategies to plan and manage our personal financial as this does not only help to lead us to a happy life but also contribute to the development of the nation in the long run.

4. Personal Finance Application:

Year: May 2022

Author: Oshin Rain

Description:

The main purpose to create a personal finance app is to manage private money, track spendings, and plan out a budget. These apps are also known as Money Saving apps because it enables the app users to borrow, lend, and even invest money. Personal budget management is a finance plan that allocates future personal income towards expenses, savings, and debt repayment. Past spending and personal debts are considered when creating a personal budget. Budgeting is the most basic and effective tool for managing our monthly income. But most people avoid doing it because they think keeping a record of budget or expense is a hectic task. Recording monthly expenses on paper are very difficult as modification, removal, and searching are not easy on paper. Similarly using any which run on our computers like MS excel or any other tool is also clumsy. Because we will have to note all expenses on paper then later record them all on the tool installed on a computer. Better solutions use mobile applications to keep a record of every expense easily at any location. In this project, our task is to develop an Android-based application that will be used to manage personal budget.

Result:

Personal finance is a term that covers managing your money as well as saving and investing. It encompasses budgeting, banking, insurance, mortgages, investments, retirement planning, and tax and estate planning. Personal finance is about meeting personal financial goals, whether it's having enough for short-term financial needs, planning for retirement, or saving for your child's college education.

5. Online Income and Expense Tracker:

Year:Mar 2019

Author:S. Chandini,D. Ranjith,V.J. Mohammed Akram,M.S. Vani.

Description:

Income and Expense Tracker will maintain data of daily, weekly, monthly, yearly expenses, Manages your expenses and earnings in a simple and intuitive way. User can select category of expense, enter other information like user can capture photo, add location, select amount of expense etc. And this will save to the local database. Users can view and sort expense as per weekly, monthly, yearly. By using this, we can reduce the manual calculations for their expenses and keep the track of the expenditure. In this, user can provide his income to calculate his total expenses per day and these results will stored for unique user. People when usually go for trips or movies with friends they can use this traker to maintain their expense. It will be easy for them to share the bill in this tracker.This will display graph as per selected view. And user can enter his monthly income or limit of monthly Expense in this tracker. This tracker system provides an integrated set of features to help you to manage your expenses and cash flow

Result:

Tracking your expenses daily can save your amount, but it can also help you set financial goals for the future. If you know exactly where your amount is going every month, you can easily see where some cutbacks and compromises can be made. The project what we have developed is work more efficient than the other income and expense tracker. The project successfully avoids the manual calculation for avoiding calculating the income and expense per month. The modules are developed with efficient and also in an attractive manner.

2.2 References:

- ❖ https://www.researchgate.net/publication/347972162_Expense_Manager_Application
- ❖ Sankari.A,AlbertMayan.J,"Retrieving call logs and SMS bymessaging services" International Journal of Pharmacy & Technology, Issue No.4 , pp.22951-22958,Dec 2016
- ❖ Anayarkanni B, Albert Mayan J, Aruna J, "Support vector machine for effectiverobust visual.
- ❖ <https://www.irjet.net/archives/V6/i3/IRJET-V6I31110.pdf>.

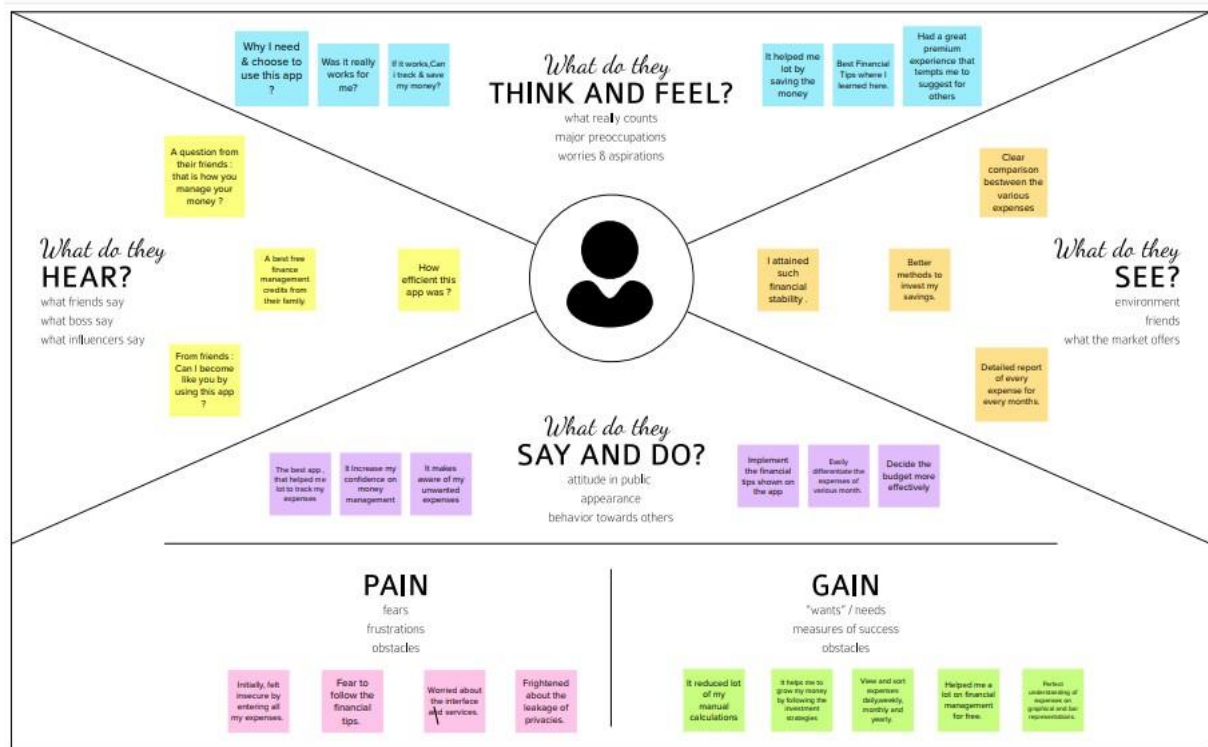
2.3 Problem Statement Definition:

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 2 constant overload to rely on the daily entry of the expenditure and total estimation till the end of the month.

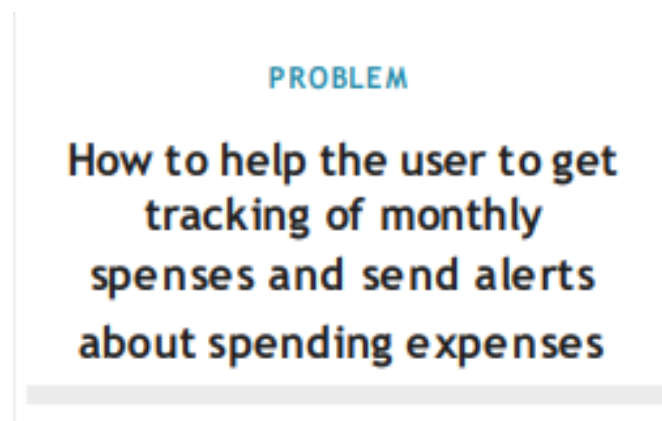
Who does the problem affect?	People getting regular wages.
What is the issue?	The paper based expense tracker system does not provide the user portability, existing system only used on paper based records so unable to update anywhere expenses done and unable to update the location of the expense details disruptive that the proposed system.
When does the issue occurs?	When the digits could not be recognized correctly. When the transactions are not successful. When the elder people unable to understand the smaller handwritten digits. When the paper based expense tracker records are subjected to fire accident, flood, etc.
Where is the issue occurring?	The issue occurs when the person is unable to track his income and expenditure.
Why is it important that we fix the problem?	By solving this issue those people getting regular wages can track their expenses and avoid unwanted expenses.

3. IDEATION & PROPOSED SOLUTION:

3.1 Empathy Map Canvas:



3.2 Ideation & Brainstorming:





Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes



TIP

You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

Rajesh M S

To user to enter the spending

Limitations for budget

Edit income and expenses

Keep accurate records

Add income and expenses

Add remainder and get notify

Velan M

Set smart budget to help you not over spend money in a choosen catagory

Create a additional steam of income

Get monthly report as pdf or excel sheet

Generate Monthly report

Filter the expenses periodically

Helps you to stick on your budget and cut out impulse spending

Chandhru P

Navigate to dash board

Edit user profile

Set Budget

Visualize the expense

Show cash flow

Generate monthly record

Rajesh Kumar M

To remind user to enter the spendings

Add multiple stream of income

Categorize the expenses

Feedback System

Overspending / underspending of money

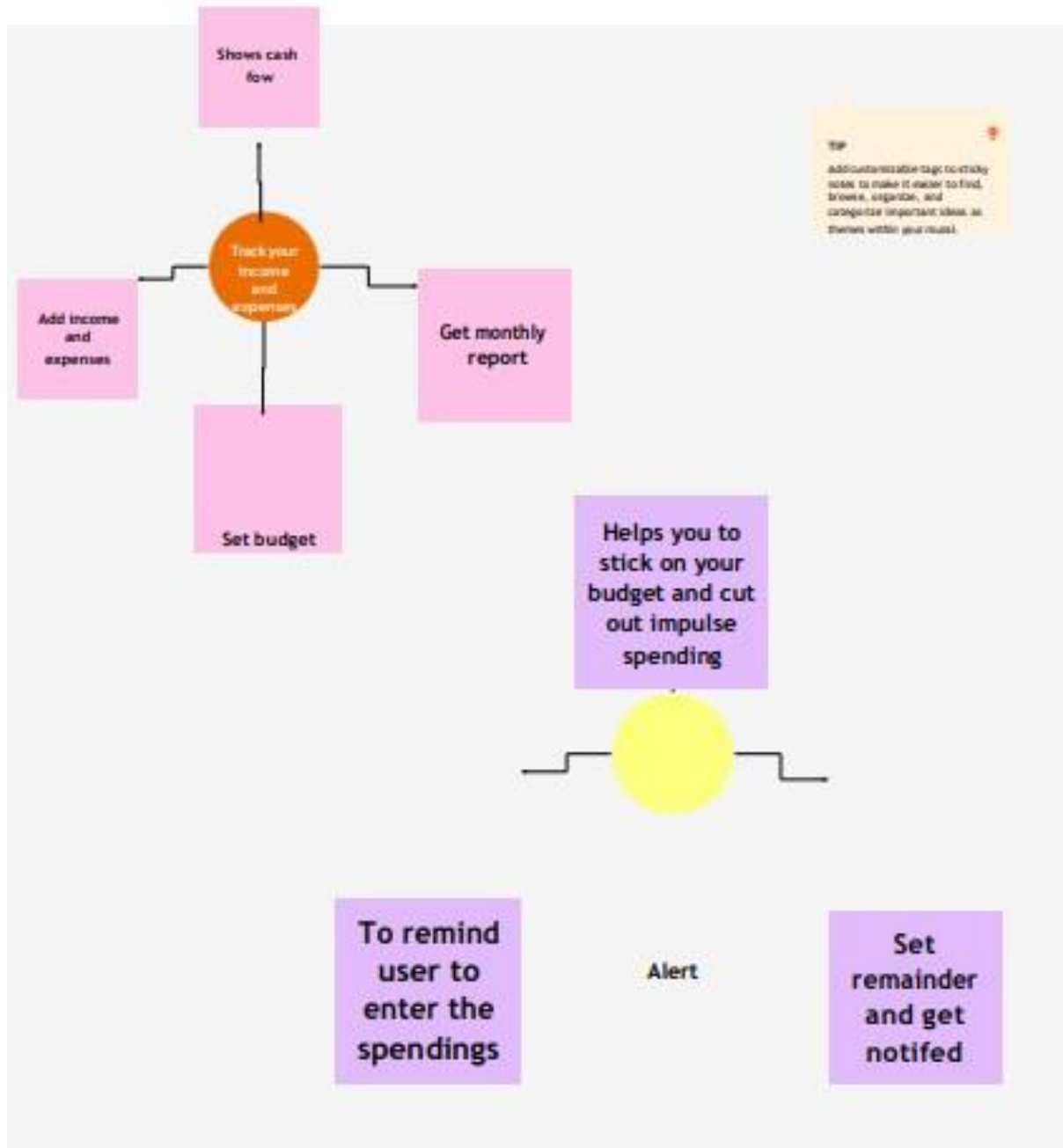
No need for complicated Excel sheets



Group Ideas

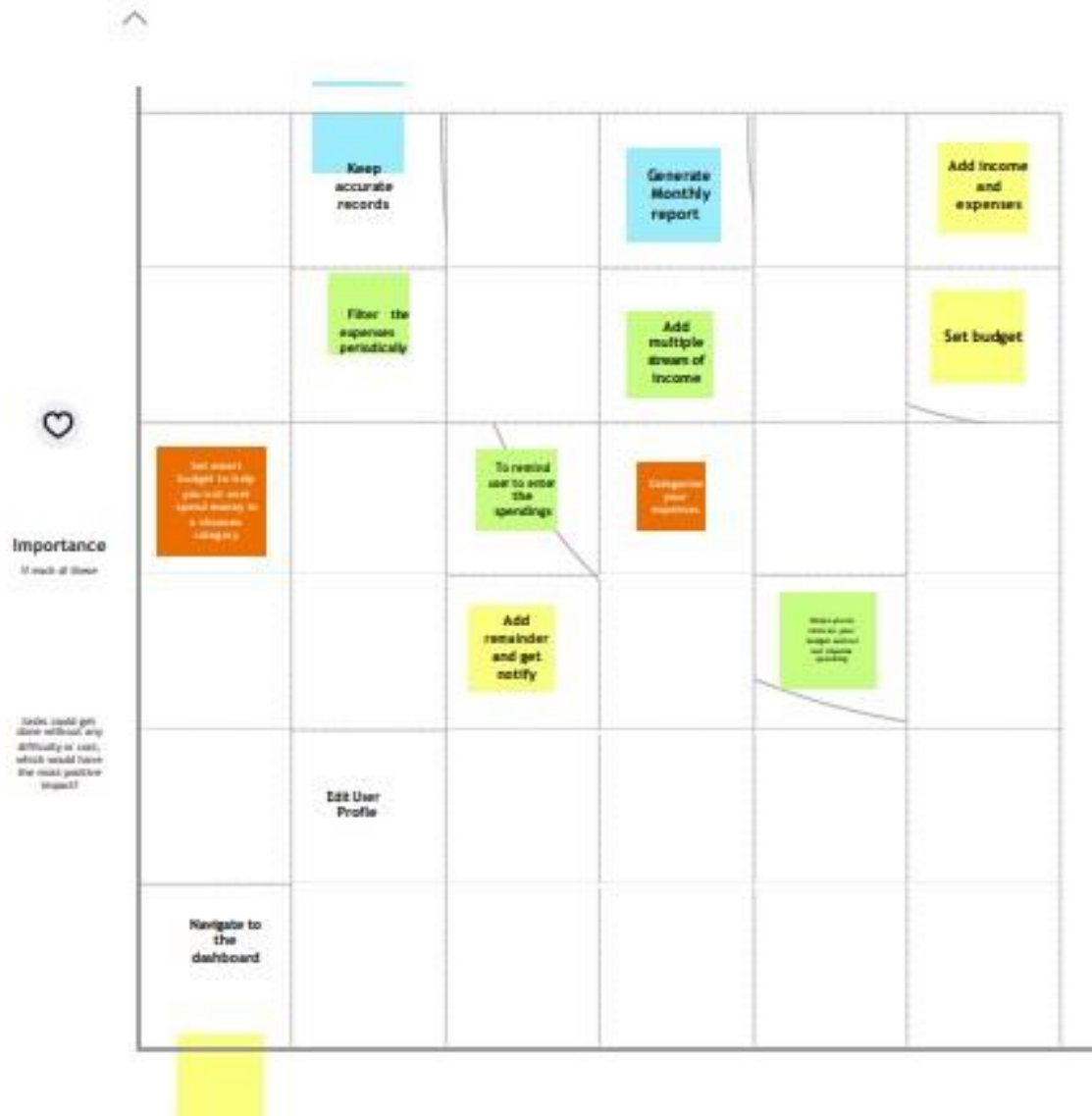
Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes



Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

10 minutes



3.3 Proposed Solution:

S.No	Parameter	Description
1	Problem Statement(Problem to be solved)	Individuals finding difficulty in managing their expenses and unknowingly they were spending their whole budget.
2	Idea / Solution description	This application make user know about their expenses by keeping track of them and make them alert by exceeding them
3	Novelty / Uniqueness	JOINT ACCOUNT: Group expenses like family couple or business can also be tracked. This make data better visualization
4	Social Impact / Customer Satisfaction	This application help people track expenses and alert themselves from extra spendings their easily manage their financial decision on their spendings and savings.
5	Business Model (Revenue Model)	SUBSCRIPTION: Depends on duration (per month/year) Depend on account chosen price varies
6	Scalability of the Solution	This application designed in such a way that any organization can use it for managing their own financial issues.

3.4 Problem Solution Fit:

Define CS, fit into CL	1. CUSTOMER SEGMENT(S) CS Individuals who want to track their expenses (Working professionals, Students, etc.)	6. CUSTOMER LIMITATIONS CL <small>EG. BUDGET, DEVICES</small> <ul style="list-style-type: none"> • Device with internet connection • Subscription payment 	5. AVAILABLE SOLUTIONS AS <small>PROS & CONS</small> <ul style="list-style-type: none"> • Goodbudget - free but manual entry of transactions • Mint - free & wrong categorization • Spendee - many kind of integration but paid 	Explore AS, differentiate
Focus on PP, lap into BE, understand RC	2. PROBLEMS / PAINS PR <small>+ ITS FREQUENCY</small> <ul style="list-style-type: none"> • People want to track their expenses everyday and • Some people also want to track it especially on some occasions 	9. PROBLEM ROOT / CAUSE RC <ul style="list-style-type: none"> • Its hard for the people to manage their financial expenses by keep tracking manually. • This makes them to exceed the actual budget that they made. 	7. BEHAVIOR BE <small>+ ITS INTENSITY</small> <ul style="list-style-type: none"> • People tend to avoid tracking the spendings and worry when they come to know about it. • People who try to do it manually will end up leaving some spendings. 	Focus on PP, lap into BE, understand RC
Identify strong TR & EM	3. TRIGGERS TO ACT TR <ul style="list-style-type: none"> • People are not aware about the existing solutions especially in India. • Providing a visualization about how they spend makes the people to decide easily. • Free for sometime and show the results.(retain & premium users) 4. EMOTIONS EM <small>BEFORE / AFTER</small> <ul style="list-style-type: none"> • People are worried when the exceed the actual budget and not for saving it. • People will be able to track their expenses and bad situations related to financial management. 	10. YOUR SOLUTION SL <ul style="list-style-type: none"> • Build an application to track their expenses seamlessly. • Allow users to access it for free and make them realize how useful to save money. 	8. CHANNELS of BEHAVIOR CH ONLINE <ul style="list-style-type: none"> • Social media advertisements (especially LinkedIn as the users are more of working professionals and students) • Lifestyle influencers would be a great choice OFFLINE <ul style="list-style-type: none"> • Word of mouth 	Extract online & offline CH of BE

4. REQUIREMENT ANALYSIS:

4.1 Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Using Username and Password. Verifying through OTP or E-mail.
FR-4	User Balance Initialization	Allows user to enter through App's UI
FR-5	Add Bills	Allow users to add bills through Apps's UI and store inDatabase.
FR-6	Add an Expense	Get list of expenses for calculation
FR-7	Update an expense	Allow users to edit the expenses.
FR-8	Delete an expense	Allows users to delete if they don't want as well as inthe database.
FR-9	Track expense	Can Track expenses to reduce expenditure.
FR-10	Add a Periodic Expense	Allow to add periodic expenses
FR-11	Add a delayed Expense	Allow to add delayed expenses.
FR-12	Monthly expenditure Limit	Users can set a limit and act accordingly.So an alert willbe sent if the amount exceeds the limit.
FR-13	Get pie-chart	Can get a pie-chart about the overall expenses.

4.2 Non-Functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Provides an eye catching UI that is easy to use and provides vibrant colored icons.
NFR-2	Security	Provide more security by keeping and storing users data with two step authentication.
NFR-3	Reliability	All Transactions and actions are independent and follow the ACID properties.
NFR-4	Performance	Retrieval of information will be fast and provide more security.
NFR-5	Availability	Applications will be available for users 24/7, if provided internet access.
NFR-6	Scalability	As this is a Cloud Based application, CPU time is on demand.

5.PROJECT DESIGN:

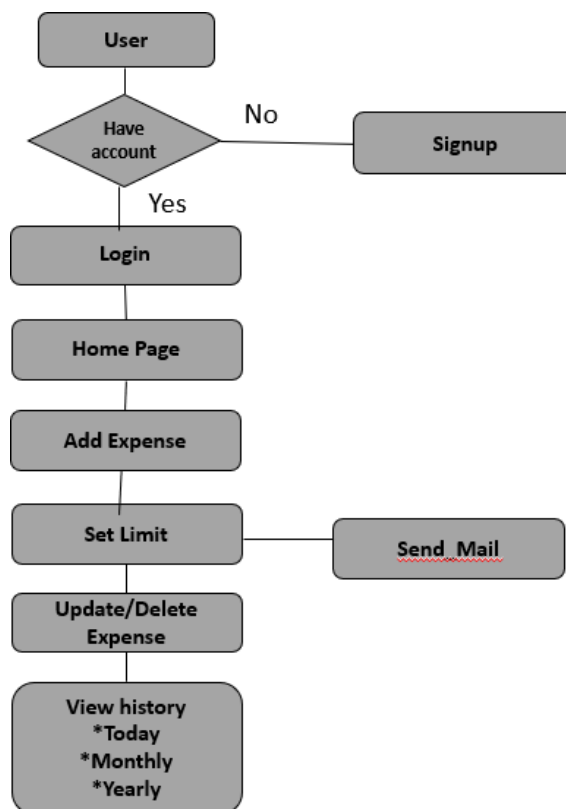
5.1 Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system.

A neat and clear DFD can depict the right amount of the system requirement graphically.

It shows how data enters and leaves the system, what changes the information, and where data is stored.

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



5.2 Solution & Technical Architecture:

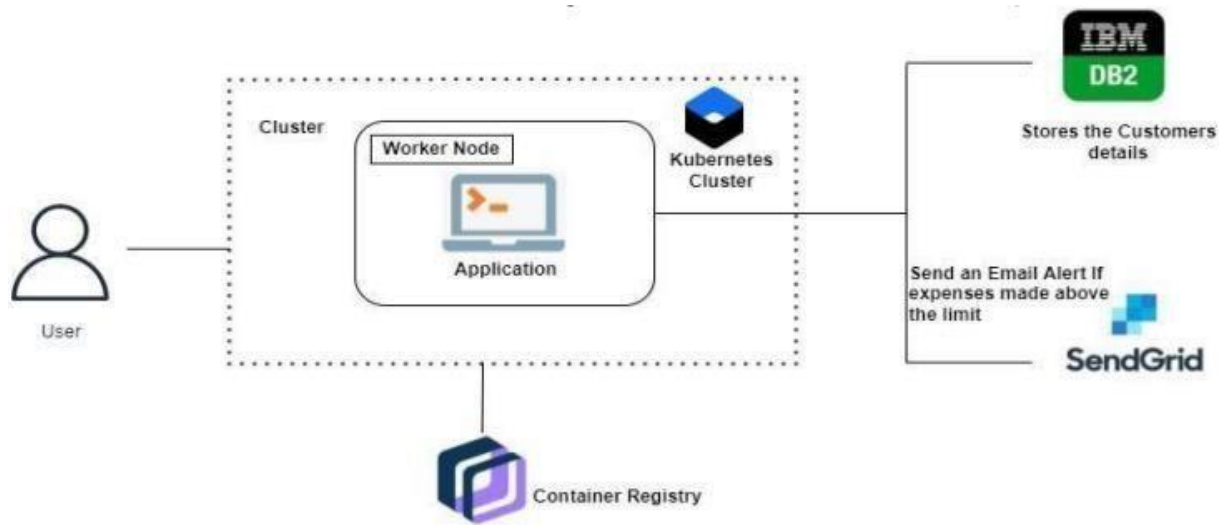


Table-1: Components & Technologies

S.No	Component	Description	Technology
1.	User Interface	The user can Interact with the application with use of Chatbot	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	The application contains the sign in/sign up where the user will login into the main dashboard	Java / Python
	Application Logic-2	Dashboard contains the fields like Add income, Add Expenses, Save money	IBM Watson STT service
	Application Logic-3	The user will get the expense report in the graph form and also get alerts if the expense limit exceeds.	IBM Watson Assistant, SendGrid
3.	Database	The Income and Expense data are stored in the MySQL database	MySQL, NoSQL, etc

4.	Cloud Database	With use of Database Service on Cloud, the User data are stored in a well secured Manner	IBM DB2, IBM Cloudant etc
5.	File Storage	IBM Block Storage used to store the Financial data of the user	IBM Block Storage / Other Storage Service or Local File system
6.	Infrastructure (Server / Cloud)	Application Deployment on Cloud Local Server Configuration	Local and Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask Framework in Python is used to implement this Application	Python-Flask
2.	Security Implementation	This application provides high security to the user Financial data. It can be done by using the Container Registry in IBM cloud.	Container Registry, Kubernetes Cluster
3.	Scalable Architecture	Expense Tracker is a life time access supplication. It's demand will increase when the user's income are high updated.	Container Registry, Kubernetes Cluster
4.	Availability	This application will be available to the user at any part of time	Container Registry, Kubernetes Cluster
5.	Performance	The performance will be high because there will be no network traffics in the application	Kubernetes Cluster

5.3 User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement(Epic)	User Story Number	User Story/ Task	Acceptance criteria	Priority	Release
Customer	Registration	USN-1	As a user, I can register for the application by entering my email,password	I can access my account / dashboard	High	Sprint
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint
	Login	USN-3	As a user, I can log into the application by entering email & password	I can access the application	High	Sprint
	Dashboard (Budget Setting)	USN-4	As a user ,I can enter my income and expenditure details (Set Budget).	I can view my daily expenses	High	Sprint
	Category Selection (Manual, Bank)	USN-5	As a user, I can use Manual method where it has Barcode and Voice Recognition techniques and also I can go with Bank method	I can select according to my convenience	High	Sprint
Customer Care Executive		USN-6	As a customer care executive I can solve the log in issues and other issues of the application	I can provide support or solution at any time 24*7	Medium	Sprint
Administrator	Application	USN-7	As a administrator I can upgrade or update the application	I can fix the bug which arises for the customers and users of the application	Medium	Sprint

6. Project Planning and Scheduling:

Project Tracker, Velocity & Burn down Chart

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint EndDate (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	26 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Nov 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

Sprint Delivery Schedule:

Velocity We have a 6-day sprint duration, and the velocity of the team is 20 (points per sprint). Calculating the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \text{sprint duration/velocity} = 20/6 = 3.33$$

7. Coding and Solution(Explain the features added in the project along with code)





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Full Name

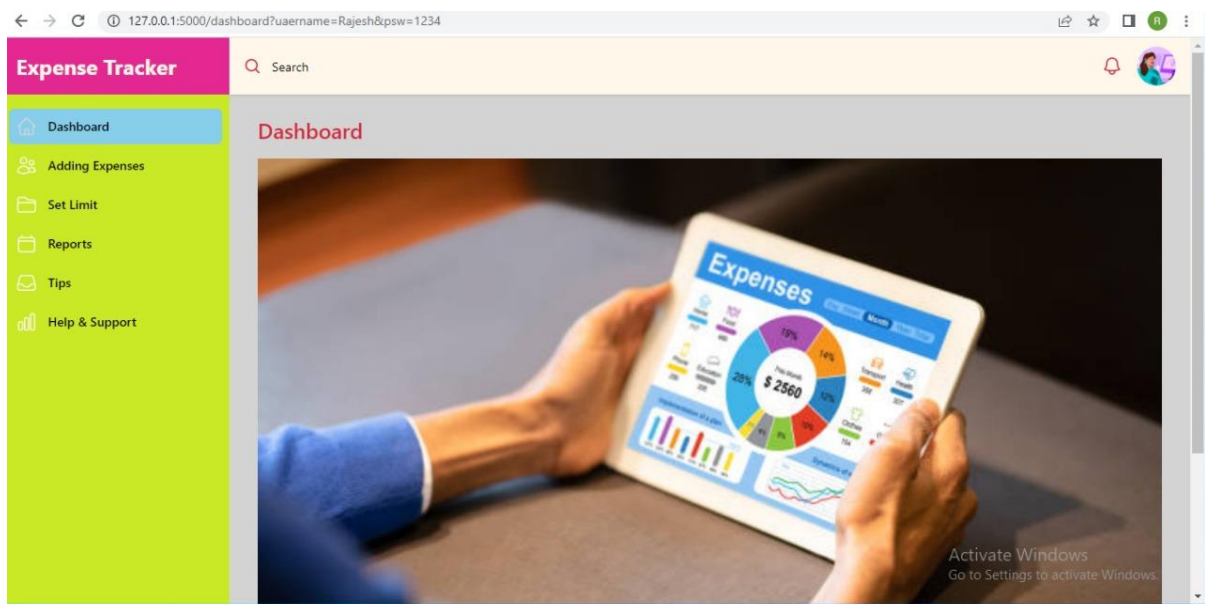
Email

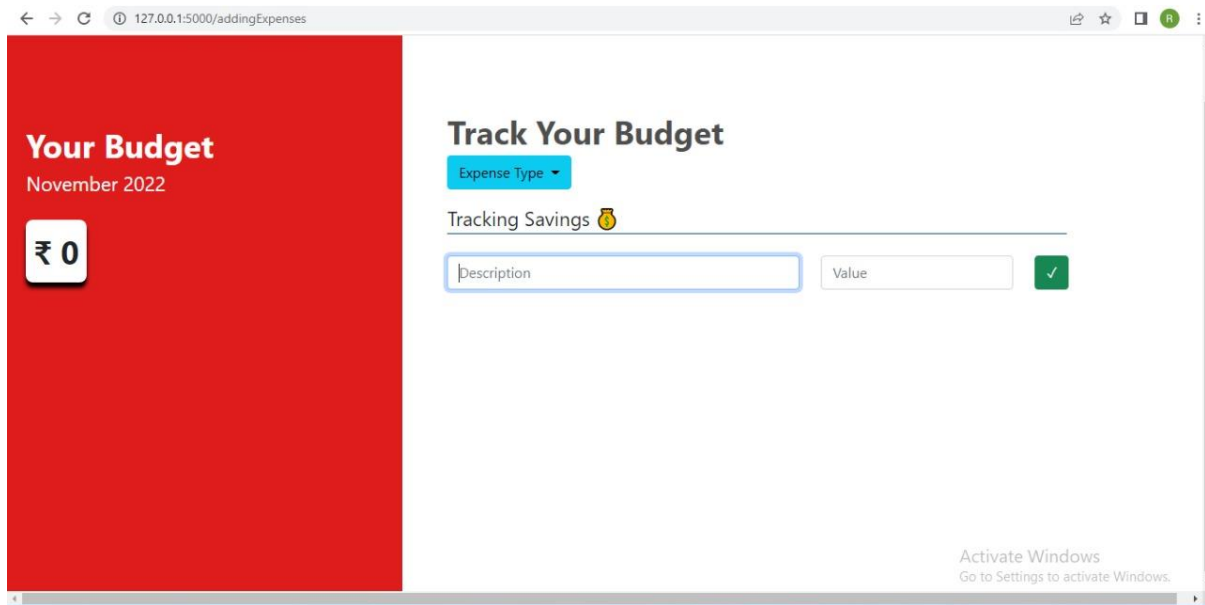
Username

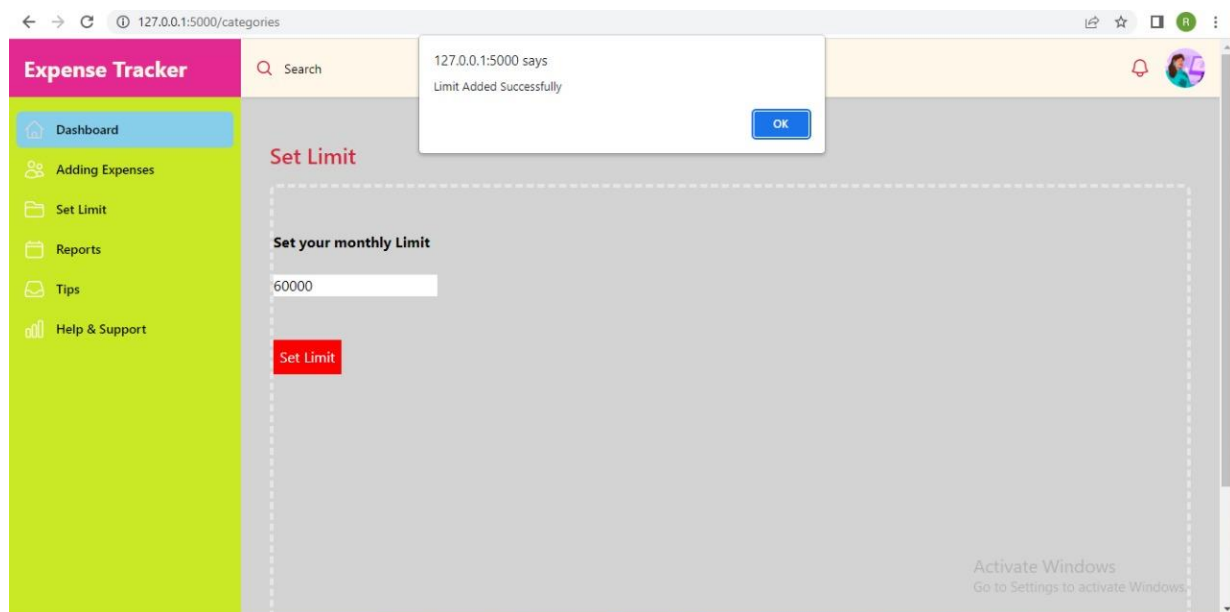
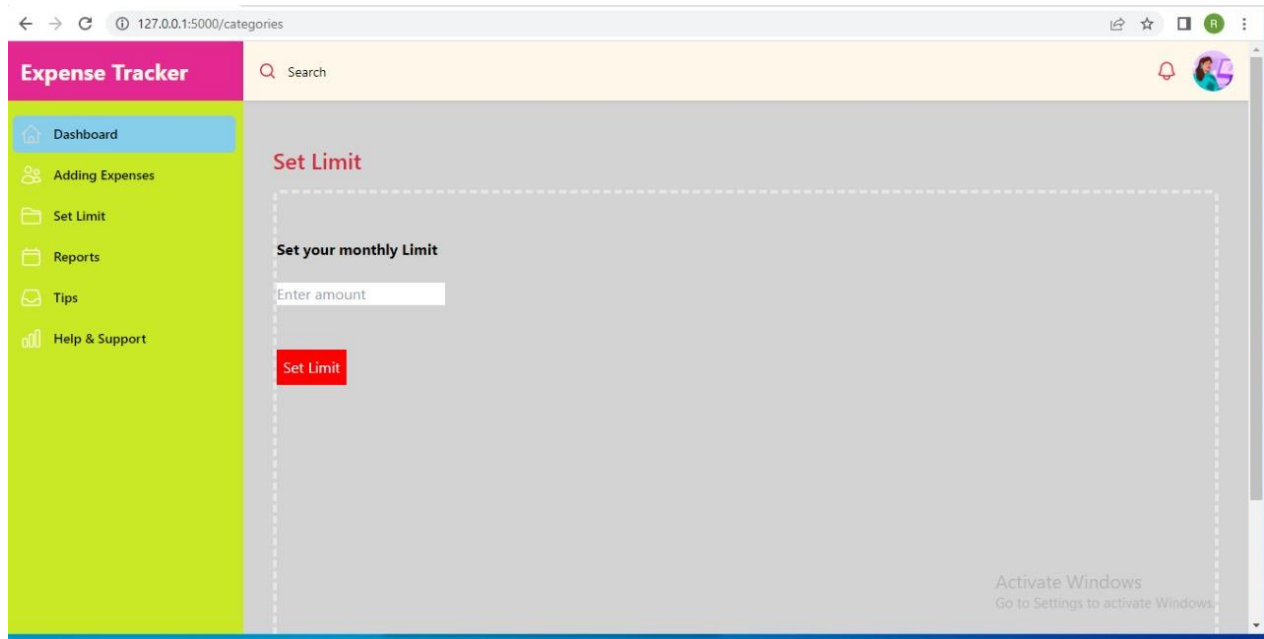
Password

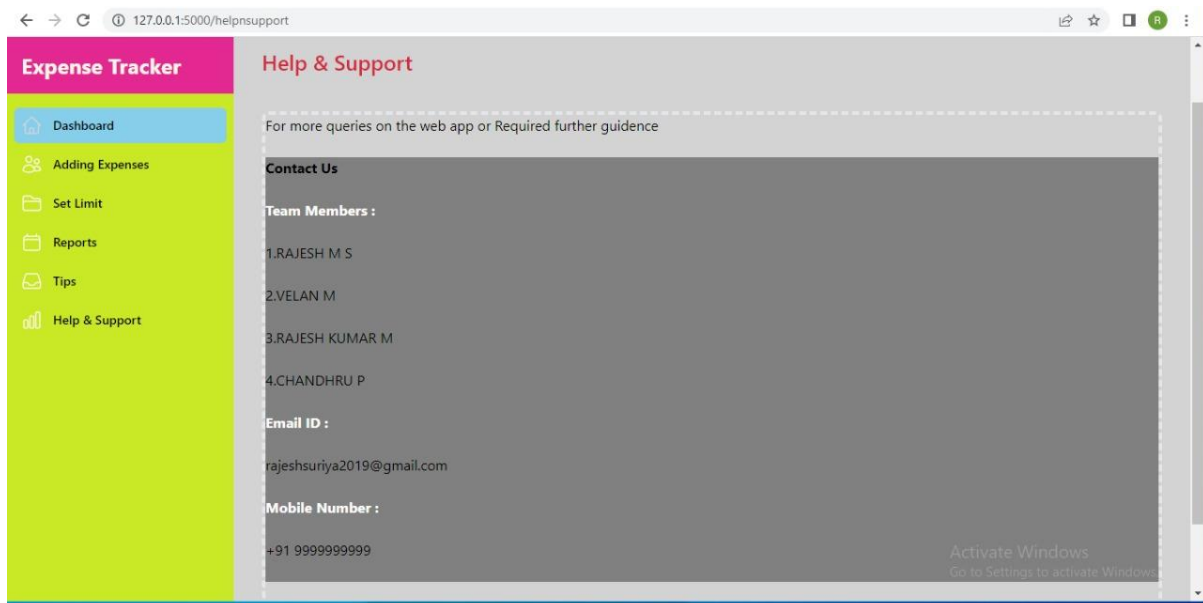
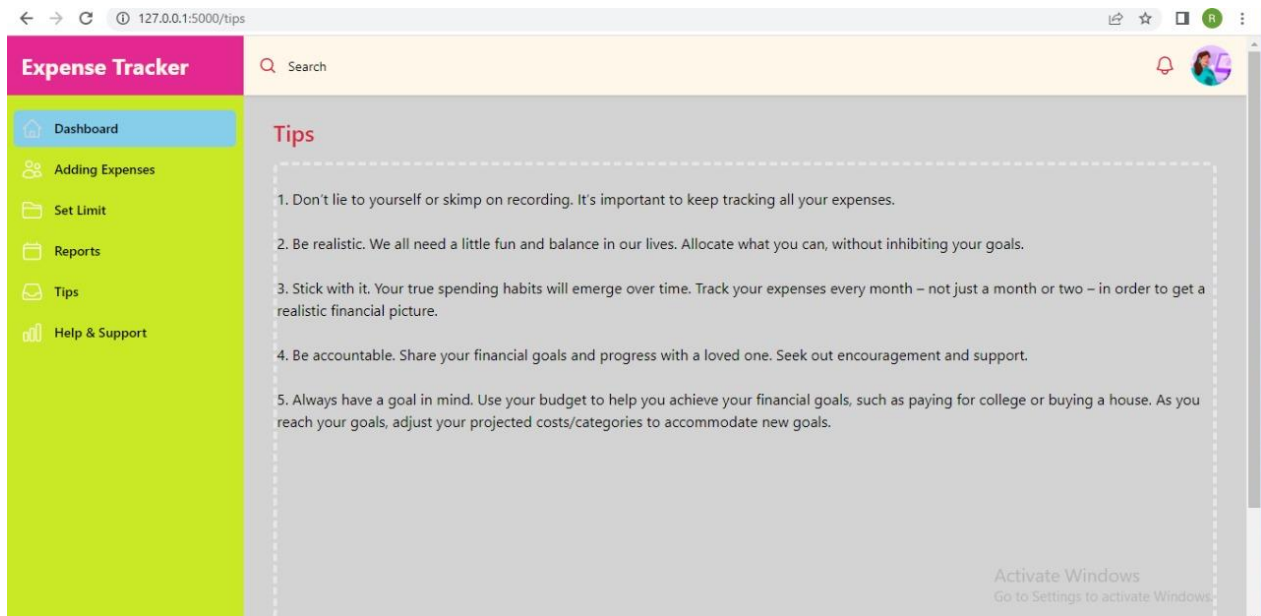
Repeat Password

or









7.2 DATABASE SCHEMA :

Tables:

REGISTER:

id INT NOT NULL GENERATED ALWAYS AS IDENTITY,
username VARCHAR(255) NOT NULL,
email VARCHAR(255) NOT NULL,
password VARCHAR(255) NOT NULL

EXPENSES:

id INT NOT NULL GENERATED ALWAYS AS IDENTITY,
userid INT NOT NULL,
date TIMESTAMP NOT NULL,
expensename VARCHAR(255) NOT NULL,

amount INT NOT NULL,

paymode VARCHAR(255) NOT NULL,category

VARCHAR(255) NOT NUL

LIMITS:

id INT NOT NULL GENERATED ALWAYS AS IDENTITY,userid
VARCHAR(255) NOT NULL,
limitss VARCHAR(255) NOT NULL

8.TESTING:

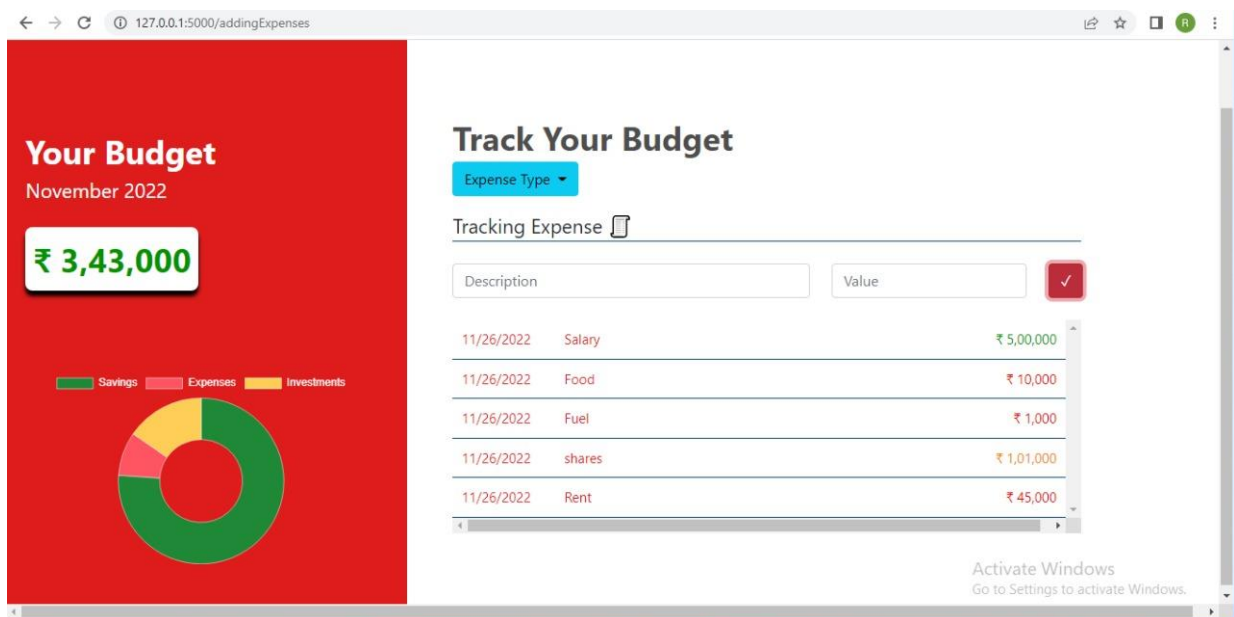
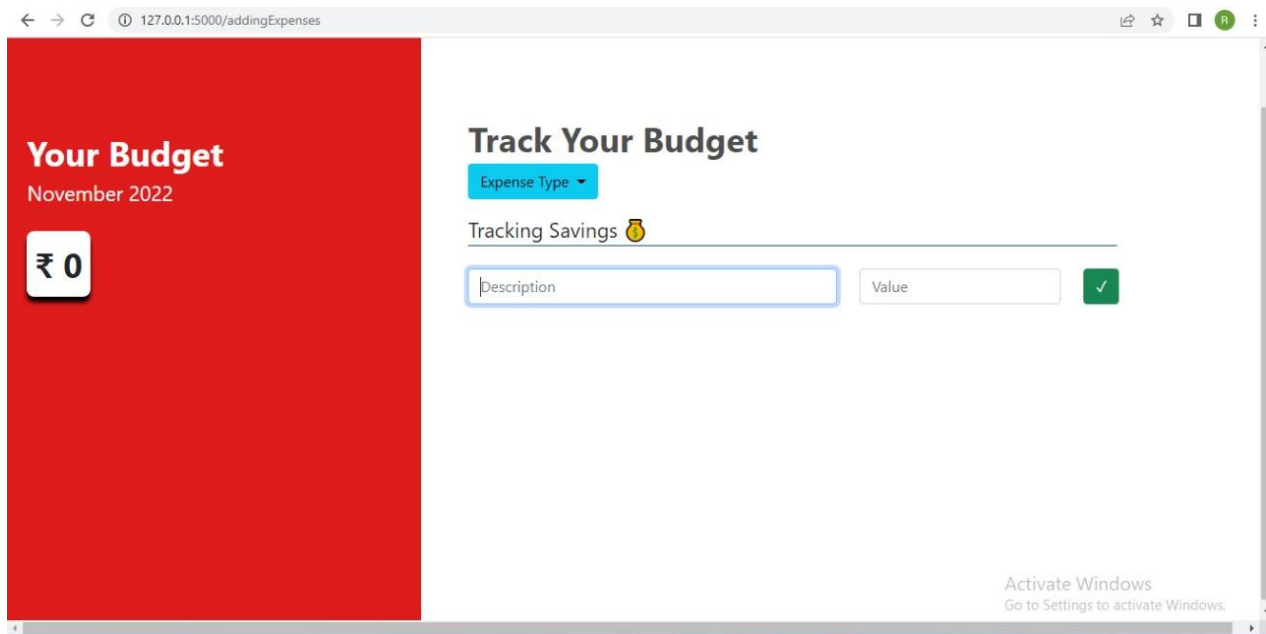
8.1 TEST CASES:

TEST CASE ID	PURPOSE	TEST CASES	RESULT
TC1	Authentication	Password with length less than 4 characters	Password cannot be less than 4 characters
TC2	Authentication	User name with length less than 2 characters	User name cannot be less than 2 characters
TC3	Authentication	Valid user name with minimum 2 characters	User name accepted
TC4	Authentication	User name left blank	User name cannot be less than 2 characters
TC5	Authentication	Password field left blank	Password cannot be empty
TC6	Authentication	Minimum 4 characters valid password	Password accepted
TC7	Authentication	Password and Confirm Password did not match	Please enter same password
TC8	Authentication	Confirm Password field left blank	Please enter same password

8.2 USER ACCEPTANCE TESTING:

Technical Requirement Document (TSD)	
Test Case ID	Test Case Description
TC_001	Verify if user is able to order single product.
TC_002	Verify if user is able to order multiple products.
TC_003	Verify if user can apply single or multiple filters
TC_004	Verify if user can apply different sort by
TC_005	Verify if user is able to pay by Master Card
TC_006	Verify if user is able to pay by Debit Card
TC_007	Verify if user is able to pay fully by reward points
TC_008	Verify if user is able to pay partially by reward points

9.Results:



9.1 PERFORMANCE METRICS:

- **Tracking income and expenses:** Monitoring the income and tracking all expenditures(through bank accounts, mobile wallets, and credit & debit cards).
- **Transaction Receipts:** Capture and organize your payment receipts to keep track of your expenditure.
- **Organizing Taxes:** Import your documents to the expense tracking app, and it will streamline your income and expenses under the appropriate tax categories.
- **Payments & Invoices:** Accept and pay from credit cards, debit cards, net banking, mobile wallets, and bank transfers, and track the status of your invoices and bills in the mobile app itself. Also, the tracking app sends reminders for payments and automatically matches the payments with invoices.
- **Reports:** The expense tracking app generates and sends reports to give a detailed insight about profits, losses, budgets, income, balance sheets, etc.,
- **E-commerce integration:** Integrate your expense tracking app with your eCommerce store and track your sales through payments received via multiple payment methods.
- **Vendors and Contractors:** Manage and track all the payments to the vendors and contractors added to the mobile app.
- **Access control:** Increase your team productivity by providing access control to particular users through custom permissions.
- **Track Projects:** Determine project profitability by tracking labor costs, payroll, expenses, etc., of your ongoing project.
- **Inventory tracking:** An expense tracking app can do it all. Right from tracking products or the cost of goods, sending alert notifications when the product is running out of stock or the product is not selling, to purchase orders.
- **In-depth insights and analytics:** Provides in-built tools to generate reports with easy-to-understand visuals and graphics to gain insights about the performance of your business.
- **Recurrent Expenses:** Rely on your budgeting app to track, streamline, and automate all the recurrent expenses and remind you on a timely basis

10. Advantages and Disadvantages:

Advantages:

- Easy Money management.
- Reduce paper works.
- Limitations in spending.
- Manage unwanted spendings.
- Well suitable for large organizations.

Disadvantages:

- More dependent on mobile phones.
- Initially difficult to understand for uneducated people.

11. Conclusion:

By using this website one can know how much they spent and have a quality financial tracking, thus managing their expenses could be tracked more easily. Managing and having a correct track of finance is essential in this scenario. But tracking it manually need time and effort, so with the help of such website the calculation will be much more easier also they have clear idea about where they have spent. With this method, they come to know about how much they spent on each activity.

Thus the user get to know their monthly, yearly and daily spendings in a graphical way which give them knowledge about their spendings and how they can minimize those spendings.

12. Future Scope:

The Existing Expense tracker website or application have basic features like adding, updating and deleting income and expenses, setting up limit and showing graphical statistics (piechart, bargraph, etc..) In future, we are planning to add barcode system as well as voice recognition so that the tracking could be more easier.

- The barcode system can be used for scanning the bills which has barcode so that the expense will be displayed.
- The voice recognition can be used as an easier source even for uneducated people to track the expenses so that they can add their expense through speech.

13.Appendix:

Source Code

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <link
      rel="stylesheet"
      href="{ {url_for('static',filename='landingPage.css')} }"
    />
    <title >Expense Tracker Landing Page</title>
  </head>
  <style>
.grd{

}
.contact{
background-color: grey;

}
body{
background-image:url('../static/images/bkg.png');
background-repeat:no-repeat;
background-size: 100%;
background-stretch:100%;
//background-color:lightpink;
}
</style>
  <body>
<br>
<div class="grd">
  { % include 'Navbar.html' % }

  <div class="contents">
    <div class="leftContents">
      <p class="message1">“Money, like emotions, is something you must control to keep your life on the right track.”
<br>
      <h1 style="text-align:right"> — Natasha Munson</h1>
</p>
      <p class="message2">Track all your expenses here...</p>
      <div>
        <a href="/signup" class="getStartedButton">Get Started -></a>
      </div>
    </div>
```

```

<div class="rightContents">
  
</div>

</div>
<div class="contact">
<h2> Contact Us</h2>
<p> <b style="color:white">Team Members :<br><br></b> 1.RAJESH M S <br><br> 2.VELAN M<br> <br>
3.RAJESH KUMAR M<br><br> 4.CHANDHRU P <br><br>
<b style="color:white"> Email ID :<br><br></b> rajeshsuriya2019@gmail.com <br><br>
<b style="color:white"> Mobile Number :<br><br></b> +91 9999999999<br><br>
</p>
</div>
</div>
</body>
</html><!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <link
    rel="stylesheet"
    href="{ { url_for('static',filename='landingPage.css') } }"
  />
  <title >Expense Tracker Landing Page</title>
</head>
<style>
.grd{

}
.contact{
background-color: grey;

}
body{
background-image:url('../static/images/bkg.png');
background-repeat:no-repeat;
background-size: 100%;
background-stretch:100%;
//background-color:lightpink;
}
</style>
<body>
<br>

```

```

<div class="grd">
  { % include 'Navbar.html' % }

  <div class="contents">
    <div class="leftContents">
      <p class="message1">“Money, like emotions, is something you must control to keep your life on the right track.”
    <br>
      <h1 style="text-align:right"> — Natasha Munson</h1>
    </p>
    <p class="message2">Track all your expenses here...</p>
    <div>
      <a href="/signup" class="getStartedButton">Get Started -></a>
    </div>
    <div class="rightContents">
      
    </div>

  </div>
<div class="contact">
<h2> Contact Us</h2>
<p> <b style="color:white">Team Members :<br><br></b> 1.RAJESH M S <br><br> 2.VELAN M<br> <br> 3.RAJESH KUMAR M<br><br> 4.CHANDHRU P <br><br>
<b style="color:white"> Email ID :<br><br></b> rajeshsuriya2019@gmail.com <br><br>
<b style="color:white"> Mobile Number :<br><br></b> +91 9999999999<br><br>
</p>
</div>
</div>
</body>
</html>

```

Login.html

```

<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <link
      rel="stylesheet"

```

```

    href="{ {url_for('static',filename='signIn.css')} }"
  />
<style>
.inner{
background-color:white;
}
.back{
background-color:#aef6f7;
}
</style>
<title >signIn</title>
</head>
<body>
<div class="back">
    { % include 'Navbar.html' % }
<br>
<br>
    <h1 style="text-align:center">Sign In Page</h1>

    <div class="signin" style="border:1px solid rgb(30, 28, 28)">
<div class="inner">
    <form action="/dashboard">
        <label for="username"><b>username</b></label>
        <input type="text" placeholder="Enter username" name="username" required class="name"></br></br>
        <label for="psw"><b>Password</b></label>
        <input type="password" placeholder="Enter Password" name="psw" required class="psw"></br></br>
        <a href="/dashboard" target="_blank"><button type="submit" class="signinbtn">Sign in</button></a>
    </form>
    <p class="or">or</p>
    <a href="/login" target="_blank"><button class="googlelogin">Signin with google</button></a>
    </div>
</div>
</div>
</div>
</body>
</html>

```

Home.css

```
{
  background-color: #fff7e9;
  margin: 0.4rem;
}
.contents {
  display: flex;
  align-items: center;
}
.leftContents {
  flex: 1 0;
}
.rightContents {
  flex: 1 0;
}
.message1 {
  font-size: 2rem;
  color: #d32840;
  padding-bottom: 1.5rem;
  line-spacing: 1px;
}
.message2 {
  font-size: 1.8rem;
  color: #d32840;
  padding-bottom: 2.5rem;
}
.getStartedButton {
  text-decoration: none;
  font-size: 1.8rem;
  color: #fff7e9;
  background-color: #d32840;
  border: 1px solid #d32840;
  border-radius: 0.5rem;
  padding: 0.3rem 0.8rem;
}
/*
offwhite - #fff7e9
eggyyellow - #ffd481
brightred - #d32840
```

```

darkred - #af3b49
*/
* {

    margin: 0.4rem;
}
body{
}
.signin{
width:30%;
height: 50%;
margin: 3%;
}
.name,.psw,.googlelogin,.signinbtn{
color:green;
border: 2px solid black;
padding: 5%;
position : relative;
display:block;
}
.googlelogin,.signinbtn{
margin-left: 25%;
}
.or{
padding-left: 35%;
}
{
background-color: grey;
margin: 0.4rem;
}
.active {
border: 4px solid #af3b49;
}
.about{
color:#af3b49;
font-size: larger;
}
{
background-color:
#fff7e9;
margin: 0.4rem;
}

```



```

nav {
  display: right;
  justify-content: space-between;
}
.appName {
  font-size: 2.5rem;
  font-weight: bold;
  // color: #d32840;
  text-decoration: none;
  padding-left: 500px;
}
.landingLink {
  text-decoration: none;
  font-size: 1.8rem;
  font-weight: 500;
  margin: 0rem 1rem;
  padding: 0.3rem 1rem;
  color: #d32840;
}
.landingLink:hover {
  border-bottom: 4px solid #d32840;
}
.active {
  border-bottom: 4px solid #d32840;
}
* {
  margin: 0.4rem;
}
body{

}
.signup{
  width: 30%;
  height: 50%;
  margin: 3%;
}
.cancelbtn,.signupbtn,.name,.email,.psw,.psw-repeat,.username,.google,.login{
  color: green;
  border: 2px solid black;
  padding: 5%;
}

```

```

position : relative;
display: block;
}
.cancelbtn{
margin-left: 30%;
}
.google{
margin-left: 20%;
}
.signupbtn{
margin-left: 28%;
}
.or{
margin-left: 32%;
}
* {
margin: 0;
padding: 0;
box-sizing: border-
box;
}

.clearfix::after {
content: "";
display: table;
clear: both;
}

body {
color: #555;
font-family: Open
Sans;
font-size: 16px;
position: relative;
height: 100vh;
font-weight: 400;
}

.left-container {
height: 100vh;
background-color:

```

```
rgb(222, 28, 28);;
    background-size:
cover;
    background-position:
center;
    position: relative;
}
```

```
.right-container {
    height: 100vh;
    width: 100%;
    position: relative;
}
```

```
.header {
    font-weight: 700;
    font-size: 36px;
}
```

```
.sub-text {
    font-size: 22px;
    font-weight: 400;
}
```

```
.month-container {
    padding-top: 25%;
    padding-left: 5%;
    padding-right: 5%;
}
```

```
.calc-container {
    padding-top: 12%;
    padding-left: 5%;
    padding-right: 5%;
}
```

```
.fs-white {
    color: #ffffff;
}
```

```
.fs-dark-grey {
```

```
    color: #4e4e4e;
}

.budget-container {
    display: inline-block;
    background: #ffffff;
    border-radius: 8px;
    box-shadow: 0 6px 4px
#000000;
}

.month-amount {
    font-size: 36px;
    font-weight: 700;
}

.bottom-border {
    border-bottom: 1px
solid #00446D;
}

.expense-row {
    padding: 10px;
}

.expense-date {
    color: rgb(222, 28,
28);
}

.expense-text {
    color: rgb(222, 28, 28);
}

.expense-list {
    overflow-y: scroll;
}

.fs-15 {
    font-size: 15px;
}
```

```

.expense-value {
    text-align: end;
}

.expense-saving {
    color: #039300;
}

.expense-cost {
    color: #E40000;
}

.expense-investment {
    color: #f48803;
}

#expense-chart {
    margin: 20% 0;
}

.btn-submit-expense {
    border-radius: 50%;
}

.currency-select {
    margin: 0 4%;
}

.selected-currency {
    color: #ffffff;
    font-size: 12px;
    font-weight: 700;
    margin-top: 1%;
}

```

Dashboard.html

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8" />

```

```

<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />
<title>Dashboard</title>
</head>
<body>
  {% include 'skeleton.html' %}

  <div class="flex flex-col md:pl-64">
    <main class="flex-1">
      <div class="py-6">
        <div class="mx-auto max-w-7xl px-4 sm:px-6 md:px-8">
          <h1 class="text-2xl font-semibold text-[#d32840]">Dashboard</h1>
        </div>
        <div class="mx-auto max-w-7xl px-4 sm:px-6 md:px-8">
          <!-- Replace with your content -->
        </div>
      </div>
      <div class="py-4">
        <div>
          
        </div>
      </div>
    </div>
    <!-- /End replace -->
  </div>
</main>
</div>
</body>
</html>

```

Aboutus.html

```

<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <link

```

```

    rel="stylesheet"
    href="{ {url_for('static',filename='aboutUs.css')} }"
  />
  <title>About Us</title>
</head>
<body>
  { % include 'Navbar.html' % }
  <h1>About Us Page</h1>
<div class="about">
<p><pre><i>We four friends developed this expense tracker that will help everyone track their expenses.
Expense Tracker helps you to get your finances into the shape so that you don't need to stress about every
penny that you spend. If you know how much and what on you spend, it is easier to change your financial
habits, if you feel like that's what you need. Having a complete picture of your finances in one place.
make them easier to manage.</i></pre></p>
<p><pre><i>This app allows you to input your income and expenses and gives analytics and insights in the
form of
graphs and bars which help you to track your expenses. It also provides various functionalites such as
creation of budget, gives alert of the upcoming transactions, Information about discounts and various
other functions that helps you to save money</i></pre></p>
</div>
</body>
</html>

```

AddingExpenses.html

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Expense Manager</title>
  <!-- Icon Bar link-->
  <link rel = "icon" href = "image/wallet2.svg" type = "image/x-icon">

  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css"
    integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"
    crossorigin="anonymous">
  <link
    rel="stylesheet"
    href="{ {url_for('static',filename='style.css')} }"
  />
  <link href="https://fonts.googleapis.com/css2?family=Open+Sans:wght@400;700&display=swap" rel="stylesheet">

```

```

<link href="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.3/Chart.css" rel="stylesheet">
<script src="https://code.jquery.com/jquery-3.2.1.slim.min.js"
  integrity="sha384-KJ3o2DKtIkvYIK3UENzmM7KCKRr/rE9/Qpg6aAZGJwFDMVNA/GpGFF93hXpG5KkN"
  crossorigin="anonymous"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"
  integrity="sha384-ApNbgh9B+Y1QKtv3Rn7W3mgPxhU9K/ScQsAP7hUibX39j7fakFPskvXusvfa0b4Q"
  crossorigin="anonymous"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"
  integrity="sha384-JZR6Spejh4U02d8jOt6vLEHfe/JQGiRRSQQxSfFWpi1MquVdAyjUar5+76PVCmYI"
  crossorigin="anonymous"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.3/Chart.js" crossorigin="anonymous"></script>

<!-- Bootstrap CSS -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta1/dist/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-giJF6kkoqNQ00vy+HMDP7azOuL0xtbfIcaT9wjKHr8RbDVddVHYTfAAsrekwKmp1"
crossorigin="anonymous">

<!-- PDF -->
<script src="html2pdf.bundle.min.js"></script>
<script>
function generatePDF() {
  // Choose the element that our invoice is rendered in.
  const element = document.getElementById("invoice");
  // Choose the element and save the PDF for our user.
  html2pdf()
    .from(element)
    .save();
}
</script>

</head>
<body>
<!-- NAV BAR -->
<nav class="navbar navbar-expand-lg navbar-dark bg-primary">
  <div class="container-fluid">
    <a class="navbar-brand active" href="#">Adding Expenses</a>
    <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarSupportedContent"
aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarSupportedContent">

```



```

</div>

</div>
</nav>
<!--      GEnerating PDF File      -->
<div id="invoice">
  <!--      Container For Showing EXPENSE ANF Income      -->
<div class="row">
  <div class="col-4 left-container">
    <div class="month-container">
      <div class="header fs-white">Your Budget</div>
      <div id="current-month" class="sub-text fs-white"></div>
      <div class="budget-container p-2 mt-4">
        <span id="month-budget" class="month-amount">₹ 0</span>
      </div>
    </div>
  </div>

  <div class="chart-container">
    <canvas id="expense-chart"></canvas>
  </div>
</div>

<div class="col-7 right-container">
  <div class="calc-container">
    <div class="header fs-dark-grey">Track Your Budget</div>
    <div class="dropdown open">
      <button class="btn btn-info dropdown-toggle"
        type="button" id="dropdownMenu3" data-toggle="dropdown"
        aria-haspopup="true" aria-expanded="false">
        Expense Type
      </button>
      <div class="dropdown-menu">
        <a class="dropdown-item" id="type-savings">Savings</a>
        <a class="dropdown-item" id="type-expense">Expense</a>
        <a class="dropdown-item" id="type-investment">Investment</a>
      </div>
    </div>
    <div class="mt-3 tracking-text text-capitalize sub-text bottom-border">Tracking Savings ₹ </div>

  <div class="row mt-4">
    <div class="col-7">

```

```

        <input class="form-control input-expense-description" type="text" placeholder="Description">
    </div>
    <div class="col-4">
        <input class="form-control input-expense-value" type="number" placeholder="Value">
    </div>
    <div class="col-1">
        <button type="button" class="btn btn-success btn-submit-expense">&check;</button>
    </div>
</div>
<div class="expense-list mt-4">

</div>

</div>
</div>
</div>
<!--      Closing div for      PDF      -->
</div>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta1/dist/js/bootstrap.bundle.min.js" integrity="sha384-
ygbV9kiqUc6oa4msXn9868pTtWMgiQaeYH7/t7LECLbyPA2x65Kgf80OJFdroafW" crossorigin="anonymous"></script>

<script>
let ExpenseController = (() => {
    let total = 0, savings = 0, expenses = 0, investments = 0;

return {
    inputEntry(userInput) {
        if (userInput['expenseType'] === 'savings') {
            savings += userInput['value'];
            total += userInput['value'];
        }
        if (userInput['expenseType'] === 'investment') {
            investments += userInput['value'];
            total -= userInput['value'];
        }
        if (userInput['expenseType'] === 'expense') {
            expenses += userInput['value'];
            total -= userInput['value'];
        }
    },

```

```

    getSavingsData() {
        return savings;
    },

    getExpensesData() {
        return expenses;
    },

    getInvestmentData() {
        return investments;
    },

    getTotalData() {
        return total;
    }
}

})());

let UIController = () => {
    let expenseType = 'savings';

    let HTMLStrings = {
        inExpenseDescription: '.input-expense-description',
        inExpenseValue: '.input-expense-value',
        btnSubmitExpense: '.btn-submit-expense',
        expenseList: '.expense-list',
        currentMonth: '#current-month',

typeExpense: '#type-expense',
        typeSavings: '#type-savings',
        typeInvestment: '#type-investment',
        trackingText: '.tracking-text',
        expenseChart: '#expense-chart',
        monthBudget: '#month-budget'
    };

    return {
        numberFormat(number) {
            return Intl.NumberFormat('en-IN').format(number);

```

```

},
showCurrentMonth() {
    let now, month, year, months;

    now = new Date();
    month = now.getMonth();
    year = now.getFullYear();
    months = [
        'January', 'February', 'March', 'April', 'May', 'June', 'July', 'August', 'September', 'October',
        'November', 'December'
    ];
    document.querySelector(HTMLStrings.currentMonth).textContent = months[month] + " " + year;
},

getHTMLStrings() {
    return HTMLStrings;
},

setExpenseType(type) {
    console.log('here', type);
    this.expenseType = type;
    let emoji = "💰";
    if (type === 'savings') {
        emoji = "💰";
        if (document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-warning')) {
            document.querySelector(HTMLStrings.btnSubmitExpense).classList.remove('btn-warning');
        }
        if (document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-danger')) {
            document.querySelector(HTMLStrings.btnSubmitExpense).classList.remove('btn-danger');
        }
        if (!document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-success')) {
            document.querySelector(HTMLStrings.btnSubmitExpense).classList.add('btn-success');
        }
    }
}

if (type === 'expense') {
    emoji = "📦";
    if (document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-warning')) {
        document.querySelector(HTMLStrings.btnSubmitExpense).classList.remove('btn-warning');
    }
}

```

```

    if (document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-success')) {
        document.querySelector(HTMLStrings.btnSubmitExpense).classList.remove('btn-success');
    }
    if (!document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-danger')) {
        document.querySelector(HTMLStrings.btnSubmitExpense).classList.add('btn-danger');
    }
}
if (type === 'investment') {
    emoji = "🏠";
    if (document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-danger')) {
        document.querySelector(HTMLStrings.btnSubmitExpense).classList.remove('btn-danger');
    }
    if (document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-success')) {
        document.querySelector(HTMLStrings.btnSubmitExpense).classList.remove('btn-success');
    }
    if (!document.querySelector(HTMLStrings.btnSubmitExpense).classList.contains('btn-warning')) {
        document.querySelector(HTMLStrings.btnSubmitExpense).classList.add('btn-warning');
    }
}

document.querySelector(HTMLStrings.trackingText).textContent = "Tracking " + type + " " + emoji;

},

getUserExpenseInput() {
    return {
        description: document.querySelector(HTMLStrings.inExpenseDescription).value,
        value: parseInt(document.querySelector(HTMLStrings.inExpenseValue).value),
        date: new Date().toLocaleDateString(),
        expenseType: this.expenseType ? this.expenseType : 'savings'
    }
},

addListItem (inputObj) {
    let html, element;
    element = HTMLStrings.expenseList;

    if (inputObj['expenseType'] === 'savings') {
        html = '<div class="bottom-border"> <div class="row expense-row"><div class="col-2 expense-date fs-15">' +
        inputObj['date'] + ' </div><div class="col-8 expense-text fs-15"> ' + inputObj['description'] + ' </div><div class="col-2

```

```

expense-value expense-saving fs-15"> ₹ ' + this.numberFormat(inputObj['value']) + ' </div></div>'
    } else if (inputObj['expenseType'] === 'expense') {
        html = '<div class="bottom-border"> <div class="row expense-row"><div class="col-2 expense-date fs-15">' +
inputObj['date'] + ' </div><div class="col-8 expense-text fs-15"> ' + inputObj['description'] + ' </div><div class="col-2
expense-value expense-cost fs-15"> ₹ ' + this.numberFormat(inputObj['value']) + ' </div></div>'
    } else if (inputObj['expenseType'] === 'investment') {
        html = '<div class="bottom-border"> <div class="row expense-row"><div class="col-2 expense-date fs-15">' +
inputObj['date'] + ' </div><div class="col-8 expense-text fs-15"> ' + inputObj['description'] + ' </div><div class="col-2
expense-value expense-investment fs-15"> ₹ ' + this.numberFormat(inputObj['value']) + ' </div></div>'
    }

    document.querySelector(element).insertAdjacentHTML('beforeend', html);

    document.querySelector(HTMLStrings.inExpenseValue).value = "";
    document.querySelector(HTMLStrings.inExpenseDescription).value = "";
},

updateOverallTotal(totalValue) {
    document.querySelector(HTMLStrings.monthBudget).textContent = "₹ " + this.numberFormat(totalValue);

    if (totalValue > 0) {
        if (document.querySelector(HTMLStrings.monthBudget).classList.contains('expense-cost')) {
            document.querySelector(HTMLStrings.monthBudget).classList.remove('expense-cost');
        }
        document.querySelector(HTMLStrings.monthBudget).classList.add('expense-saving');
    } else {
        if (document.querySelector(HTMLStrings.monthBudget).classList.contains('expense-saving')) {
            document.querySelector(HTMLStrings.monthBudget).classList.remove('expense-saving');
        }
        document.querySelector(HTMLStrings.monthBudget).classList.add('expense-cost');
    }
},

displayChart(savings = 0, expenses = 0, investments = 0) {
    let ctx = document.querySelector(HTMLStrings.expenseChart);
    let expenseChart = new Chart(ctx, {
        type: 'doughnut',
        data: {
            labels: ['Savings', 'Expenses', 'Investments'],
            datasets: [{
                data: [savings, expenses, investments],
            }],
        },
    });
}

```

```

        backgroundColor: [
'rgba(32, 137, 56, 1)',
        'rgba(255, 84, 98, 1)',
        'rgba(255, 206, 86, 1)'
        ],
        borderWidth: 0.5
    ]}
},
options: {
    legend: {
        labels: {
            fontColor: 'white'
        }
    }
}
});
}
}
})());

```

```

((UIController, ExpenseController) => {

```

```

    let HTMLStrings = UIController.getHTMLStrings();

```

```

    let setupEventListeners = () => {

```

```

        document.querySelector(HTMLStrings.btnSubmitExpense).addEventListener('click', addExpense);

```

```

        document.querySelector(HTMLStrings.typeExpense).addEventListener('click', () => {

```

```

            setExpenseType('expense')

```

```

        });

```

```

        document.querySelector(HTMLStrings.typeInvestment).addEventListener('click', () => {

```

```

            setExpenseType('investment')

```

```

        });

```

```

        document.querySelector(HTMLStrings.typeSavings).addEventListener('click', () => {

```

```

            setExpenseType('savings')

```

```

        });

```

```

    };

```

```

    let setExpenseType = (type) => {

```

```

        UIController.setExpenseType(type);

```

```

    }

```

```

let addExpense = () => {
  let input = UIController.getUserExpenseInput();
  console.log(input);

  if (input.description !== "" && !isNaN(input.value) && input.value > 0) {
    console.log('Adding item');
    UIController.addListItem(input);
    ExpenseController.inputEntry(input);
    UIController.updateOverallTotal(ExpenseController.getTotalData());
    UIController.displayChart(ExpenseController.getSavingsData(), ExpenseController.getExpensesData(),
      ExpenseController.getInvestmentData());
  }
}

let init = () => {
  console.log('Initializing...');
  setupEventListeners();
  UIController.showCurrentMonth();
}

init();

})(UIController, ExpenseController);
</script>
</body>
</html>
Categories.html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Categories</title>
  </head>
  <style>
    .pad{
      padding : 500 px;
    }
  </style>
  <body>

```



```

{ % include 'skeleton.html' % }
a="
<div class="flex flex-col md:pl-64">
  <main class="flex-1">
    <div class="py-6">
      <div class="mx-auto max-w-7xl px-4 sm:px-6 md:px-8">
        <h1 class="text-2xl font-semibold text-[#d32840]">Set Limit</h1>
      </div>
      <div class="mx-auto max-w-7xl px-4 sm:px-6 md:px-8">
        <!-- Replace with your content -->
        <div class="py-4">
          <div
class="h-[38rem] rounded-lg border-4 border-dashed border-gray-200"
          >
            <form action="# Limit added" post="Limit added" >
<br>
<br>
<div class="pad">
<label for="limit" ><b> Set your monthly Limit</b></label><br><br>
<input type="text" placeholder="Enter amount" Style="display:right"><br><br>
<br>
<script>
function myFunction(){
document.getElementById("Goal").style.color="Black";
document.getElementById("Goal").style.background-color="Green";
document.getElementById("Goal").style.fontSize="5px";
</script>
<button type="button" onclick="alert('Limit Added Successfully')" style="background-color:red;color:white;padding : 5px
;border: 2px solid red">Set Limit</button>

</form>

</div>
</div>

    </div>
    <!-- /End replace -->
  </div>
</main>

```

```

</div>
</body>
</html>

```

Navbar.html

```

<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <link
      rel="stylesheet"
      href="{ {url_for('static',filename='Navbar.css')}}"
    />
  </head>
  <style>
    .neon {
      color: #fff;
      text-shadow:
        0 0 5px #fff,
        0 0 10px #fff,
        0 0 20px #fff,
        0 0 40px #0ff,
        0 0 80px #0ff,
        0 0 90px #0ff,
        0 0 100px #0ff,
        0 0 150px #0ff;
    }
  </style>
  <body>
    <nav>
      <div class="container">
        <div class="neon">
          <a href="/" class="appName" >Personal Expense Tracker</a>
        </div>
      </div>

      <br><br>
      <div class="nav">
        <div>
          <span><a href="/aboutus" class="landingLink" style="color:#FA2A55"><b> About Us</b></a></span>
          <span><a href="/contactus" class="landingLink" style="color:#FA2A55"><b> Contact Us</b></a></span>
          <span><a href="/signin" class="landingLink" style="color:#FA2A55"><b>Sign In</a><b> </span>
          <span><a href="/signup" class="landingLink" style="color:#FA2A55"><b>Sign Up</a><b></span>
        </div>
      </div>
    </nav>
  </body>

```

</html>

Signup.html

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Sign Up</title>
    <link
      rel="stylesheet"
      href="{ { url_for('static',filename='signUp.css') } }"
    />
    <style>
      .inner{
        background-color:white;
      }
      .back{
        background-color:#aef6f7;
      }
    </style>
  </head>
  <body>
    <div class="back">
      { % include 'Navbar.html' % }
    <br><br>
    <h1 style="text-align:center">Sign Up Page</h1>
    <section class="signup" style="border:2px solid #28E354 ">
    <div class="inner">
      <form style="display:right" action="/dashboard" >

        <label for="fullname"><b>Full Name</b></label>
        <input type="text" placeholder="Enter name" name="name" class="name" required></br></br>
        <label for="email"><b>Email </b></label>
        <input type="text" placeholder="Enter Email" name="email" class="email" required></br></br>
        <label for="username"><b>Username</b></label>

        <input type="text" placeholder="Enter username" name="uaername" class="username" required></br></br>
        <label for="psw"><b>Password </b></label>
```

```

        <input type="password" placeholder="Enter Password" name="psw" class="psw" required></br></br>
        <label for="psw-repeat"><b>Repeat Password</b></label>
        <input type="password" placeholder="Repeat Password" name="psw-repeat" class="psw-repeat"
required><br>
        <div class="clearfix">
        <button type="submit" class="signupbtn">Sign Up</button></a>

</form>
    <p class="or">or</p>
    <a href="/login" target="_blank"><button class="google">sign up with google</button></a>
</section>
</div>
</div>
</body>
</html>
Skeleton.html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <link
    rel="stylesheet"
    href="{{ url_for('static',filename='css/skeleton.css') }}"
    />
    <script src="https://cdn.tailwindcss.com"></script>
</head>
<body class="bg-[lightgrey]">
    <div>
        <div class="relative z-40 md:hidden" role="dialog" aria-modal="true">

            <div class="fixed inset-0 bg-[#d32840] bg-opacity-75"></div>

            <div class="fixed inset-0 z-40 flex">
>
                <div
                class="relative flex w-full max-w-xs flex-1 flex-col bg-gray-800 pt-5 pb-4"
                >

                    <div class="absolute top-0 right-0 -mr-12 pt-2">
                        <button
                        type="button"
                        class="ml-1 flex h-10 w-10 items-center justify-center rounded-full focus:outline-none focus:ring-2
focus:ring-inset focus:ring-white"
                        >
                            <span class="sr-only">Close sidebar</span>

```

```

<svg
  class="h-6 w-6 text-white"
  xmlns="http://www.w3.org/2000/svg"
  fill="none"
  viewBox="0 0 24 24"
  stroke-width="1.5"
  stroke="currentColor"
  aria-hidden="true"
>
  <path
    stroke-linecap="round"
    stroke-linejoin="round"
    d="M6 18L18 6M6 6l12 12"
  />
</svg>
</button>
</div>

```

```

<div class="flex flex-shrink-0 items-center px-4">

```

```

</div>

```

```

<div class="mt-5 h-0 flex-1 overflow-y-auto">

```

```

  <nav class="space-y-1 px-2 ">

```

```

    <a

```

```

      href="/dashboard"

```

```

      class="bg-gray-900 text-white group flex items-center px-2 py-2 text-base font-medium rounded-md"

```

```

    >

```

```

      <!-- Heroicon name: outline/home -->

```

```

      <svg

```

```

        class="text-gray-300 mr-4 flex-shrink-0 h-6 w-6"

```

```

        xmlns="http://www.w3.org/2000/svg"

```

```

        fill="none"

```

```

        viewBox="0 0 24 24"

```

```

        stroke-width="1.5"

```

```

        stroke="currentColor"

```

```

        aria-hidden="true"

```

```

      >

```

```

        <path

```

```

          stroke-linecap="round"

```

```

          stroke-linejoin="round"

```

```

          d="M2.25 12l8.954-8.954c.44-.439 1.152-.439 1.591 0L21.75 12M4.5 9.75v10.125c0 .621.504 1.125"

```

```

1.125 1.125H9.75v-4.875c0-.621.504-1.125 1.125-1.125h2.25c.621 0 1.125.504 1.125 1.125V21h4.125c.621 0 1.125-.504 1.125-1.125V9.75M8.25 21h8.25"

```

```

        />

```

```

      </svg>

```

```

      Dashboard

```

```

    </a>

```

```

    <a

```

```

      href="#"

```

class="text-gray-300 hover:bg-[#a31d2f] hover:text-black group flex items-center px-2 py-2 text-base font-medium rounded-md"

>

<!-- Heroicon name: outline/users -->

<svg

class="text-gray-400 group-hover:text-gray-300 mr-4 flex-shrink-0 h-6 w-6"

xmlns="http://www.w3.org/2000/svg"

fill="none"

viewBox="0 0 24 24"

stroke-width="1.5"

stroke="currentColor"

aria-hidden="true"

>

<path

stroke-linecap="round"

stroke-linejoin="round"

d="M15 19.128a9.38 9.38 0 002.625.372 9.337 9.337 0 004.121-.952 4.125 4.125 0 00-7.533-2.493M15 19.128v-.003c0-1.113-.285-2.16-.786-3.07M15 19.128v.106A12.318 12.318 0 018.624 21c-2.331 0-4.512-.645-6.374-1.766l-.001-.109a6.375 6.375 0 0111.964-3.07M12 6.375a3.375 3.375 0 11-6.75 0 3.375 3.375 0 016.75 0zm8.25 2.25a2.625 2.625 0 11-5.25 0 2.625 2.625 0 015.25 0z"

/>

</svg>

Team

<a

href="#"

class="text-gray-300 hover:bg-[#violet] hover:text-white group flex items-center px-2 py-2 text-base font-medium rounded-md"

>

<!-- Heroicon name: outline/folder -->

<svg

class="text-gray-400 group-hover:text-gray-300 mr-4 flex-shrink-0 h-6 w-6"

xmlns="http://www.w3.org/2000/svg"

fill="none"

viewBox="0 0 24 24"

stroke-width="1.5"

stroke="currentColor"

aria-hidden="true"

>

<path

stroke-linecap="round"

stroke-linejoin="round"

d="M2.25 12.75V12A2.25 2.25 0 014.5 9.75h15A2.25 2.25 0 0121.75 12v.75m-8.69-6.44l-2.12-2.12a1.5 1.5 0 00-1.061-.44H4.5A2.25 2.25 0 002.25 6v12a2.25 2.25 0 002.25 2.25h15A2.25 2.25 0 0021.75 18V9a2.25 2.25 0 00-2.25-2.25h-5.379a1.5 1.5 0 01-1.06-.44z"

/>

</svg>

Projects

<a

```

      href="#"
      class="text-gray-300 hover:bg-gray-700 hover:text-white group flex items-center px-2 py-2 text-base
font-medium rounded-md"
    >
    <!-- Heroicon name: outline/categories -->
    <svg
      class="text-gray-400 group-hover:text-gray-300 mr-4 flex-shrink-0 h-6 w-6"
      xmlns="http://www.w3.org/2000/svg"
      fill="none"
      viewBox="0 0 24 24"
      stroke-width="1.5"
      stroke="currentColor"
      aria-hidden="true"
    >
      <path
        stroke-linecap="round"
        stroke-linejoin="round"
        d="M6.75 3v2.25M17.25 3v2.25M3 18.75V7.5a2.25 2.25 0 012.25-2.25h13.5A2.25 2.25 0 0121
7.5v11.25m-18 0A2.25 2.25 0 005.25 21h13.5A2.25 2.25 0 0021 18.75m-18 0v-7.5A2.25 2.25 0 015.25 9h13.5A2.25 2.25
0 0121 11.25v7.5"
      />
    </svg>
    Categories
  </a>

  <a
    href="/categories"
    class="text-gray-300 hover:bg-gray-700 hover:text-white group flex items-center px-2 py-2 text-base
font-medium rounded-md"
  >
    <!-- Heroicon name: outline/inbox -->
    <svg
      class="text-gray-400 group-hover:text-gray-300 mr-4 flex-shrink-0 h-6 w-6"
      xmlns="http://www.w3.org/2000/svg"
      fill="none"
      viewBox="0 0 24 24"
      stroke-width="1.5"
      stroke="currentColor"
      aria-hidden="true"
    >
      <path
        stroke-linecap="round"
        stroke-linejoin="round"
        d="M2.25 13.5h3.86a2.25 2.25 0 012.012 1.244l.256.512a2.25 2.25 0 002.013 1.244h3.218a2.25 2.25
0 002.013-1.244l.256-.512a2.25 2.25 0 012.013-1.244h3.859m-19.5 3.38V18a2.25 2.25 0 002.25 2.25h15A2.25 2.25 0
0021.75 18v-4.162c0-.224-.034-.447-.1-.661L19.24 5.338a2.25 2.25 0 00-2.15-1.588H6.911a2.25 2.25 0 00-2.15
1.588L2.35 13.177a2.25 2.25 0 00-.1.661z"
      />
    </svg>
    Documents
  </a>

```

```

<a
  href="#"
  class="text-gray-300 hover:bg-gray-700 hover:text-white group flex items-center px-2 py-2 text-base
font-medium rounded-md"
>
  <!-- Heroicon name: outline/chart-bar -->
  <svg
    class="text-gray-400 group-hover:text-gray-300 mr-4 flex-shrink-0 h-6 w-6"
    xmlns="http://www.w3.org/2000/svg"
    fill="none"
    viewBox="0 0 24 24"
    stroke-width="1.5"
    stroke="currentColor"
    aria-hidden="true"
  >
    <path
      stroke-linecap="round"
      stroke-linejoin="round"
      d="M3 13.125C3 12.504 3.504 12 4.125 12h2.25c.621 0 1.125.504 1.125 1.125v6.75C7.5 20.496 6.996 21
6.375 21h-2.25A1.125 1.125 0 0 1 19.875v-6.75zM9.75 8.625c0-.621.504-1.125 1.125-1.125h2.25c.621 0 1.125.504 1.125
1.125v11.25c0 .621-.504 1.125-1.125 1.125h-2.25a1.125 1.125 0 0 1-1.125-1.125V8.625zM16.5 4.125c0-.621.504-1.125
1.125-1.125h2.25C20.496 3 21 3.504 21 4.125v15.75c0 .621-.504 1.125-1.125 1.125h-2.25a1.125 1.125 0 0 1-1.125-
1.125V4.125z"
    />
  </svg>
  Reports
</a>
</nav>
</div>
</div>

<div class="w-14 flex-shrink-0" aria-hidden="true">
  <!-- Dummy element to force sidebar to shrink to fit close icon -->
</div>
</div>
</div>

<!-- Static sidebar for desktop -->
<div class="hidden md:fixed md:inset-y-0 md:flex md:w-64 md:flex-col">
  <!-- Sidebar component, swap this element with another sidebar if you like -->
  <div class="flex min-h-0 flex-1 flex-col bg-[#C9E927]">
    <div class="flex h-16 flex-shrink-0 items-center bg-[#E32892] px-4">
      <a href="/" class="text-2xl font-bold text-[#fff7e9]">Expense Tracker</a>
    </div>
    <div class="flex flex-1 flex-col overflow-y-auto">
      <nav class="flex-1 space-y-1 px-2 py-4">
        <!-- Current: "bg-gray-900 text-white", Default: "text-gray-300 hover:bg-gray-700 hover:text-white" -->
        <a
          href="/dashboard"
          class="bg-[skyblue] text-[black] group flex items-center px-2 py-2 text-sm font-medium rounded-md"
        >
          <!--

```


Heroicon name: outline/home

Current: "text-gray-300", Default: "text-gray-400 group-hover:text-gray-300"

-->

```
<svg
  class="text-gray-300 mr-3 flex-shrink-0 h-6 w-6"
  xmlns="http://www.w3.org/2000/svg"
  fill="none"
  viewBox="0 0 24 24"
  stroke-width="1.5"
  stroke="currentColor"
  aria-hidden="true"
```

>

```
<path
  stroke-linecap="round"
  stroke-linejoin="round"
```

```
  d="M2.25 12l8.954-8.955c.44-.439 1.152-.439 1.591 0L21.75 12M4.5 9.75v10.125c0 .621.504 1.125 1.125 1.125H9.75v-4.875c0-.621.504-1.125 1.125-1.125h2.25c.621 0 1.125.504 1.125 1.125V21h4.125c.621 0 1.125-.504 1.125-1.125V9.75M8.25 21h8.25"
```

```
/>
```

```
</svg>
```

Dashboard

<a

href="/addingExpenses"

class="text-[black] hover:bg-[#a31d2f] hover:text-white group flex items-center px-2 py-2 text-sm font-medium rounded-md"

>

<!-- Heroicon name: outline/users -->

```
<svg
```

```
  class="text-[#fff7e9] group-hover:text-gray-300 mr-3 flex-shrink-0 h-6 w-6"
  xmlns="http://www.w3.org/2000/svg"
  fill="none"
  viewBox="0 0 24 24"
  stroke-width="1.5"
  stroke="currentColor"
  aria-hidden="true"
```

>

```
<path
  stroke-linecap="round"
  stroke-linejoin="round"
```

```
  d="M15 19.128a9.38 9.38 0 002.625.372 9.337 9.337 0 004.121-.952 4.125 4.125 0 00-7.533-2.493M15 19.128v-.003c0-1.113-.285-2.16-.786-3.07M15 19.128v.106A12.318 12.318 0 018.624 21c-2.331 0-4.512-.645-6.374-1.766l-.001-.109a6.375 6.375 0 0111.964-3.07M12 6.375a3.375 3.375 0 11-6.75 0 3.375 3.375 0 016.75 0zm8.25 2.25a2.625 2.625 0 11-5.25 0 2.625 2.625 0 015.25 0z"
```

```
/>
```

```
</svg>
```

Adding Expenses

<a

```

href="/categories"
class="text-[black] hover:bg-[#a31d2f] hover:text-white group flex items-center px-2 py-2 text-sm font-
medium rounded-md"
>
<!-- Heroicon name: outline/folder -->
<svg
class="text-[#fff7e9] group-hover:text-gray-300 mr-3 flex-shrink-0 h-6 w-6"
xmlns="http://www.w3.org/2000/svg"
fill="none"
viewBox="0 0 24 24"
stroke-width="1.5"
stroke="currentColor"
aria-hidden="true"
>
<path
stroke-linecap="round"
stroke-linejoin="round"
d="M2.25 12.75V12A2.25 2.25 0 014.5 9.75h15A2.25 2.25 0 0121.75 12v.75m-8.69-6.44l-2.12-
2.12a1.5 1.5 0 00-1.06-1.44H4.5A2.25 2.25 0 002.25 6v12a2.25 2.25 0 002.25 2.25h15A2.25 2.25 0 0021.75 18V9a2.25
2.25 0 00-2.25-2.25h-5.379a1.5 1.5 0 01-1.06-.44z"
/>
</svg>
Set Limit
</a>
<a
href="/reports"
class="text-[black] hover:bg-[#a31d2f] hover:text-white group flex items-center px-2 py-2 text-sm font-
medium rounded-md"
>
<!-- Heroicon name: outline/categories -->
<svg
class="text-[#fff7e9] group-hover:text-gray-300 mr-3 flex-shrink-0 h-6 w-6"
xmlns="http://www.w3.org/2000/svg"
fill="none"
viewBox="0 0 24 24"
stroke-width="1.5"
stroke="currentColor"
aria-hidden="true"
>
<path
stroke-linecap="round"
stroke-linejoin="round"
d="M6.75 3v2.25M17.25 3v2.25M3 18.75V7.5a2.25 2.25 0 012.25-2.25h13.5A2.25 2.25 0 0121
7.5v11.25m-18 0A2.25 2.25 0 005.25 21h13.5A2.25 2.25 0 0021 18.75m-18 0v-7.5A2.25 2.25 0 015.25 9h13.5A2.25 2.25
0 0121 11.25v7.5"
/>
</svg>
Reports
</svg>
<a
href="/tips"
class="text-[black] hover:bg-[#a31d2f] hover:text-white group flex items-center px-2 py-2 text-sm font-

```

medium rounded-md"

```
>
<!-- Heroicon name: outline/inbox -->
<svg
  class="text-[#fff7e9] group-hover:text-gray-300 mr-3 flex-shrink-0 h-6 w-6"
  xmlns="http://www.w3.org/2000/svg"
  fill="none"
  viewBox="0 0 24 24"
  stroke-width="1.5"
  stroke="currentColor"
  aria-hidden="true"
>
  <path
    stroke-linecap="round"
    stroke-linejoin="round"
    d="M2.25 13.5h3.86a2.25 2.25 0 012.012 1.244l.256.512a2.25 2.25 0 002.013 1.244h3.218a2.25 2.25 0
002.013-1.244l.256-.512a2.25 2.25 0 012.013-1.244h3.859m-19.5 3.38V18a2.25 2.25 0 002.25 2.25h15A2.25 2.25 0
0021.75 18v-4.162c0-.224-.034-.447-.1-.661L19.24 5.338a2.25 2.25 0 00-2.15-1.588H6.911a2.25 2.25 0 00-2.15
1.588L2.35 13.177a2.25 2.25 0 00-.1.661z"
  />
</svg>
Tips
</a>

<a
  href="/helpnsupport"
  class="text-[black] hover:bg-[#a31d2f] hover:text-white group flex items-center px-2 py-2 text-sm font-
medium rounded-md"
>
  <!-- Heroicon name: outline/chart-bar -->
  <svg
    class="text-[#fff7e9] group-hover:text-gray-300 mr-3 flex-shrink-0 h-6 w-6"
    xmlns="http://www.w3.org/2000/svg"
    fill="none"
    viewBox="0 0 24 24"
    stroke-width="1.5"
    stroke="currentColor"
    aria-hidden="true"
  >
    <path
      stroke-linecap="round"
      stroke-linejoin="round"
      d="M3 13.125C3 12.504 3.504 12 4.125 12h2.25c.621 0 1.125.504 1.125 1.125v6.75C7.5 20.496 6.996 21
6.375 21h-2.25A1.125 1.125 0 013 19.875v-6.75z"
      M9.75 8.625c0-.621.504-1.125 1.125-1.125h2.25c.621 0 1.125.504
1.125 1.125v1.125c0 .621-.504 1.125-1.125 1.125h-2.25a1.125 1.125 0 01-1.125-1.125V8.625z"
      M16.5 4.125c0-.621.504-1.125 1.125-1.125h2.25C20.496 3 21 3.504 21 4.125v15.75c0 .621-.504 1.125-1.125
1.125h-2.25a1.125 1.125 0 01-1.125-1.125V4.125z"
    />
  </svg>
  Help & Support
</a>
```

11-1.06 1.061-3.329-3.328A7 7 0 012 9z"

```

    />
  </svg>
</div>
<input
  id="search-field"
  class="block h-full w-full border-transparent py-2 pl-8 pr-3 text-gray-900 placeholder-[black] bg-
[#fff7e9] focus:border-transparent focus:placeholder-gray-400 focus:outline-none focus:ring-0 sm:text-sm"
  placeholder="Search"
  type="search"
  name="search"
/>
</div>
</form>
</div>
<div class="ml-4 flex items-center md:ml-6">
  <button
    type="button"
    class="rounded-full bg-[#fff7e9] p-1 text-gray-400 hover:text-gray-500 focus:outline-none focus:ring-2
focus:ring-indigo-500 focus:ring-offset-2"
  >
    <span class="sr-only">View notifications</span>
    <!-- Heroicon name: outline/bell -->
    <svg
      class="h-6 w-6 text-[#d32840]"
      xmlns="http://www.w3.org/2000/svg"
      fill="none"
      viewBox="0 0 24 24"
      stroke-width="1.5"
      stroke="currentColor"
      aria-hidden="true"
    >
      <path
        stroke-linecap="round"
        stroke-linejoin="round"
        d="M14.857 17.082a23.848 23.848 0 005.454-1.31A8.967 8.967 0 0118 9.75v-.7V9A6 6 0 006
9v.75a8.967 8.967 0 01-2.312 6.022c1.733.64 3.56 1.085 5.455 1.31m5.714 0a24.255 24.255 0 01-5.714 0m5.714 0a3 3
0 11-5.714 0"
      />
    </svg>
  </button>

  <!-- Profile dropdown -->
  <div class="relative ml-3">
    <div>
      <button
        type="button"
        class="flex max-w-xs items-center rounded-full bg-white text-sm focus:outline-none focus:ring-2
focus:ring-indigo-500 focus:ring-offset-2"
        id="user-menu-button"
        aria-expanded="false"
        aria-haspopup="true"
      >

```

```

    <span class="sr-only">Open user menu</span>
    
  </button>
</div>

<!--
Dropdown menu, show/hide based on menu state.

Entering: "transition ease-out duration-100"
From: "transform opacity-0 scale-95"
To: "transform opacity-100 scale-100"
Leaving: "transition ease-in duration-75"
From: "transform opacity-100 scale-100"
To: "transform opacity-0 scale-95"
-->
<!-- Active: "bg-gray-100", Not Active: "" -->
<!-- <div
      class="absolute right-0 z-10 mt-2 w-48 origin-top-right rounded-md bg-white py-1 shadow-lg ring-1
ring-black ring-opacity-5 focus:outline-none"
      role="menu"
      aria-orientation="vertical"
      aria-labelledby="user-menu-button"
      tabindex="-1"
    >

    <a
      href="#"
      class="block px-4 py-2 text-sm text-gray-700"
      role="menuitem"
      tabindex="-1"
      id="user-menu-item-0"
    >Your Profile</a>
  >

  <a
    href="#"
    class="block px-4 py-2 text-sm text-gray-700"
    role="menuitem"
    tabindex="-1"
    id="user-menu-item-1"
  >Settings</a>
  >

  <a
    href="#"
    class="block px-4 py-2 text-sm text-gray-700"
    role="menuitem"
    tabindex="-1"

```

```

        id="user-menu-item-2"
        >Sign out</a
    >
</div> -->
</div>
</div>
</div>
</div>
</div>

</div>
</div>
</body>
</html>

```

Deployment.yaml

```

apiVersion: apps/v1

kind: Deployment
metadata:
  name: sakthi-flask-node-deployment
spec:
  replicas: 1
  selector:
    matchLabels:
      app: flasknode
  template:
    metadata:
      labels:
        app: flasknode
    spec:
      containers:
        - name: flasknode
          image: icr.io/sakthi_expense_tracker2/flask-template2
          imagePullPolicy: Always
          ports:
            - containerPort: 5000

```

Sendemail.py

```

import smtplib
import sendgrid as sg
import os
from sendgrid.helpers.mail import Mail, Email, To, Content
SUBJECT = "expense tracker"

s = smtplib.SMTP('smtp.gmail.com', 587)

def sendmail(TEXT,email):
    print("sorry we cant process your candidature")
    s = smtplib.SMTP('smtp.gmail.com', 587)
    s.starttls()

```

```

# s.login("fawwashkhan@gmail.com", "fawwashkhan")
s.login("tproduct8080@gmail.com", "lxixbmpnxbkiemh")message =
'Subject: {} \n\n{}'.format(SUBJECT, TEXT)
#      s.sendmail("fawwashkhan@gmail.com",      email,      message)
s.sendmail("il.tproduct8080@gmail.com", email, message)s.quit()
def sendgridmail(user,TEXT):

# from_email = Email("fawwashkhan@gmail.com")from_email
= Email("tproduct8080@gmail.com") to_email = To(user)
subject = "Sending with SendGrid is Fun"content =
Content("text/plain",TEXT)
mail = Mail(from_email, to_email, subject, content)#
Get a JSON-ready representation of the Mail object
mail_json = mail.get()
# Send an HTTP POST request to /mail/send
response = sg.client.mail.send.post(request_body=mail_json)
print(response.status_code)
print(response.headers)

```



```
def sendgridmail(user,TEXT):  
  
    # from_email =  
    Email("mohamedriyazafzal@gmail.com")from_email =  
    Email("tproduct8080@gmail.com") to_email =  
    To(user)  
    subject = "Sending with SendGrid is  
    Fun"content =  
    Content("text/plain",TEXT)  
    mail = Mail(from_email, to_email, subject, content)  
  
    # Get a JSON-ready representation of the Mail  
    objectmail_json = mail.get()  
    # Send an HTTP POST request to /mail/send  
    response = sg.client.mail.send.post(request_body=mail_json)  
    print(response.status_code)  
    print(response.headers)
```

Github Source code link:

<https://github.com/IBM-EPBL/IBM-Project-34623-1660240395>

Project Demo Link:

https://youtu.be/79d_iX2gMdg

<https://drive.google.com/file/d/1qnyuldDzvnZgyziqnM-fHb89VD8rfebT/view?usp=sharing>