

**K.L.N College of Information Technology, Pottapalayam**

**Department of Information Technology**

**Sub.Code & Sub.Name: HX 8001 & Professional Readiness for Innovation, Employability  
and Entrepreneurship**

**“Project Report”**

**“Personal Expenses Tracker Application”**

**Team ID: PNT2022TMID52537**

**Submitted by,**

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## **Table of contents**

- 1. INTRODUCTION**
  1. Project Overview
  2. Purpose
- 2. LITERATURE SURVEY**
  1. Existing problem
  2. References
  3. Problem Statement Definition
- 3. IDEATION & PROPOSED SOLUTION**
  1. Empathy Map Canvas
  2. Ideation & Brainstorming
  3. Proposed Solution
  4. Problem Solution fit
- 4. REQUIREMENT ANALYSIS**
  1. Functional requirement
  2. Non-Functional requirements
- 5. PROJECT DESIGN**
  1. Data Flow Diagrams
  2. Solution & Technical Architecture
  3. User Stories
- 6. PROJECT PLANNING & SCHEDULING**
  1. Sprint Planning & Estimation
  2. Sprint Delivery Schedule
  3. Reports from JIRA
- 7. CODING & SOLUTIONING (Explain the features added in the project along with code)**
  1. Feature 1
  2. Feature 2
  3. Database Schema (if Applicable)
- 8. TESTING**
  1. Test Cases
  2. User Acceptance Testing
- 9. RESULTS**
  1. Performance Metrics
- 10. ADVANTAGES & DISADVANTAGES**
- 11. CONCLUSION**
- 12. FUTURE SCOPE**
- 13. APPENDIX**
  - Source Code
  - GitHub & Project Demo Link

## **1. INTRODUCTION**

### **1.1 Project Overview**

Personal Expense Tracker is a web application that allows you to track the daily expense of the user and help them to keep track of their expenses daily ,monthly ,weekly and yearly basis. It will also create a digital records for the user's income and various expenses spent by the user is calculated. It also gets the input from the user as how much income earned and the date of the income earned and further creates a transaction entry and sums up all the total income. Further we can give voice commands and it is responsive . It will be very helpful for the users to manage their needs and they can spend in a better way by keeping track of the application daily basis.

### **1.2 Purpose**

The main purpose of personal expense tracker application is used to keep track of expenses based on the users income and how much they spent and also they can keep track of their expenses daily,monthly,weekly and yearly basis.

## **2. LITERATURE SURVEY**

### **Paper 1 – Expense Tracker**

Publisher International Journal for Research in Applied Science & Engineering Technology (IJRASET)

The Expense Tracker is a Web application that facilitates the users to keep track their expenses. This application records all the expenses of the users and the user can view them anytime. The application provides monthly and year-wise expenditures which will let the user know where he is spending the most. It also provides graphical visualizations which helps the user to perform detailed analysis on the expenditure.

### **Pros**

- Using paper is not easy to manage the expenses. This application eliminates the usage of paper and excel sheets to keep track the user's expenses.
- It saves time and requires less human effort.
- The user just needs to enter the income and the expenses, everything will be taken care by the application.

### **Cons**

- There is not limit on the amount that can be used by the user
- The application does not send any notification regarding the usage of the amount by the user.

## Paper 2 - **eExpense: A Smart Approach to Track Everyday Expense**

Publisher: IEEE

eExpense is a mobile application that runs on the Android smartphones. Using this application, users can save their expense by scanning the bills and the receipt copies. Optical Character Recognition (OCR) is used to extract the information from the bills or receipts. It is also capable of tracking savings from user's saving accounts by reading the SMS's automatically from the message application of the android device.

The application consists of four sections such as debit, credit, balance and history. Debit section records the expenses of the user. The input can be given either manually by the user or the system will take automatically by scanning. When users open the credit interface, the system reads all the messages from the user's messaging inbox. The input can be given manually or it can be taken by the system automatically.

This application allows users to set the budget for a month or year. When the limit exceeds, it sends a notification to the user. Balance section shows the monthly and yearly balance. History section contains calendar. By selecting a particular date, it shows the expenses on that day.

### **Pros**

- It is an automated system to store the expense of the user and the expenses are stored in the database category wise.
- This application extracts the textual information from the receipts and saves the amount and description for further processing.
- It also monitors user's income by tracking the received SMS's from the user's saving accounts. By calculating income and expense it produces the user's balance in monthly and yearly basis.
- It eliminates the usage of paper and excel sheets to keep track the user's expenses. It saves time and requires less human effort.

### **Cons**

- This application is useful only for Android users.
- It does not provide graphical visualizations which could be helpful for detailed analysis of the expenditure.

## Paper 3 – **Expense Tracker**

Publisher: International Research Journal of Modernization in Engineering Technology and Science (IRJMETs)

The Expense Tracker is a mobile application that allows the users to download in their mobile phones and can be used to track and update their daily costs. So that they can keep track of their earnings. The user can know easily on how much the amount they have spent on the various things for household, clothing and house rentals and we can easily depict the cost to the user using pie charts. Based on this we can keep track of daily expenses that we spent in a single day. Moreover, this is an automated solution for tracking the expenses.

### **Pros**

- The application does not require a large number of users and only requires them to enter the expense amount, date, category, merchant, and other optional parameters
- It helps the android users in any situation by keeping track of their expenses every day.
- App also sends customized tips in the form of push notifications which helps users to manage expenses.

### **Cons**

- This application is made only for android users.
- There is no limit for the amount that is been used by the user.

### **Paper 4 - Daily Expense Tracker**

Publisher: International Journal of Research in Engineering and Science (IJRES)

Daily Expense Tracker is a web application that allows you to track the daily expense of the user and help them to keep track of their expenses daily ,monthly ,weekly and yearly basis. It will also create a digital records for the user's income and various expenses spent by the user is calculated. It also gets the input from the user as how much income earned and the date of the income earned and further creates a transaction entry and sums up all the total income. Further we can give voice commands and it is responsive .It will be very helpful for the users to manage their needs and they can spend in a better way by keeping track of the application daily basis. Daily Expense Tracker application can be accessed from any browsers like Google chrome, Mozilla Firefox and it allows for portable work environment. We can also digitally maintain the records with visual representation and also graphically view them using bar graphs and pie charts on how much amount is being spent and can also eliminate the physical entries by using voice commands. Daily expense Tracker is an AI powered engine providing voice recognition which is very helpful for the users to do the work in easiest way. The application is divided into three major components that is income, expense and create transaction section. Create transaction component allows user to choose from two categories whether it is a Expense or an Income and also choose from list of

types of income or expense enter the amount and date and create entry. After the creation of transaction pie charts are created in the income or expense section based on type of transaction. All of these features can also be updated or deleted using users voice commands.

### **Pros**

- It is an AI powered engine so that is easy to store all the expenses of the user in a database.
- It eliminates the user by typing manually instead it is very helpful using voice recognition.
- It saves time and user friendly and also requires less human effort.
- It is a platform independent web application. Users can use this application either in their mobile phones or desktops. Both Income and Expenses pie chart will be created when we add any item and distributed according to the user need.
- If any user doesn't know how to add or delete then we can simply give voice commands.

### **Cons**

- There is no option to scan the barcode on the price tag which may decreasing the efforts of entering the data.
- There is no notification system when the user expenses exceeds the income to warn the situation.

### **2.1 References**

1. <https://www.ijraset.com/files/serve.php?FID=33797>
2. <https://ieeexplore.ieee.org/document/8628070>
3. [https://www.irjmets.com/uploadedfiles/paper/issue\\_4\\_april\\_2022/21604/final/fin\\_irjmets1651132467.pdf](https://www.irjmets.com/uploadedfiles/paper/issue_4_april_2022/21604/final/fin_irjmets1651132467.pdf)
4. <https://www.ijres.org/papers/Volume-9/Issue-12/Ser-4/L09127073.pdf>

### **2.2 Problem Statement Definition**

The Expense Tracker is a mobile application that allows the users to download in their mobile phones and can be used to track and update their daily costs. So that they can keep track of their earnings. The user can know easily on how much the amount they have spent on the various things for household, clothing and house rentals and we can easily depict the cost to the user using pie charts. Based on this we can keep track of daily expenses that we spent in a single day. Moreover, this is an automated solution for tracking the expenses.

## **3 IDEATION & PROPOSED SOLUTION**

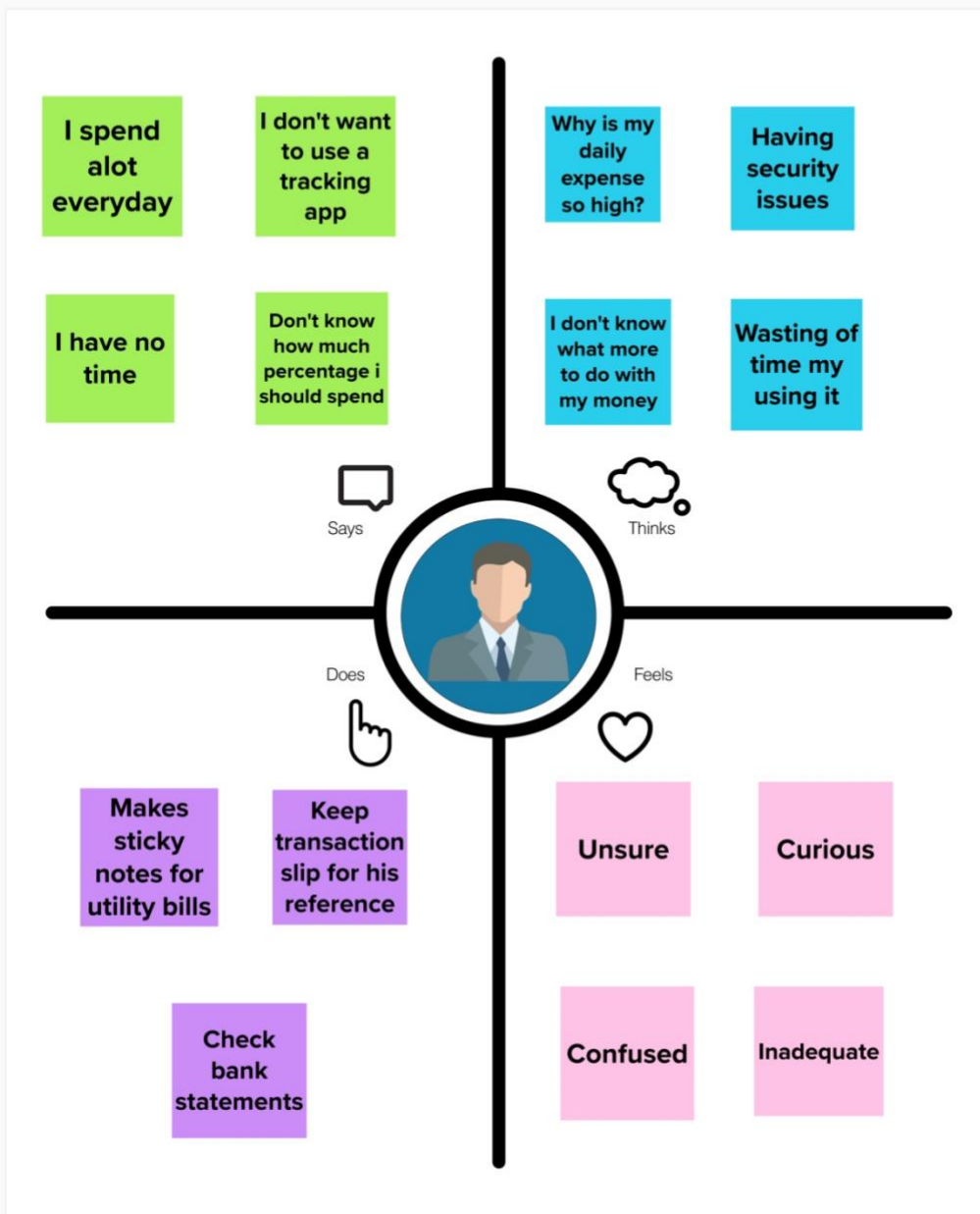
### 3.1 Empathy Map Canvas :

Edit this template  
Right-click to unlock

# Empathy Map

Dive into the mind of the user for focused product development

● Build empathy and keep your focus on the user by putting yourself in their shoes.




Share your feedback

## 3.2 Ideation & Brainstorming

Ideation and Brainstorming are performed to generate ideas and solutions. Brainstorming is a group activity unlike ideation

Template




### Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

🕒 10 minutes to prepare  
🕒 1 hour to collaborate  
👥 2-8 people recommended

[Share template feedback](#)



#### Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes

A

Team gathering

Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B

Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.

C

Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →

1


#### Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕒 5 minutes


PROBLEM


How might we track the personal expenses to save their earned amount?





#### Key rules of brainstorming


To run a smooth and productive session


 Stay in topic.

 Encourage wild ideas.

 Defer judgment.

 Listen to others.

 Go for volume.

 If possible, be visual.



#### Need some inspiration?

See a finished version of the template to kick-start your work.

[Open example](#) →



2

**Brainstorm**

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

⌚ 10 minutes

**TIP**

You can select a sticky note from the panel on the right to quickly add to your drawing.

**VAISHNAVLO**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

**SANGEETHA.K**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

**PRABHAKR**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

**THAMARASELVK**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

3

**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

**EXPORT**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

**GRAPH**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

**TIP**

Add a storage box to sticky notes to make them easy to find, delete, or move. Important ideas can be moved to the right side.

**REMAINDER**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

**INTEREST CALCULATION**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

**FINANCE NEWS**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

**ADD/DELETE CATEGORIES**

1. I will create a new page for each topic.

2. I will create a new page for each topic.

3. I will create a new page for each topic.

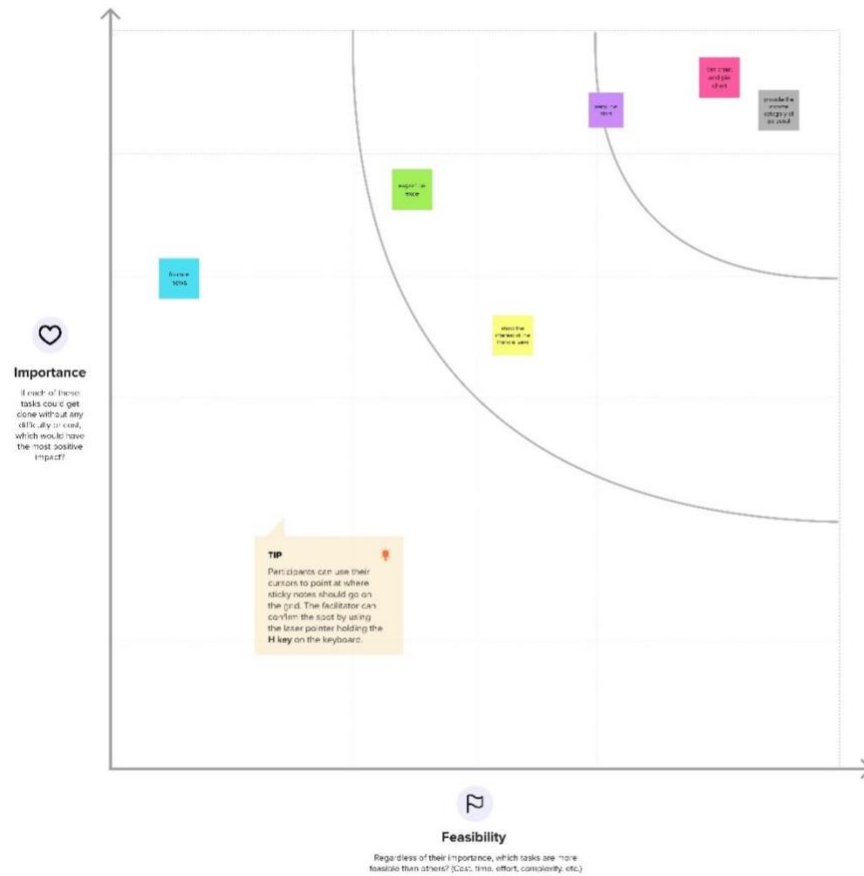


4

### Prioritize

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.

🕒 20 minutes



→

### After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

### Quick add-ons

- A Share the mural**  
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- B Export the mural**  
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

### Keep moving forward

- Strategy blueprint**  
Define the components of a new idea or strategy.  
[Open the template →](#)
- Customer experience journey map**  
Understand customer needs, motivations, and obstacles for an experience.  
[Open the template →](#)
- Strengths, weaknesses, opportunities & threats**  
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.  
[Open the template →](#)

[Share template feedback](#)



## 3.3 proposed solution

S.NO	PARAMETER	DESCRIPTION
1.	Problem statement	In paper-based expense tracker system it is difficult to track our monthly expenses manually. In paper-based expense tracker system it is difficult to track our monthly expenses manually. The paper-based expense records may get lost in case of fire accidents, flood etc.
2.	Scalability of the solution	This application can handle large number of users and data with high performance and security. This application can adapt for both large-scale and small-scale purposes. Easily available in all kinds of devices.
3.	Idea/solution description	Daily expense management system which is specially designed for non-salaried and salaried personnel for keeping track of their daily expenditure with easy and effective way through computerized system which tends to eliminate manual paper works. Personal finance applications will ask users to add their expenses and based on their expenses wallet balance will be updated which will be visible to the user. They have an option to set a limit for the amount to be used for that particular month if the limit is exceeded the user will be notified with an email alert.
4.	Novelty/uniqueness	The user gets notified when their expense exceeds the limit and also it reminds the user when they forgot to make entry. Tracking expenses through SMS. Data analytics on expenses. Future expense prediction

5.	Social impact/customer satisfaction	The application should be able to generate reports of their spending and notify users if they have exceeded their budget. It is designed to be dynamic to produce the prediction. It also provides users' personal information, their income as well as their expenses. This application can create awareness among common people about finance and stuffs. This application also helps user to be financially responsible. It Reduces time rather than entering details manually.
6.	Bussiness model (revenue model)	This Application is provided for free of cost. But It will have some advertisement. In premium version there is no advertisement and contains some additional features.

### 3.4 Problem Solution fit

The Problem-Solution Fit means that the solution that is realized can actually solve the problem that the customer faces.

<b>1. CUSTOMER SEGMENT(S)</b> <small>CS</small> People who are struggling to track their expenses are our customers. They can use our app to maintain records about their income and expenses.	<b>6. CUSTOMER LIMITATIONS</b> <small>CL</small> User have to entry every record manually. The category divided may be blunder or messy. person who is handling system must have some technical knowledge.	<b>5. AVAILABLE SOLUTIONS</b> <small>AS</small> User can add their income and expenses. They have an option to set a limit for the amount to be used for that particular month if the limit is exceeded the user will be notified with an email alert.
<b>2. PROBLEMS / PAINS</b> <small>PS</small> In paper-based expense tracker system it is difficult to track our monthly expenses manually. The paper-based expense records may get lost in case of fire accidents, flood etc.	<b>9. PROBLEM ROOT / CAUSE</b> <small>RC</small> 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.	<b>7. BEHAVIOR</b> <small>BE</small> They may keep a temporary note on their mobile. He/She will tell the other persons to remember the expense they do while calculating the expenses they consider only on the expenses that are single time and huge and leave the rest
<b>3. TRIGGERS TO ACT</b> <small>TR</small> This application can create awareness among common people about their income and expenses. It reduces time rather than entering details manually.	<b>10. YOUR SOLUTION</b> <small>SL</small> The application should be able to generate reports of their spending and notify users if they have exceeded their budget. This application can create awareness among common people about finance and stuffs. This application also helps user to be financially responsible.	<b>8. CHANNELS OF BEHAVIOR</b> <small>CH</small> ONLINE Download statements from bank and pay monthly installment  OFFLINE Using spreadsheets and notes for financial management
<b>4. EMOTIONS</b> <small>EM</small> BEFORE / AFTER Frustration, Confusion, Inadequate > Boost, Feeling smart, Be an example for others		

## 4 REQUIREMENT ANALYSIS

### 4.1 Functional requirements

The suggested solution's functional requirements are listed below

FR.NO	FUNCTIONAL REQUIREMENT	SUB REQUIREMENT
FR-1	User registration	Form for collecting details
FR-2	Login	Enter user name and password
FR-3	Calender	personal expense tracker applicaton must allow user to add the form of report.

FR-4	Expense tracker	The application should graphically represent the expense in the form of report
FR-5	Category	This application shall allow user to add categories of their expenses.

## 4.2 Non-Functional requirements

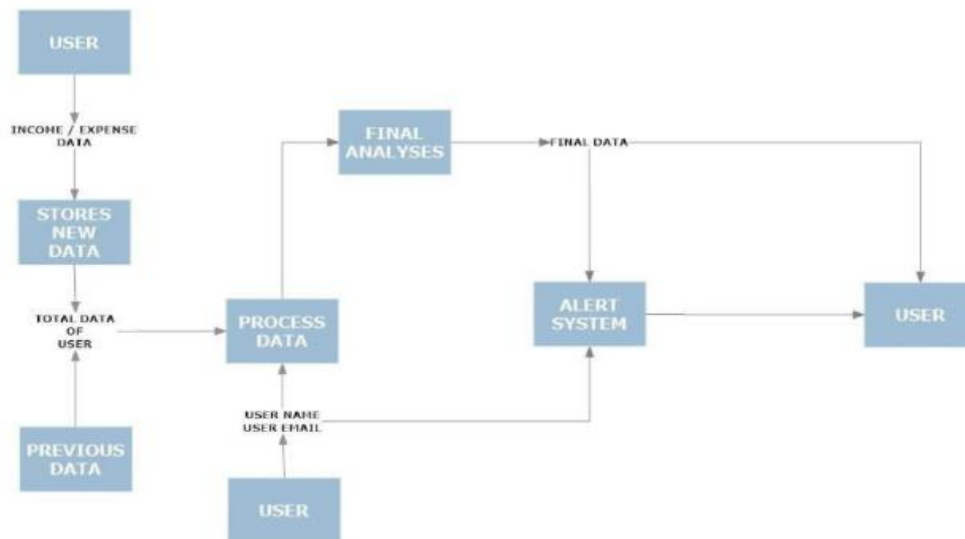
The non-functional requirements of the proposed solution are as follows.

FR.NO	NON-FUNCTIONAL REQUIREMENT	SUB REQUIREMENT
NFR-1	Usability	Help to keep an accurate record of your income and expenses
NFR-2	Security	Budget tracking apps are considered very safe from those who commit cyber crimes
NFR-3	Performance	The types of expense are categories along with an option. through put of the system is increased due to light weight data base support
NFR-4	Availability	The application must have a hundred percent up -time
NFR-5	Scalability	Ability to appropriately handle increasing demands

# 5 PROJECT DESIGN

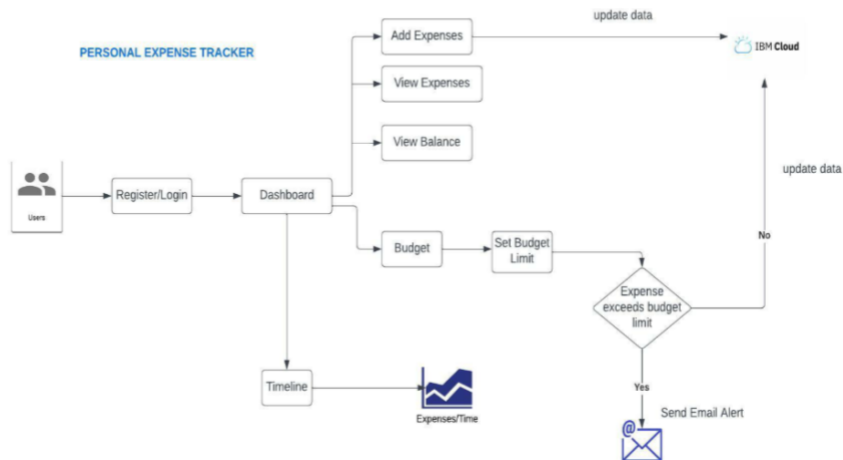
## 5.1 Data Flow Diagrams

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,



### Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



## 5.2 User Stories

An informal, generic explanation of a software feature written from the viewpoint of the end user is known as a user story. Its objective is to explain how a software feature will benefit the user.

User type	Functional Requirement(e pic)	Users story number	User story/task	Acceptance criteria	Priorit y	Releas e
Customer(Mobile user/Web user)	Registration	USN-1	As a customer for the application by entering my email,password and conform password	I can access my account/dashboard	high	Sprint -1
		USN-2	As a customer I will receive conformation email once I have register for the application	I can receive conformation email and click conform	high	Sprint -1
		USN-3	As a customer I can register the application through facebook,gmail	I can register and success the dashboard with facebook login,gmail login	low	Sprint -1
		USN-4	As a customer I can register for the application through gmail,facebook	I can register application through gmail	Medium	Sprint -1
	login	USN-5	As a customer I can log into a application by entering user name and password	I can log in by entering user name and password	high	Sprint -1



	dashboard	USN-6	As a customer I can track data of sales of products and inventory levels	I can track data of sales of products and inventory levels	high	Sprint -1
Customer care extension	support	USN-7	As a executive I provide answers for the queries asked by customer	I provide answers for the queries asked by customer	high	Sprint -2
Admin	Manage the stocks	USN-8	As a executive I provide answers for the queries asked by the customer	I provide answers for the queries asked by the retailer	high	Sprint -3
	Control all the users	USN-9	As a admin I manage the stocks y adding,shipping and storing the stocks in the storage units	I manage the stocks y adding,shipping and storing the stocks in the storage units	high	Sprint -3
	Access the database	USN-10	As a admin I can control all the retails by performing basic CRUD operations	I can control all the retails by performing basic CRUD operations	high	Sprint -3

## 6 PROJECT PLANNING & SCHEDULING

### 6.1 Sprint Planning & Estimation

The purpose of sprint planning is to define what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole team.

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement(epic)	User story number	User story/task	Story point	Priority	Team Memebers
Sprint-1	Registration	USN-1	As a user,I can register for the application by entering my email,password and confirming my password	2	High	VaishnaviG
Sprint-1		USN-2	As a user,I will receive confirmation email once I have register for the application	1	High	SangeethaK
Sprint-2		USN-3	As a user,I can register for the application through facebook	2	Low	VaishnaviG
Sprint-1		USN-4	As a user, I can register for the application through gmail	2	Medium	Thamarai K
Sprint-1	Login	USN-5	As a user,I can log into the application by entering email& password	1	High	Prabha R
Sprint-3	Dashboard	USN-6	As a user I can view the expenditure details and can new expense on the dashboard	3	High	Prabha R
Sprint-3	Limits	USN-7	As a user I can set my monthly expense limit and I will and email	4	High	Vaishnavi G

			when the expense exceeds limit			
Sprint-4	Reports	USN-8	As a user I can view the expenditure details in the graphical form.	5	Medium	Sangeetha K

## 6.2 Sprint Delivery Schedule Agile

sprints typically last from one week to one month. The goal of sprints is to put pressure on teams to innovate and deliver more quickly, hence the shorter the sprint, the better.

Sprints	Total Story Points	Duration	Sprint Start Date	Sprint End Date(planned)	Story Points Completed(as on planned end date)	Sprint Release Date(Actual)
Sprint -1	20	6 days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 days	31 Oct 2022	05 Nov 2022	20	31 Oct 2022
Sprint-3	20	6 days	07 Nov 2022	12 Nov 2022	20	07 Nov 2022
Sprint-4	20	6 days	14 Nov 2022	19 Nov 2022	20	14 Nov 2022

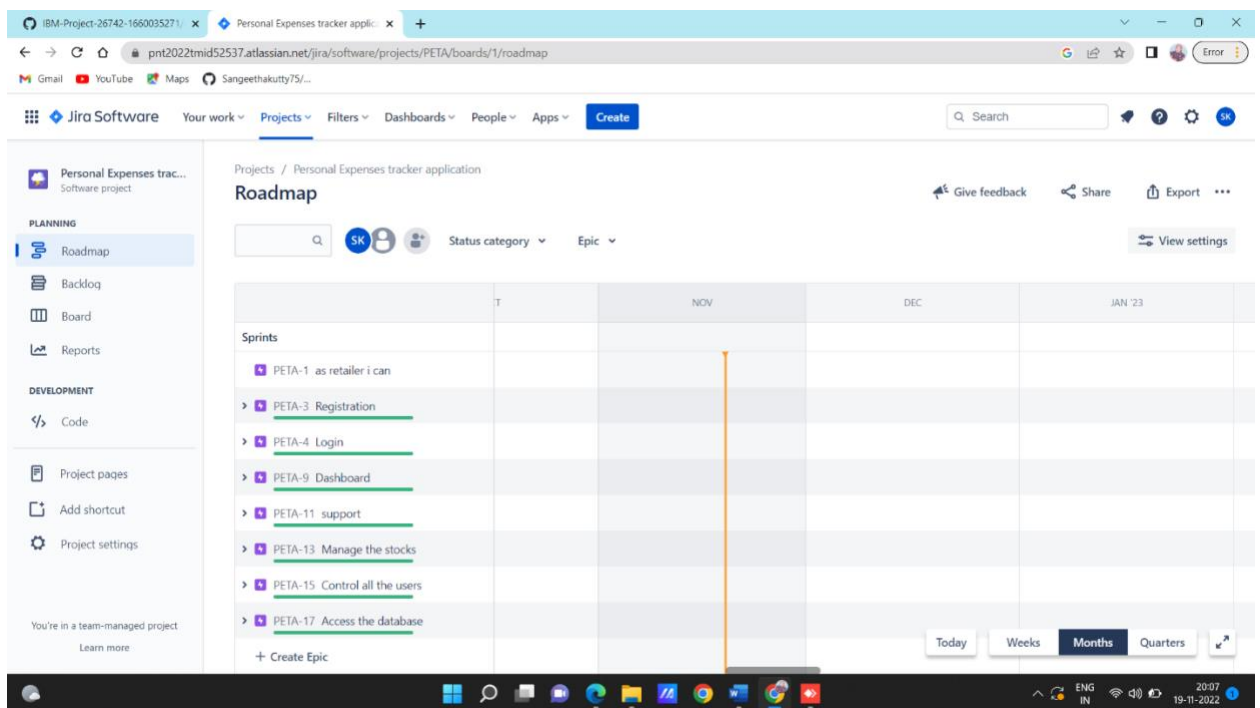
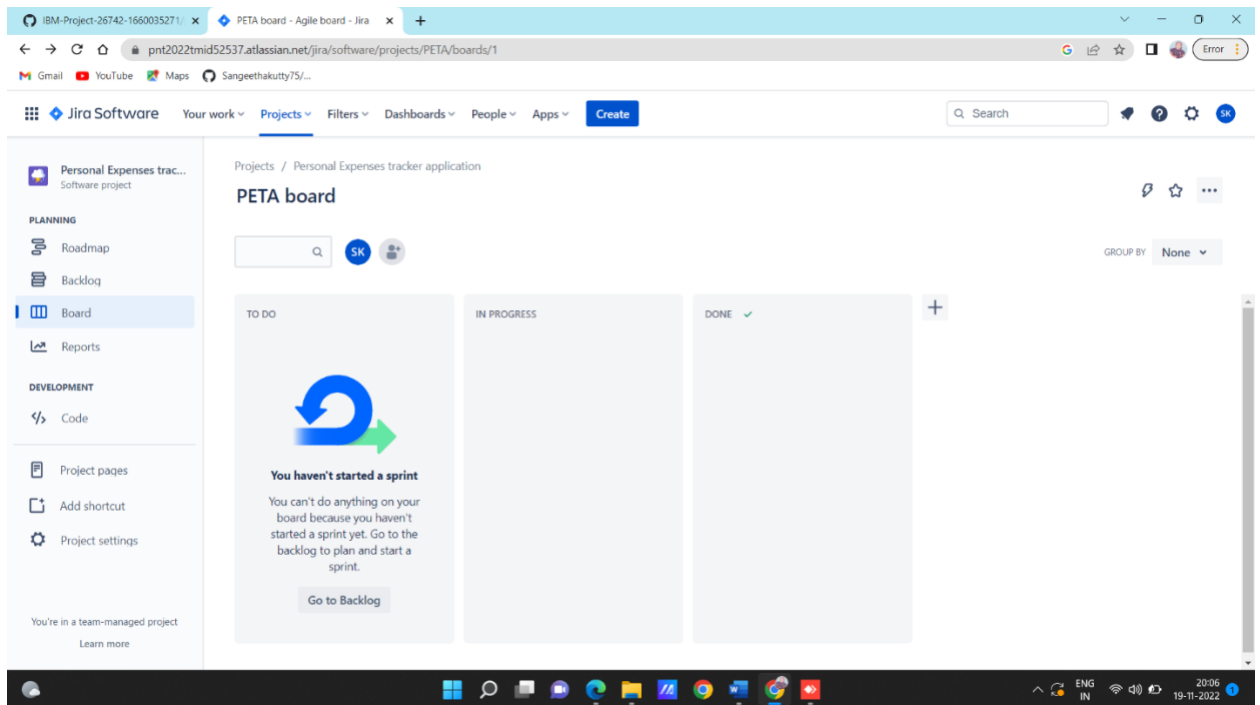
## 6.3 Report for JIRA

The screenshot shows the Jira Software interface for the 'Personal Expenses tracker application'. The left sidebar contains navigation options: PLANNING (Roadmap, Backlog, Board, Reports), DEVELOPMENT (Code), Project pages, Add shortcut, and Project settings. The main area displays the 'Backlog' for 'PETA Sprint 1' and 'PETA Sprint 2'. PETA Sprint 1 has 6 issues, all marked as 'DONE'. PETA Sprint 2 has 1 issue, also marked as 'DONE'. The issues are listed with their IDs, descriptions, and labels.

Sprint	Issue ID	Description	Label	Status
PETA Sprint 1	PETA-2	As a customer for the application by entering my email,password and confirm password	REGISTRATION	DONE
	PETA-5	As a customer I will receive conformation email once I have register for the application	REGISTRATION	DONE
	PETA-6	As a customer I can register the application through facebook,gmail	REGISTRATION	DONE
	PETA-7	As a customer I can register for the application through gmail,facebook	REGISTRATION	DONE
	PETA-8	As a customer I can log into a application by entering user name and password	LOGIN	DONE
	PETA-10	As a customer I can track data of sales of products and inventory levels	DASHBOARD	DONE
PETA Sprint 2	PETA-12	As a executive I provide answers for the queries asked by customer	SUPPORT	DONE

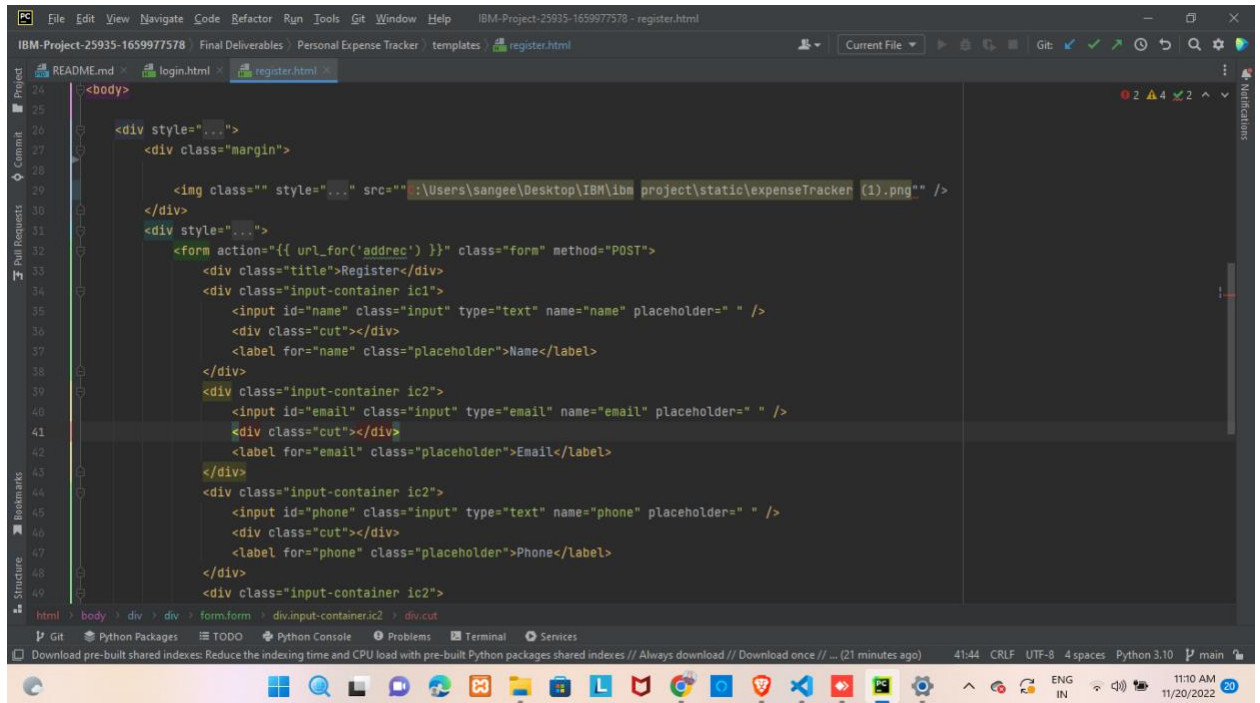
The screenshot shows the Jira Software interface for the 'Personal Expenses tracker application'. The left sidebar contains navigation options: PLANNING (Roadmap, Backlog, Board, Reports), DEVELOPMENT (Code), Project pages, Add shortcut, and Project settings. The main area displays the 'Backlog' for 'PETA Sprint 2' and 'PETA Sprint 3'. PETA Sprint 2 has 1 issue, marked as 'DONE'. PETA Sprint 3 has 3 issues, all marked as 'DONE'. The issues are listed with their IDs, descriptions, and labels.

Sprint	Issue ID	Description	Label	Status
PETA Sprint 2	PETA-12	As a executive I provide answers for the queries asked by customer	SUPPORT	DONE
PETA Sprint 3	PETA-14	As a executive I provide answers for the queries asked by the retailer	MANAGE THE STOCKS	DONE
	PETA-16	As a admin I manage the stocks y adding,shipping and storing the stocks in the storage units	CONTROL ALL THE USERS	DONE
	PETA-18	As a admin I can control all the retails by performing basic CRUD operations	ACCESS THE DATABASE	DONE



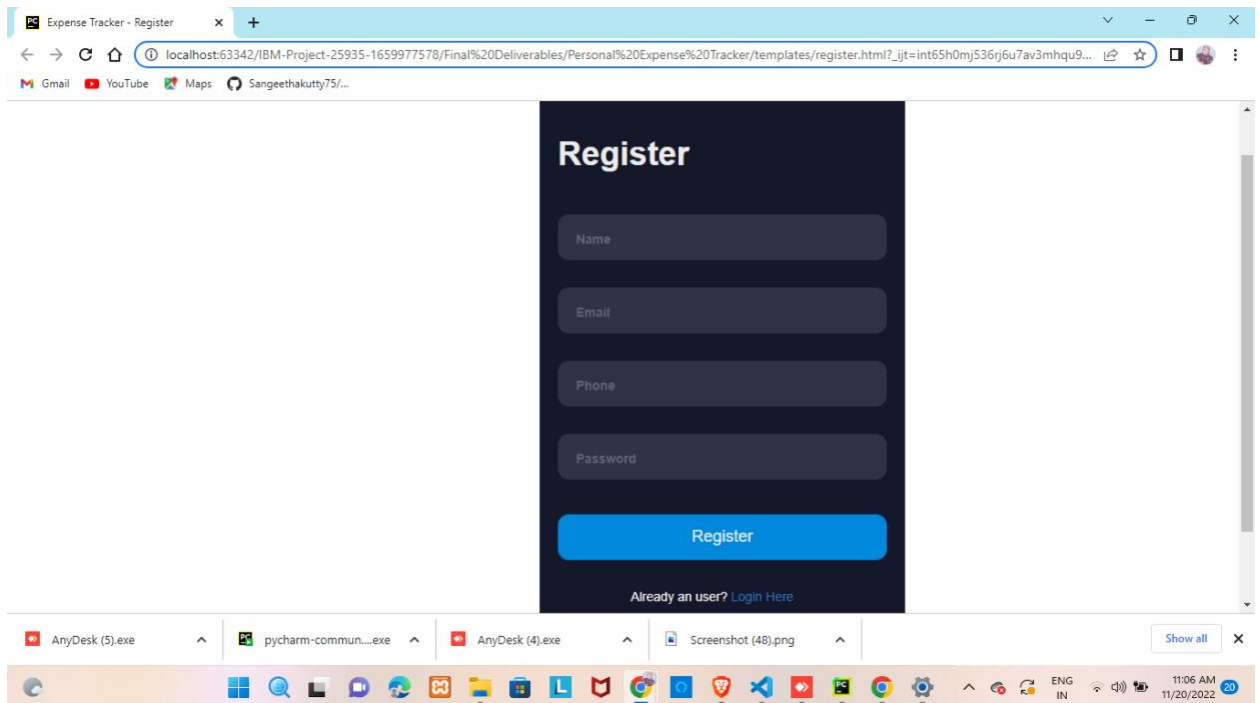
**7 coding and solutioning (Explain the features added in project along with code)**

## 7.1 Register page



The screenshot shows the PyCharm IDE with the file `register.html` open. The code is an HTML template for a registration form. It includes a header image, a form with fields for Name, Email, and Phone, and a Register button. The form is styled with Bootstrap classes.

```
<body>
<div style="background-color: #f8d7da; padding: 10px; text-align: center;">
  <div class="margin">
    
  </div>
  <div style="background-color: #fff; padding: 10px; border: 1px solid #ccc;">
    <div class="title">Register</div>
    <div class="input-container ic1">
      <input id="name" class="input" type="text" name="name" placeholder=" " />
      <div class="cut"></div>
      <label for="name" class="placeholder">Name</label>
    </div>
    <div class="input-container ic2">
      <input id="email" class="input" type="email" name="email" placeholder=" " />
      <div class="cut"></div>
      <label for="email" class="placeholder">Email</label>
    </div>
    <div class="input-container ic2">
      <input id="phone" class="input" type="text" name="phone" placeholder=" " />
      <div class="cut"></div>
      <label for="phone" class="placeholder">Phone</label>
    </div>
    <div class="input-container ic2">
      <input id="password" class="input" type="password" name="password" placeholder=" " />
      <div class="cut"></div>
      <label for="password" class="placeholder">Password</label>
    </div>
    <div class="input-container ic2">
      <input id="confirm-password" class="input" type="password" name="confirm-password" placeholder=" " />
      <div class="cut"></div>
      <label for="confirm-password" class="placeholder">Confirm Password</label>
    </div>
    <div class="button">
      <button type="button" class="btn btn-primary">Register</button>
    </div>
  </div>
</div>
```



## Login page



```
IBM-Project-25935-1659977578 - AddExpense.html
IBM-Project-25935-1659977578 Final Deliverables Personal Expense Tracker templates AddExpense.html
AddExpense.html
<html>
  <head>
    <title>Add Expense</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>
    <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
    <link rel="stylesheet" href="../static/AddExpense.css" />
  </head>
  <body>
    <nav class="navbar navbar-default" style="background-color: #f4f4f4;">
      <div class="container-fluid">
        <div class="navbar-header">
          <a class="navbar-brand" href="#" style="color: #337ab7;">Expense Tracker</a>
        </div>
        <ul class="nav navbar-nav">
          <li><a href="/home" style="color: #337ab7;">Home</a></li>
          <li class="active"><a href="/addExpense" style="color: #337ab7;">Add</a></li>
          <li><a href="/history" style="color: #337ab7;">History</a></li>
          <li><a href="/limit" style="color: #337ab7;">Limit</a></li>
        </ul>
      </div>
    </nav>
  </body>
</html>
```

Expense Tracker - Login x Add Expense x

localhost:63342/IBM-Project-25935-1659977578/Final%20Deliverables/Personal%20Expense%20Tracker/templates/AddExpense.html?\_ijt=5o20dpk3ucq...

## Add Expense

Note: Add accurate expense details

Date

mm/dd/yyyy

Expense Name

Expense Amount

Expense Category

Food

Payment Method

Cash

Submit

Limit





```
21 <li><a href="/addExpense">Add</a></li>
22 <li><a href="/history">History</a></li>
23 <li><a href="/limit">Limit</a></li>
24 <li><a href="/today">Report</a></li>
25
26 <li><a href="/logout">Logout</a></li>
27 </ul>
28 </div>
29 </nav>
30
31 <div class="container">
32   <table class="table table-dark">
33     <thead>
34       <tr>
35         <td scope="col">Date</td>
36         <td scope="col">Expense Name</td>
37         <td scope="col">Expense Amount</td>
38         <td scope="col">Expense Category</td>
39         <td scope="col">Payment Method</td>
40       </tr>
41     </thead>
42     <tbody>
43       <tr>
44         <td colspan="5">{% for row in students %}
45         <tr>
46           <td scope="row">{{row["DATE"]}}</td>
47           <td {{ row["NAME"]}}</td>
48           <td {{row["AMOUNT"]}}</td>
49           <td {{row["CATEGORY"]}}</td>
50           <td {{row["PAYMENTMETHOD"]}}</td>
51           <td><a href="/delete/{{row["NAME"]}}">Delete</a></td>
52         </tr>
53       </tbody>
54     </table>
55   </div>
```

```
127.0.0.1 - - [17/Nov/2022 10:54:12] "GET /static/addExpense.css HTTP/1.1" 304 -
127.0.0.1 - - [17/Nov/2022 10:54:14] "GET /login HTTP/1.1" 200 -
127.0.0.1 - - [17/Nov/2022 10:54:14] "GET /static/login.css HTTP/1.1" 200 -
```

Date	Expense Name	Expense Amount	Expense Category	Payment Method
2022-11-15	pizza	400	Food	Cash
2022-11-15	biryani	200	food	cash
2022-11-15	book	500	entertainment	cash
2022-11-14	House Rent	10000	rent	cash
2022-10-15	Bike	40000	emi	debitCard
2022-11-15	chocolate	200	food	cash
2022-11-16	biryani	200	food	cash
2022-11-16	chocolate	200	food	cash
2022-11-16	chocolate	200	food	cash
2022-11-16	biryani	200	food	cash
2022-11-16	book	200	entertainment	cash
2022-11-17	chocolate	500	food	cash

## REPORT

The screenshot shows the Visual Studio Code editor with the file explorer on the left displaying the project structure. The file `today.html` is selected. The main editor area shows the HTML code for `today.html`, which includes a navigation bar with links for Home, Add, History, Limit, and a dropdown menu for Today, Month, and Year. The code is as follows:

```
19 <body>
20 <nav class="navbar sticky-top navbar-expand-lg navbar-light" style="background-color: #e3f2fd;">
21   <a class="navbar-brand" href="#">EXPENSE TRACKER</a>
22   <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent"
23     <span class="navbar-toggler-icon"></span>
24 </button>
25
26   <div class="collapse navbar-collapse" id="navbarSupportedContent">
27     <ul class="navbar-nav mr-auto">
28       <li class="nav-item active">
29         <a class="nav-link" href="/home">Home <span class="sr-only">(current)</span></a>
30       </li>
31       <li class="nav-item">
32         <a class="nav-link" href="/add">Add</a>
33       </li>
34       <li class="nav-item">
35         <a class="nav-link" href="/display">History</a>
36       </li>
37       <li class="nav-item">
38         <a class="nav-link" href="/limit">LIMIT</a>
39       </li>
40       <li class="nav-item dropdown">
41         <a class="nav-link dropdown-toggle" href="#" id="navbardropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-
42           </a>
43
44         <div class="dropdown-menu" aria-labelledby="navbardropdown">
45           <a class="dropdown-item" href="/today">TODAY</a>
46           <a class="dropdown-item" href="/month">Month</a>
47           <a class="dropdown-item" href="/year">Year</a>
48         </div>
49       </li>
50 </ul>
51 </div>
```

The terminal at the bottom shows the following output:

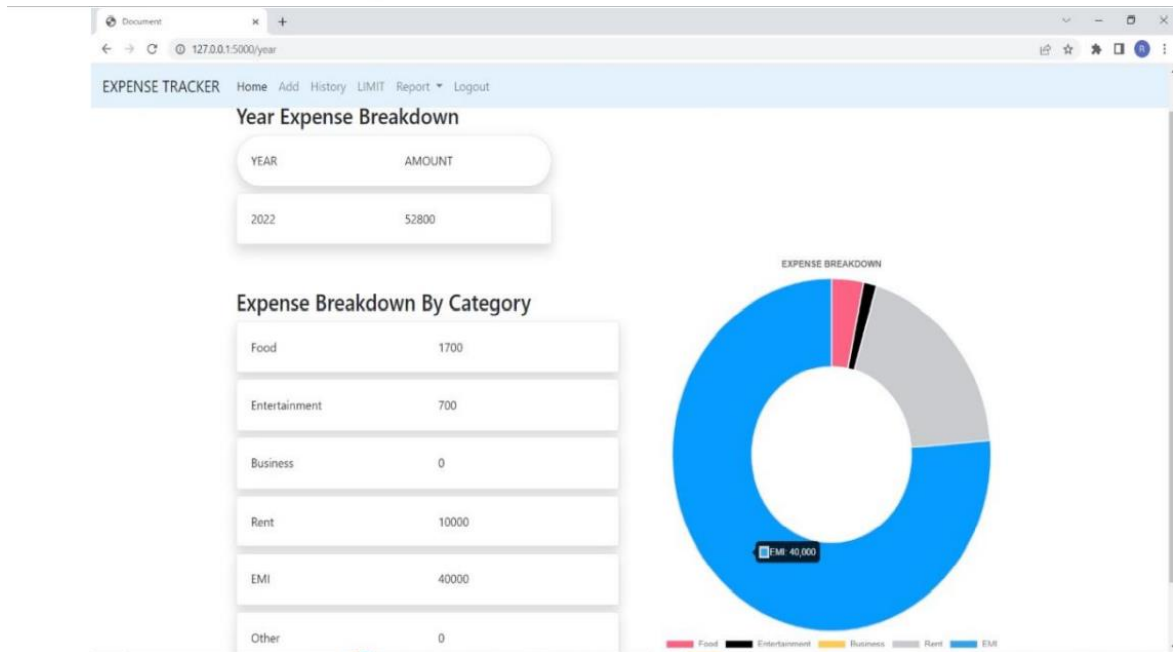
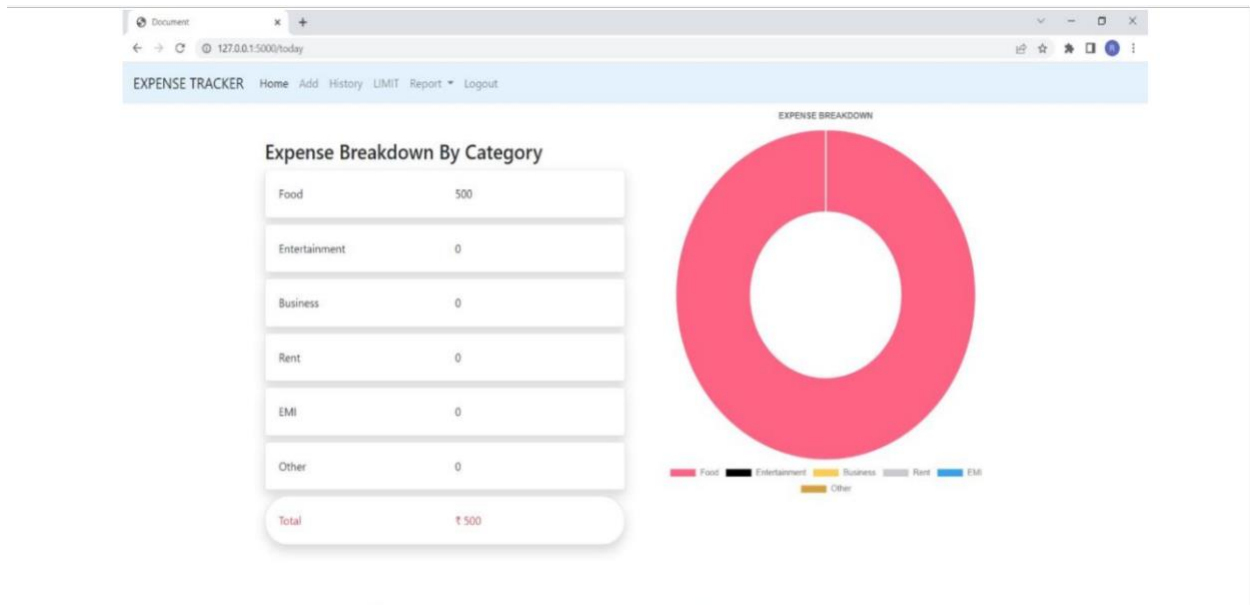
```
127.0.0.1 - - [17/Nov/2022 11:00:40] "GET /static/history.css HTTP/1.1" 304 -
127.0.0.1 - - [17/Nov/2022 11:02:05] "GET /today HTTP/1.1" 200 -
```

The screenshot shows the Visual Studio Code editor with the file explorer on the left displaying the project structure. The file `month.html` is selected. The main editor area shows the HTML code for `month.html`, which is identical to the code in `today.html`. The code is as follows:

```
20 <nav class="navbar sticky-top navbar-expand-lg navbar-light" style="background-color: #e3f2fd;">
21   <a class="navbar-brand" href="#">EXPENSE TRACKER</a>
22   <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent"
23     <span class="navbar-toggler-icon"></span>
24 </button>
25
26   <div class="collapse navbar-collapse" id="navbarSupportedContent">
27     <ul class="navbar-nav mr-auto">
28       <li class="nav-item active">
29         <a class="nav-link" href="/home">Home <span class="sr-only">(current)</span></a>
30       </li>
31       <li class="nav-item">
32         <a class="nav-link" href="/add">Add</a>
33       </li>
34       <li class="nav-item">
35         <a class="nav-link" href="/display">History</a>
36       </li>
37       <li class="nav-item">
38         <a class="nav-link" href="/limit">LIMIT</a>
39       </li>
40       <li class="nav-item dropdown">
41         <a class="nav-link dropdown-toggle" href="#" id="navbardropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-
42           </a>
43
44         <div class="dropdown-menu" aria-labelledby="navbardropdown">
45           <a class="dropdown-item" href="/today">TODAY</a>
46           <a class="dropdown-item" href="/month">Month</a>
47           <a class="dropdown-item" href="/year">Year</a>
48         </div>
49       </li>
50 </ul>
51 </div>
```

The terminal at the bottom shows the following output:

```
127.0.0.1 - - [17/Nov/2022 11:00:40] "GET /static/history.css HTTP/1.1" 304 -
127.0.0.1 - - [17/Nov/2022 11:02:05] "GET /today HTTP/1.1" 200 -
```



## 7.2 Database schema (if applicable)

The top screenshot shows the IBM Db2 on Cloud interface with the 'Schemas' and 'Tables' panels. The 'Schemas' panel displays a table with columns 'Name', 'Type', and 'Tables'. It contains one entry: 'DKH61031' of type 'User' with 3 tables. The 'Tables' panel displays a table with columns 'Name', 'Schema', and 'Properties'. It contains three entries: 'EXPENSE', 'LIMIT', and 'USERS', all under the 'DKH61031' schema. The bottom screenshot shows the same interface but with the 'Table definition' panel for the 'USERS' table open. This panel shows the following columns: 'Name', 'Data type', 'Nullable', 'Length', and 'Scale'. The data is as follows:

Name	Data type	Nullable	Length	Scale
USERID	INTEGER	N		0
NAME	VARCHAR	N	255	0
EMAIL	VARCHAR	N	255	0
PHONE	VARCHAR	N	255	0
PASSWORD	VARCHAR	N	255	0

A 'View data' button is located at the bottom of the 'Table definition' panel.

## 8 TESTING

### 8.1 Test Cases

Test cases are a set of actions performed on a system to determine if it satisfies software requirements and functions correctly as it claimed to perform.

## 8.2 User Acceptance Testing

Before deploying the software application to a production environment the end user or client performs a type of testing known as user acceptance testing, or UAT to ensure whether the software functionalities serve the purpose of development.

### 1. Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the [PERSONAL EXPENSE TRACKER APPLICATION] project at the time of the release to User Acceptance Testing (UAT).

### 2. Defect Analysis

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	10	0	0	10
Client Application	50	0	0	50
Security	1	0	0	1
Outsource Shipping	3	0	0	3

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	3	1	2	16
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1

Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	24	13	12	25	74

### 3. Test Case Analysis

This report shows the number of test cases that have passed, failed, and untested

Exception Reporting	8	0	0	8
Final Report Output	4	0	0	4
Version Control	2	0	0	2

## 9 RESULTS

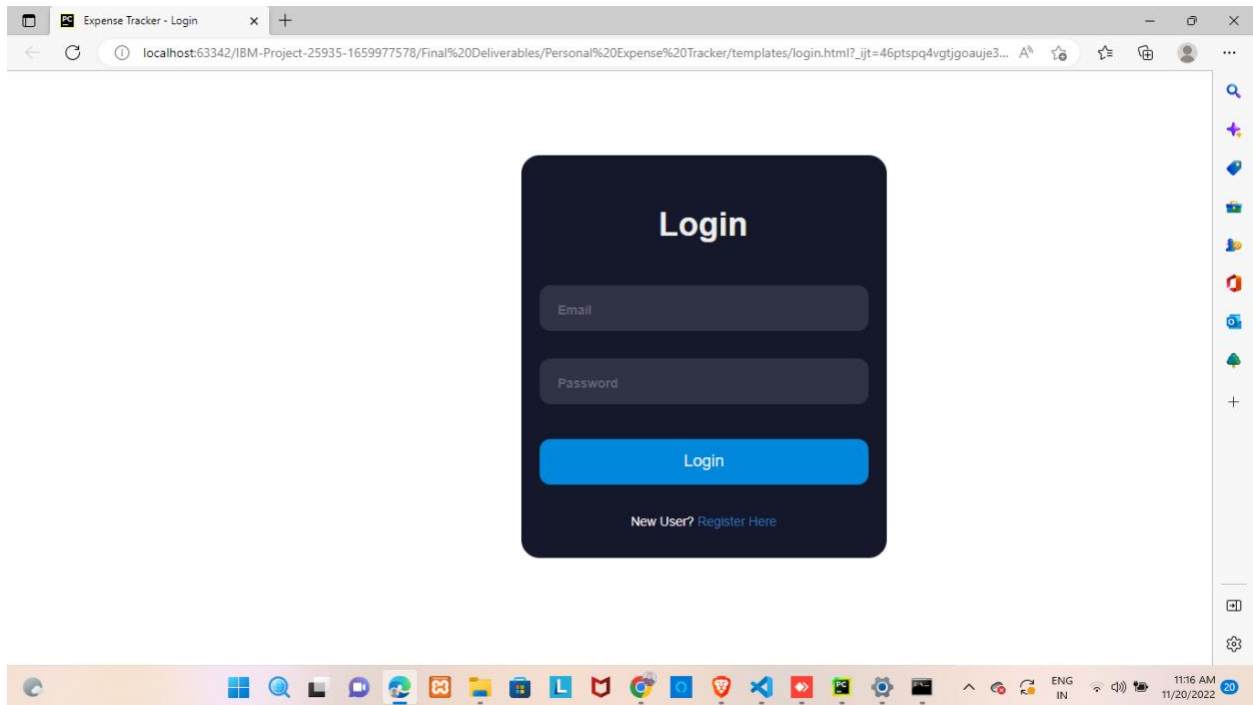
### Register

The screenshot displays a web browser window with the title 'Expense Tracker - Register'. The address bar shows the URL: `localhost:63342/IBM-Project-25935-1659977578/Final%20Deliverables/Personal%20Expense%20Tracker/templates/register.html?_ijt=int65h0mj536rj6u7av3mhqu9...`. The main content area features a dark-themed 'Register' form with the following elements:

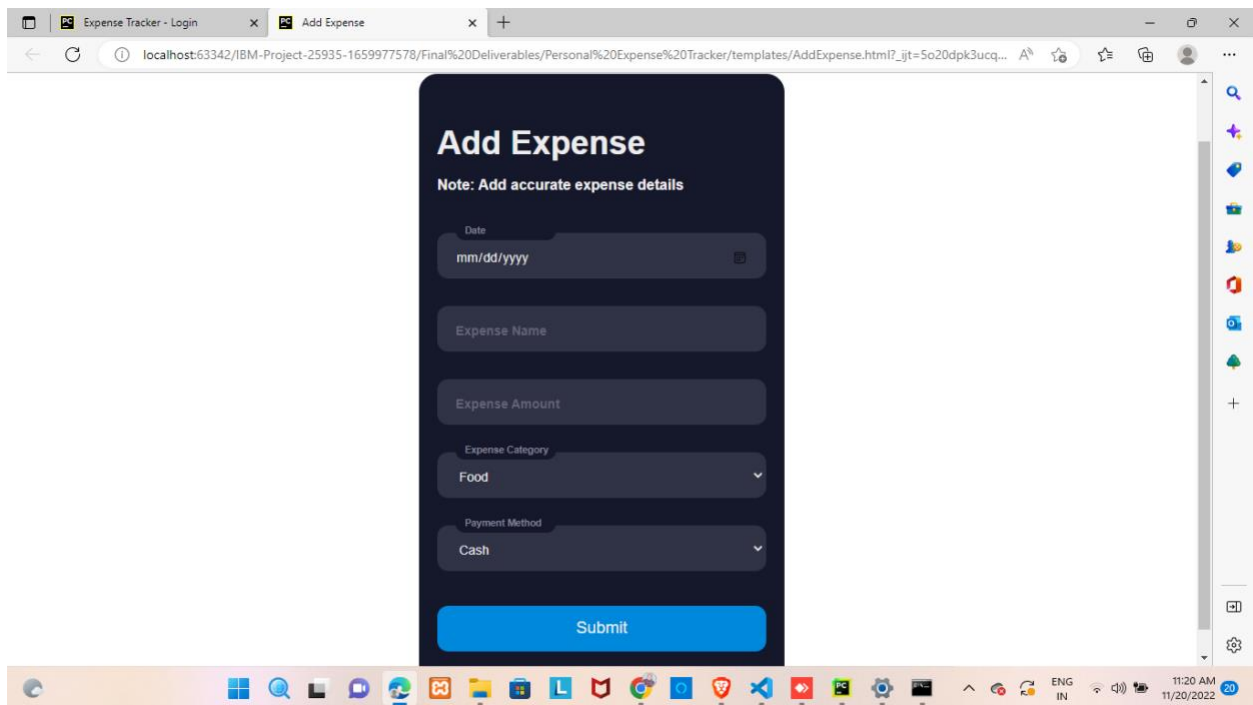
- Name**: Text input field
- Email**: Text input field
- Phone**: Text input field
- Password**: Text input field
- Register**: A prominent blue button
- Already an user? Login Here**: A link below the Register button

The Windows taskbar at the bottom shows several open applications: AnyDesk (5).exe, pycharm-commun...exe, AnyDesk (4).exe, and Screenshot (48).png. The system tray on the right indicates the date and time as 11:06 AM on 11/20/2022.

### Login

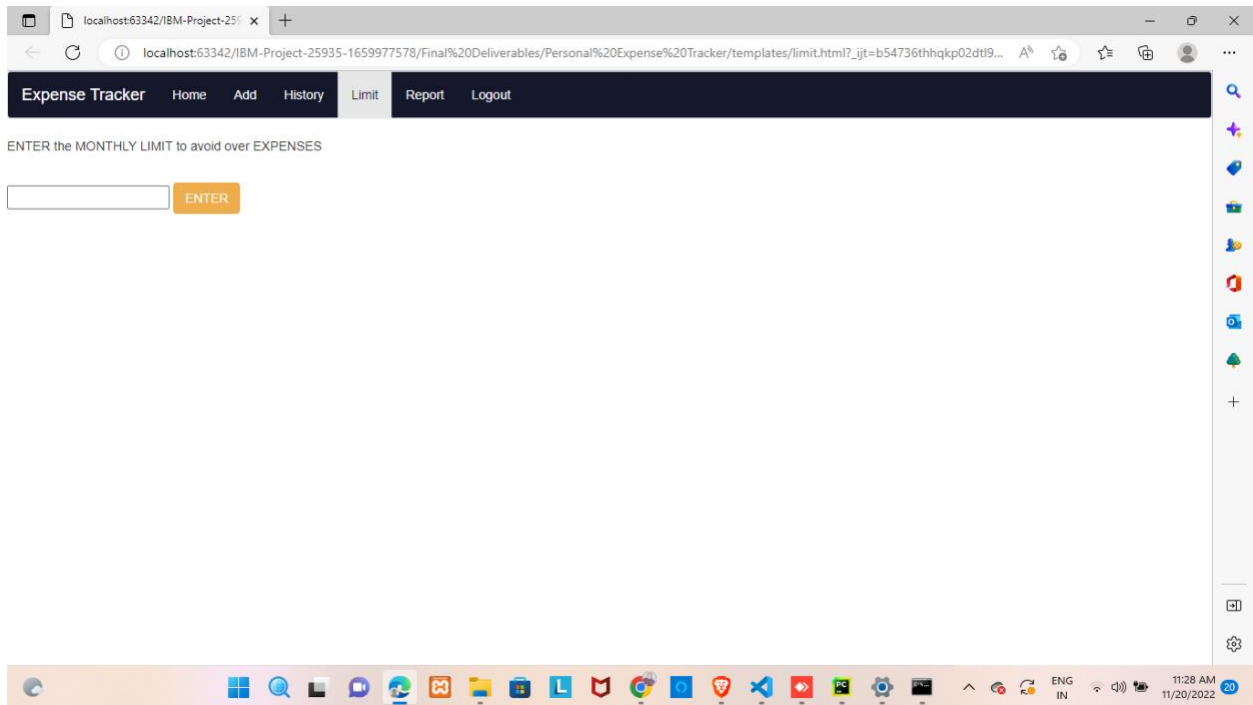


## Add Expenses



## Limit



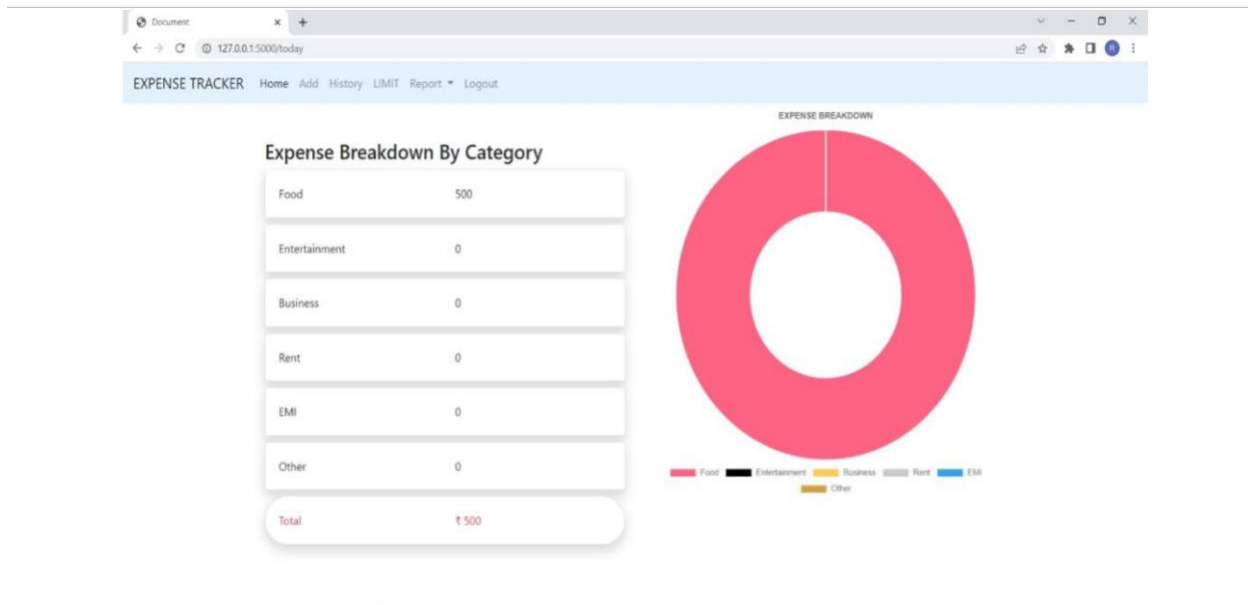


## History

The screenshot shows the "History" page of the Expense Tracker application. The browser window title is "127.0.0.1:5000/history". The application header is the same as in the previous screenshot. The main content area displays a table with the following data:

Date	Expense Name	Expense Amount	Expense Category	Payment Method
2022-11-15	pizza	400	Food	Cash
2022-11-15	biriyani	200	food	cash
2022-11-15	book	500	entertainment	cash
2022-11-14	House Rent	10000	rent	cash
2022-10-15	Bike	40000	emi	debitCard
2022-11-15	chocolate	200	food	cash
2022-11-16	biriyani	200	food	cash
2022-11-16	chocolate	200	food	cash
2022-11-16	chocolate	200	food	cash
2022-11-16	biriyani	200	food	cash
2022-11-16	book	200	entertainment	cash
2022-11-17	chocolate	500	food	cash

## Report



## 10 ADVANTAGES & DISADVANTAGES

### Advantages:

1. You have no control over your money If you don't check your spending and create a budget, you will have no control whatsoever on your money. Instead, money will control you, and you will either have perpetual lack of funds or you will end up steeped in debt. A money manager app helps you decide between short-term and long-term spending .
- 2.You have no financial goals If you are spending money frivolously, you will not have money to set financial goals. However, when you have a daily expense manager, you will be able to work with limited resources and use your money in a wise manner so that you can create financial goals and ensure you meet them.
3. You are unaware what is happening with your money If you are clueless about how much is your inflow and how much you are spending, you will not know at the end of the month what happened to your money. An expense tracker helps you figure out what is happening to your money, and whether you can afford something you want.
4. You spend and save in a haphazard manner If you don't have great financial management skills, you will not know how to categorize your expenses. However, tracking your expenses and budgeting them will help you become aware of how much you have to allocate to each expense category, and if you are short, you will be able to make adjustments with ease.

5. You have no clue about making your money work for you, In this day and age, when expenses are going through the roof, it has become crucial that you learn to make your money work for you so that you can create a nest egg for the future.

6. You don't have funds for emergencies Remember, emergencies come when you least expect. Hence, if you don't have money stashed away for a rainy day, you will end up borrowing from family and friends. This way you could get into debt that will be difficult to pay back due to your poor money management skills Disadvantages.

### **Disadvantages:**

1. Your information is less secure, and probably being used and sold. If the service is free, then the product is you. Mint.com, like other financial apps, is a free service. They have to pay their bills somehow, so regardless of what their privacy policy may or may not say, just assume that your spending history and trends are going to be recorded and analyzed, by someone, somewhere.

2. Now, you shouldn't have to worry about credit card fraud or identity theft, these companies are large enough and secure enough that you'll never have to worry about something like that. Just recognize that your information, most likely anonymous, will be used and potentially even sold.

3. Personally, I have no problem with that, but if you do, then make sure you avoid these types of services. Automating everything to do with your finances can make you financially lazy. If your bills are paid automatically and your finances are track automatically, then what is there left for you to do? Not a lot, to be honest. So you might stop caring about what you're spending and where your money is going. Eventually you may look at your Mint data and realize that you've blown your budget over the last two months, but by then it is too late. So if you do choose to use this program, ensure that you are also being diligent in checking in on your finances. Set up a weekly or biweekly check for yourself to go through your finances and hit on all the important points.

## **11 CONCLUSION**

After making this application we assure that this application will help its users to manage the cost of their daily expenditure. It will guide them and aware them about there daily expenses. It will prove to be helpful for the people who are frustrated with their daily budget management, irritated because of amount of expenses and wishes to manage money and to preserve the record of their daily cost which may be useful to change their way of spending money. In short, this application will help its users to overcome the wastage of money.

## **12 FUTURE SCOPE**

The further enhancement that are planned for developing the application to be user friendly and further features like login with gmail or social media accounts using facebook or twitter and also using SSO login so that it is helpful for users to get into platform easily.

## **13 APPENDIX**

GitHub & Project Demo Link

GitHub Link:

<https://github.com/IBM-EPBL/IBM-Project-26742-1660035271>

Demo Link:

[https://drive.google.com/file/d/1ikICAW\\_C59Ad0hI4LBbMR2gJv41PM5rr/view?usp=share\\_link](https://drive.google.com/file/d/1ikICAW_C59Ad0hI4LBbMR2gJv41PM5rr/view?usp=share_link)