

Personal Expense Tracker Application

PROJECT REPORT

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

INTRODUCTION

1.1 Project Overview:

Personal Expense Tracker is a 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. It will also manage records in systematic way and user can access the stored data conveniently. We have tried to design the project in such way that user may not have any difficulty in using this application without much effort. This software can be really used by end user who has stable internet . The language that we use to develop this system is flask using python and IBM Db2 for database.

1.2 Purpose:

Expense Tracker is an Application which can help the user to keep track of their Expenses. Nowadays, people can do various things by using a mobile and so, they can also use it for Budgeting and planning their expense in the mobile instead of doing it manually. For this purpose ,an application can be developed to satisfy the needs of the customer. This application can help the user to keep track of their expenses in an organized way and to maintain a proper balance between expenditure and savings.

The idea of developing this project for user convenience. Because whenever they make expenses immediately, they add in the application. Some of the concerns maintaining a personal expense is a BIG problem, in daily expenses many times we don't know where the money goes. Some of the conventional methods used to tackle this problem in normal circumstances are like making use of a sticky notes by common users, Proficient people deals with this kind of problems by using spreadsheets to record expense and using a ledger to maintains the large amounts data by especially by expert people. We believe a handy design and a handy mobile application which handles these troubles. Such that app is capable of recording the expenditure

and giving broad view with easy to use the user interface and this application is intelligent enough to shows the history of expenses.

LITERATURE SURVEY

2.1 Existing Problem:

(i)Miriam Thomas et al., proposed an Expense Tracker System which works based on the Least Square Algorithm which is a statistical procedure to find the best fit for a data points by minimizing offsets.In this,they have proposed an application which allows the user to maintain a Digital Automated Diary.The User is required to register on the system to get an user id and login password which they will use to keep track of their expenses.

(ii)Gomathy et al., proposed a system which has an Expense Tracker with few more features like Weekly Budget planner to keep track of expenses,UPI linkup to keep track of online transactions and an Automated message alert will be generated when the user crosses their budget limit,Wishlist,Rewards,Weekly and Monthly Analysis in the form of a piechart.

(iii)Aman Garg et al., has proposed a system which has eliminated sticky notes and spreadsheets that cause confusion and data inconsistency problems.Their System has features like Categorization of expenditures and Report generation and Comparison of prices.

2.2 References:

- (i) International Journal for Research in Applied Science & Engineering Technology (IJRASET) Expense Tracker
Aman Garg , Mukul Goel , Sagar Mittal , Mr. Shekhar Singh
- (ii) EXPENDITURE MANAGEMENT SYSTEM Dr.
C.K.Gomathy, G. Nikhitha , H. Sri Lasya Dr. V. Geetha
<https://www.researchgate.net/publication/360620084>

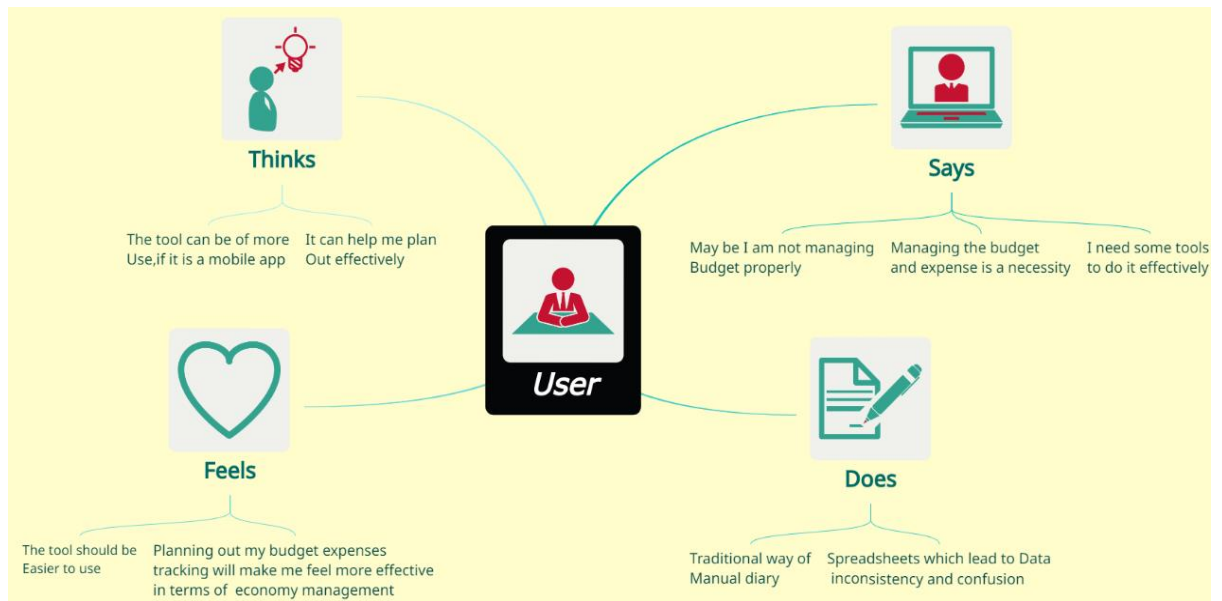
- (iii) <https://medium.com/@rajotiya.ravi2/case-study-of-expense-tracking-app-get-daily-alerts-of-your-expense-a0561526973>
- (iv) https://ijirt.org/master/publishedpaper/IJIRT150860_PAPER.pdf

2.3 Problem Statements:

- (i) The User Needs to manage their Budget and keep track of their expenses in an more effective manner.
- (ii) The User may use Traditional way of manual diary, but it will be more time-consuming and confusing for the user
- (iii) The User can also use spreadsheets to do that, but it will lead to more confusion and data inconsistency.
- (iv) An Effective of economy management is needed for the users in form of either mobile or web application.

IDEATION & PROPOSED SOLUTION

3.1 Empathy map canvas:



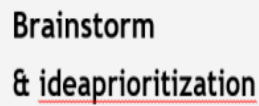
3.2 Ideation & Brainstorming:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving.

Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

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.

Template




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



- [Open article](#)
-



Step-2: Brainstorm, Idea Listing and Grouping



Brainstorm

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

10 minutes

Kavanya N

Day to Day reminder about account balance via mail

Ahna Thaiseem J


If the user spent high, then send mail

Abdul Wassem Wladou K

If they logged in to the web app, we can send some alert

Jayant PS

Sending mail when exceeds the limit



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

Frequent monitoring on balance by user.

If they logged in to the web app, we can send some alert

Sending mail when exceeds the limit

If the user spent high, then send mail

Day to Day reminder about account balance via mail

Sending mail after exceeds the limit is useless


Step-3: Idea Prioritization



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



Importance

If each of these

ideas could get done without any difficulty or cost, which would have the most positive impact?



Feasibility

If the user spent high, then send mail

Day to Day reminder about account balance via mail

If they logged in to the web app, we can send some alert

3.3 Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none">• To digitalize the records of the expenses of the user.• Generally people are not aware of some of the expenses and end up in debt.
2.	Idea / Solution description	<ul style="list-style-type: none">• An application is designed to monitor the income and manage the expenses.• The income and the expense can be represented in graphical manner
3.	Novelty / Uniqueness	<ul style="list-style-type: none">• An alert can be sent to user if the expense is reached the threshold limit.• A notification will be send to the user if the user didn't enter the data for particular period of time
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none">• The user can keep track of the expense and manage the money accordingly.• The users can refer the expense and balance amount anytime they want by their phone.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none">• The user can keep track of the expense and manage the money accordingly.• The users can refer the expense and balance amount anytime they want by their phone.

6.	Scalability of the Solution	<ul style="list-style-type: none"> • Our Application can handle a large number of Users • The scalability can be easily achieved since we using cloud technology.
----	-----------------------------	---

3.4 Proposed Solution fit:

PROBLEM-SOLUTION FIT

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) <ul style="list-style-type: none">• Working Individuals• Students• Budget conscious consumers	6. CUSTOMER CONSTRAINTS <ul style="list-style-type: none">• Internet Access• Device (Smartphone) to access the application• Data Privacy• Cost of existing applications• Trust	5. AVAILABLE SOLUTIONS <ul style="list-style-type: none">• Expense Diary or Excel sheet <p>PROS : Have to make a note daily which helps to be constantly aware</p> <p>CONS : Inconvenient, takes a lot of time</p>							
	2. JOBS-TO-BE-DONE / PROBLEMS <ul style="list-style-type: none">• To keep track of money lent or borrowed• To keep track of daily transactions• Alert when a threshold limit is reached	9. PROBLEM ROOT CAUSE <ul style="list-style-type: none">• Reckless spendings• Indecisive about the finances• Procrastination• Difficult to maintain a note of daily spendings (Traditional methods like diary)	7. BEHAVIOUR <ul style="list-style-type: none">• Make a note of the expenses on a regular basis.• Completely reduce spendings or spend all of the savings• Make use of online tools to interpret monthly expense patterns							
	3. TRIGGERS <ul style="list-style-type: none">• Excessive spending• No money in case of emergency 4. EMOTIONS <table><tr><td>BEFORE</td><td>AFTER</td></tr><tr><td>• Anxious</td><td>• Confident</td></tr><tr><td>• Confused</td><td>• Composed</td></tr><tr><td>• Fear</td><td>• Calm</td></tr></table>	BEFORE	AFTER	• Anxious	• Confident	• Confused	• Composed	• Fear	• Calm	10. YOUR SOLUTION <p>Creating an application to manage the expenses of an individual in an efficient and manageable manner, as compared to traditional methods</p>
BEFORE	AFTER									
• Anxious	• Confident									
• Confused	• Composed									
• Fear	• Calm									

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 Application Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User monthly expense tentative data	Data to be registered in the app
FR-4	User monthly income data	Data to be registered in the app
FR-5	Alert/ Notification	Alert through E-mail Alert through SMS
FR-6	User Budget Plan	Planning and Tracking of user expense vs budget limit

4.2 Non-functional Requirements:

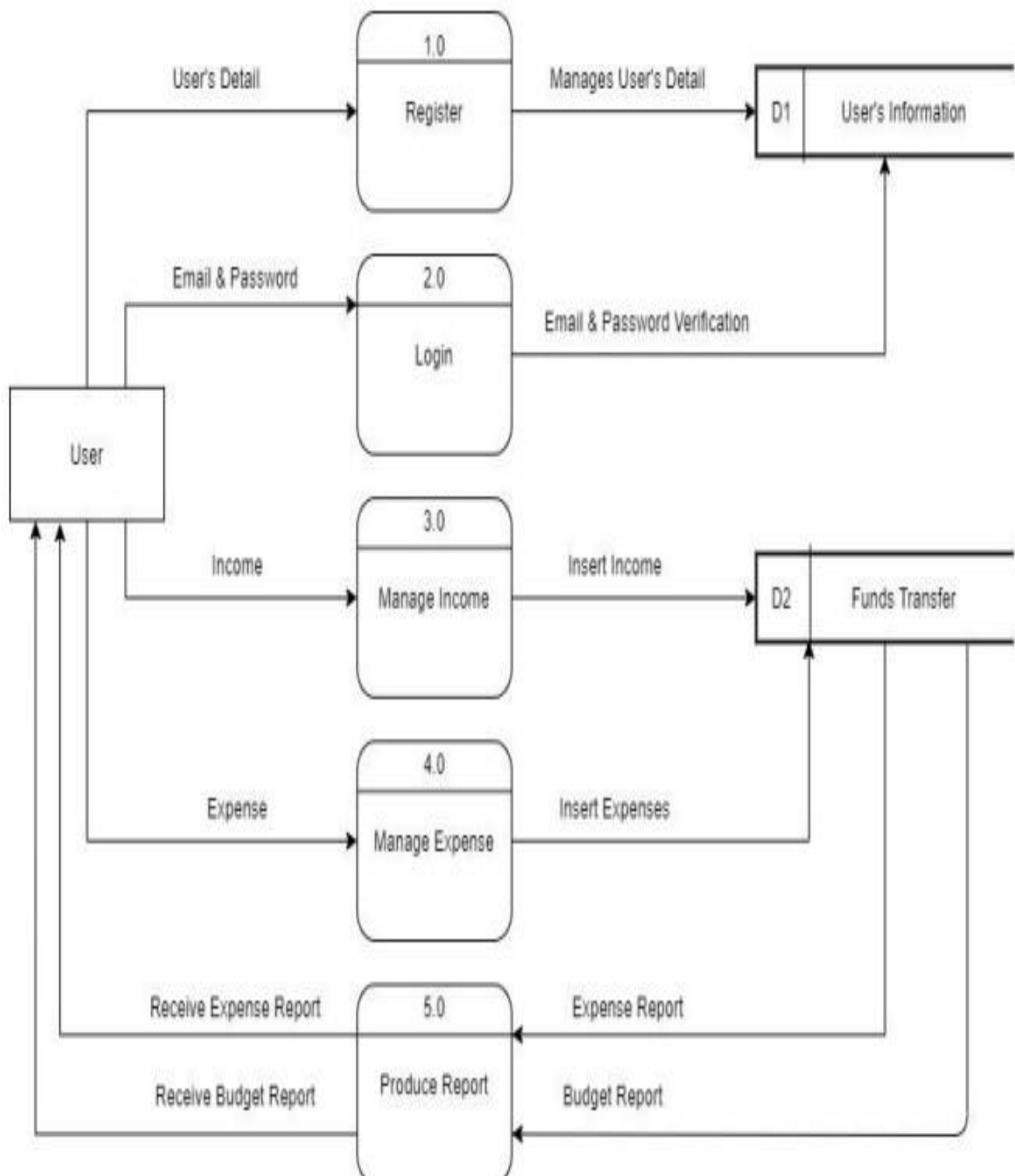
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Effectiveness, efficiency and overall satisfaction of the user while interacting with our application.
NFR-2	Security	Authentication, authorization, encryption of the application.
NFR-3	Reliability	Probability of failure-free operations in a specified environment for a specified time.
NFR-4	Performance	How the application is functioning and how responsive the application is to the end-users.
NFR-5	Availability	Without near 100% availability, application reliability and the user satisfaction will affect the solution.
NFR-6	Scalability	Capacity of the application to handle growth, especially in handling more users.

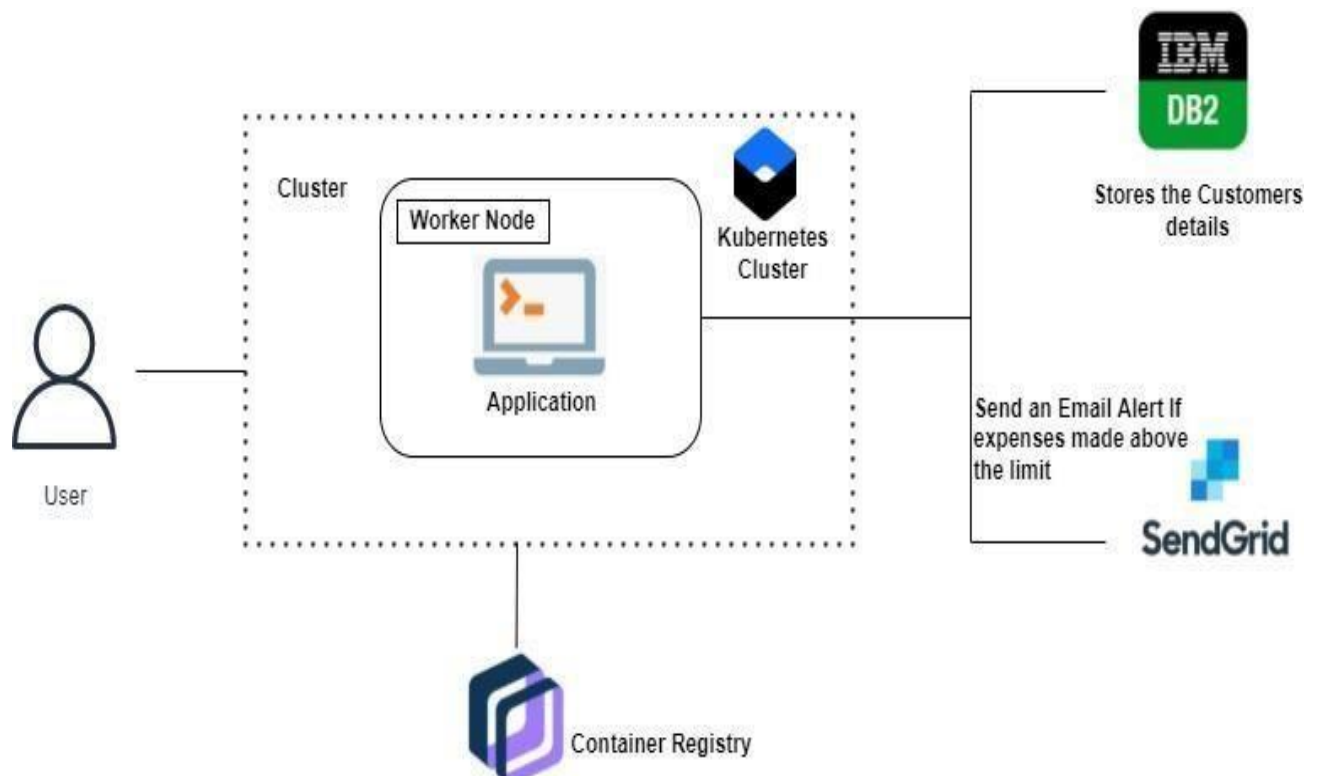
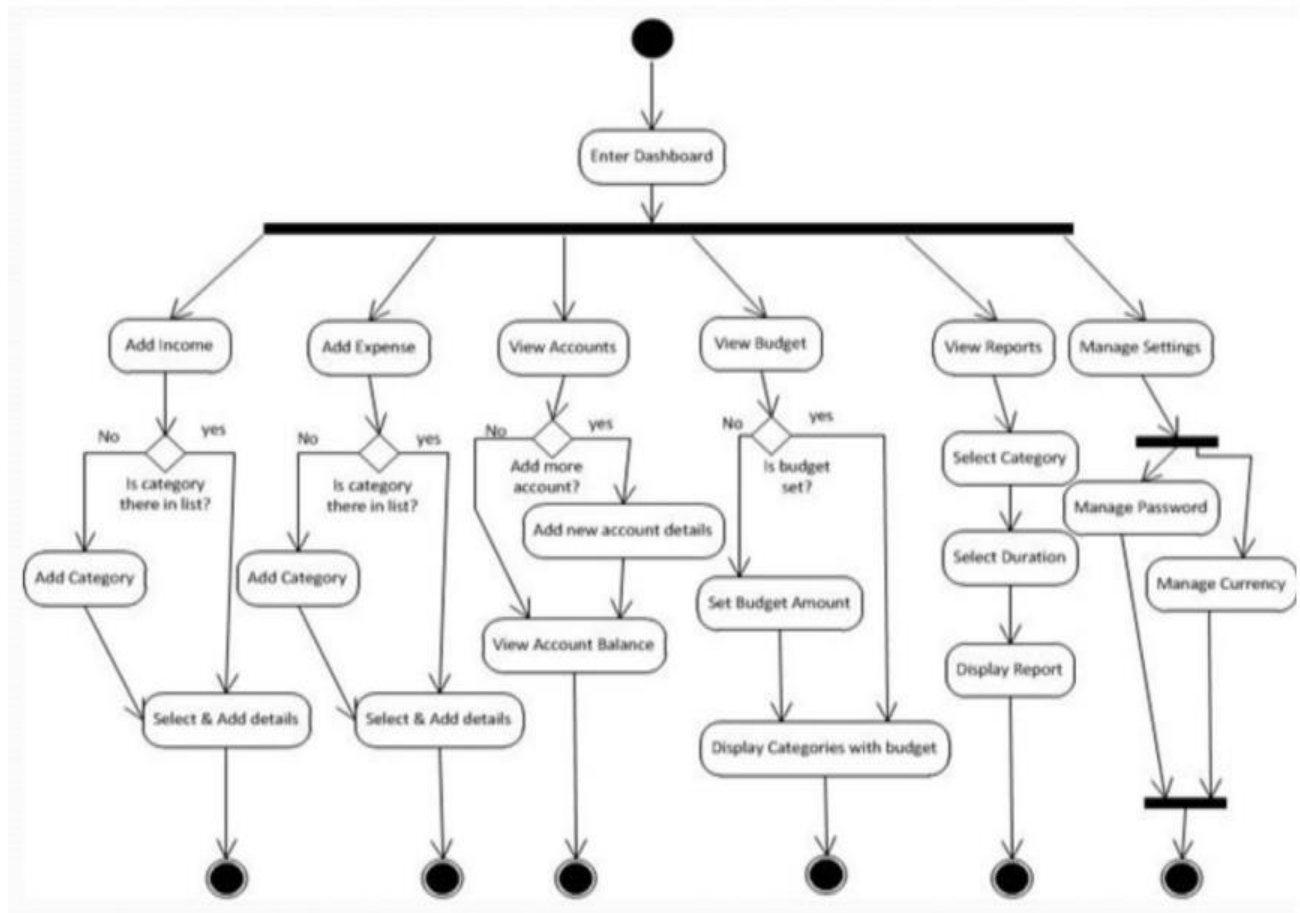
PROJECT DESIGN

5.1 Data Flow Diagram:

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:



5.3 User Stories:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user & web user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	
		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	
		USN- 3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	
	Login	USN - 4	As a user, I can log into the application by entering email & password	I can access the application	High	
	Dashboard	USN - 5	As a user I can enter my income and expenditure details.	I can view my daily expenses	High	
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	
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	

PROJECT PLANNING & SCHEDULING

6.1 SPRINT PLANNING & ESTIMATION:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
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	Balaji M
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Manoj Kumar S
Sprint-1	Login	USN-3	As a user, I can register for the application through Gmail	1	High	Muthu Moorthy M
Sprint-1	Dashboard	USN-4	As a user, I can log into the application by entering email & password	2	High	Tharunkumar M
Sprint-2	Workspace	USN-1	Workspace for personal expense tracking	2	High	Balaji M
Sprint-2	Charts	USN-2	Creating various graphs and statistics of customer's data	1	Medium	Manoj Kumar S
Sprint-2	Connecting to IBM DB2	USN-3	Linking database with dashboard	2	High	Muthu Moorthy M
Sprint-2		USN-4	Making dashboard interactive with JS	2	High	Tharunkumar M
Sprint-3		USN-1	Wrapping up the server side works of frontend	1	Medium	Balaji M
Sprint-3	Watson Assistant	USN-2	Creating Chatbot for expense tracking and for clarifying user's query	1	Medium	Manoj Kumar S
Sprint-3	SendGrid	USN-3	Using SendGrid to send mail to the user about their expenses	1	Low	Muthu Moorthy M
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3		USN-4	Integrating both frontend and backend	2	High	Tharunkumar M
Sprint-4	Docker	USN-1	Creating image of website using docker	2	High	Balaji M
Sprint-4	Cloud Registry	USN-2	Uploading docker image to IBM Cloud registry	2	High	Manoj Kumar S
Sprint-4	Kubernetes	USN-3	Create container using the docker image and hosting the site	2	High	Muthu Moorthy M
Sprint-4	Exposing	USN-4	Exposing IP/Ports for the site	2	High	Tharunkumar M

6.2 Sprint Delivery:

Sprint	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	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

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \text{Sprint Duration} / \text{Velocity} = 20/6 = 3.33$$

6.3 Report from JIRA:

The screenshot displays the Jira Software interface for a project named 'Personal Expense Tracker'. The main view is the 'PET Sprint 1' board, which is a Kanban-style board. The board is divided into three columns: 'TO DO', 'IN PROGRESS 2 ISSUES', and 'DONE 1 ISSUE'. The 'IN PROGRESS' column contains two issues: 'Registration' (PET-1) and 'Login' (PET-2). The 'DONE' column contains one issue: 'Dashboard' (PET-3). The interface includes a sidebar with navigation options like Roadmap, Backlog, Board, Code, Project pages, Add shortcut, and Project settings. A top navigation bar shows 'Jira Software' and various filters. A bottom status bar indicates 'You're in a team-managed project' and a 'Quickstart' button.

Personal Expense Tracker - Agile

balajimurugesan.atlassian.net/jira/software/projects/PET/boards/1/backlog

Jira Software Your work Projects Filters Dashboards People Apps Create

Does your team need more from Jira? Get a free trial of our Standard plan.

Projects / Personal Expense Tracker

Backlog

BM Epic

Insights

PET Sprint 1 6 Nov - 13 Nov (3 issues) Complete sprint

- PET-1 Registration IN PROGRESS
- PET-3 Dashboard + Epic DONE
- PET-2 Login IN PROGRESS

+ Create issue

PET Sprint 2 Add dates (3 issues) Start sprint

- PET-4 Workspace for personal expense tracking TO DO
- PET-5 Creating Data Visualizations for customer TO DO
- PET-6 Connecting to IBM DB2 TO DO

+ Create issue

Quickstart

You're in a team-managed project Learn more

https://balajimurugesan.atlassian.net/browse/PET-3

Personal Expense Tracker - Agile

balajimurugesan.atlassian.net/jira/software/projects/PET/boards/1/backlog

Jira Software Your work Projects Filters Dashboards People Apps Create

Does your team need more from Jira? Get a free trial of our Standard plan.

Projects / Personal Expense Tracker

Backlog

BM Epic

Insights

PET Sprint 3 Add dates (3 issues) Start sprint

- PET-7 Creation of Chatbot using IBM Watson Assistant for clarifying user's query TO DO
- PET-8 Integration of sendgrid to the Application for sending mail to the customer TO DO
- PET-9 Integrating both Front-end and Back-end TO DO

+ Create issue

PET Sprint 4 Add dates (4 issues) Start sprint

- PET-10 Creating image of website using docker TO DO
- PET-11 Uploading docker image to IBM Cloud registry TO DO
- PET-12 Create container using the docker image and hosting the site TO DO
- PET-13 Exposing IP/Ports for the site TO DO

Quickstart

You're in a team-managed project Learn more

CODING & SOLUTIONING

7.1 Feature 1:

Python

- Python is a widely-used, interpreted, object-oriented, and high-level programming language with dynamic semantics, used for general-purpose programming. It's everywhere, and people use numerous Python-powered devices on a daily basis, whether they realize it or not.
- Python was created by [Guido van Rossum](#), and first released on February 20, 1991.
- Python is derived from many other languages, including ABC, Modula-3, C, C++, Algol-68, Smalltalk, and Unix shell and other scripting languages.
- Python is copyrighted. Like Perl, Python source code is now available under the GNU General Public License (GPL)
- It is easy to learn – the time needed to learn Python is shorter than for many other languages; this means that it's possible to start the actual programming fast
- It is easy to use for writing new software – it's often possible to write code faster when using Python.
- It is easy to obtain, install and deploy – Python is free, open and multiplatform; not all languages can boast that.
- Programming skills prepare you for careers in almost any industry and are required if you want to continue to more advanced and higher-paying software development and engineering roles.
- Python is now maintained by a core development team at the institute, although Guido van Rossum still holds a vital role in directing its progress.

7.2 Feature 2:

Flask

- **Flask** is a micro [web framework](#) written in [Python](#). It is classified as a [microframework](#) because it does not require particular tools or libraries.
- It has no [database](#) abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions. However, Flask supports extensions that can add application features as if they were implemented in Flask itself.
- Extensions exist for [object-relational mappers](#), form validation, upload handling, various open authentication technologies and several common framework related tools.

7.3 Database Scheme

IBM Db2

- DB2 is a database product from IBM.
- It is a Relational Database Management System (RDBMS). DB2 is designed to store, analyze and retrieve the data efficiently.
- DB2 product is extended with the support of Object-Oriented features and non-relational structures with XML.
- Provide a massively parallel processing (MPP) architecture Exploits Hive, HBase and Apache Spark concurrently for best-in-class analytic capabilities.
- Provides low latency support for ad-hoc and complex queries, high performance, and federation capabilities Understands dialects from other vendors and various products from Oracle, IBM® Db2® and IBM Netezza® Enables advanced row and column security.

Kubernetes

- **Kubernetes** is also known as '**k8s**'.
- **Kubernetes** is an extensible, portable, and open-source platform designed by **Google** in **2014**.
- It is mainly used to automate the deployment, scaling, and operations of the container based applications across the cluster of nodes.
- Kubernetes helps to manage containerised applications in various types of physical, virtual, and cloud environments.
- Google Kubernetes is a highly flexible container tool to consistently deliver complex applications running on clusters of hundreds to thousands of individual servers ➤ Kubernetes is the Linux kernel which is used for distributed systems.
- It helps you to be abstract the underlying hardware of the nodes(servers) and offers a consistent interface for applications that consume the shared pool of resources.

8 TESTING:

8.1 Test case

- The purpose of testing is to discover errors.
- Testing is the process of trying to discover every conceivable fault or weakness in a work product.
- It provides a way to check the functional of your components, subassemblies, assemblies and/or a finished product
- It is the process of exercising software with the intent of ensuring that the Software system meets its requirements and user expectation and does not fail in an unacceptable manner.
- There are various types of test. Each test type addresses a specific testing requirement

Test case ID	Feature Type	Component	Test Scenario	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
LoginPage_TC_OO1	Functional	Home Page	Verify user is able to see the Login/Signup popup when user clicked on My account button	1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Singup popup displayed or not	http://127.0.0.1:5000/signup	Login/Signup popup should display	Working as expected	Pass	Steps are not clear to follow	yes		customer
LoginPage_TC_OO2	UI	Home Page	Verify the UI elements in Login/Signup popup	1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Singup popup with below UI elements: a.email text box b.password text box c.Login button d.New customer? Create account link e.Last password? Recovery password link	http://127.0.0.1:5000/signin	Application should show below UI elements: a.email text box b.password text box c.Login button with orange colour d.New customer? Create account link e.Last password? Recovery password link	Working as expected	Pass	Steps are not clear to follow	yes		customer

LoginPage_TC_OO3	Functional	Home page	Verify user is able to log into application with Valid credentials	1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button 3.Enter Valid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: thamizhchelvan@gmail.com password: Thamizhchelvan123	User should navigate to user account homepage	Working as expected	Pass	Steps are not clear to follow	yes		customer
LoginPage_TC_OO4	Functional	Login page	Verify user is able to log into application with Invalid credentials	1.Enter URL(https://shopenzer.com/) and click go 2.Click on My Account dropdown button 3.Enter Invalid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: thamizhchelvan@gmail.com password: Thamizhchelvan123	Application should show 'Incorrect email or password' validation message.	Working as expected	Pass	Steps are not clear to follow	yes		customer

8.2 User Acceptance Testing:

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: 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	Sub total
By Design	8	4	2	3	17
Duplicate	1	0	2	1	4
External	2	3	0	1	6
Fixed	10	2	5	18	35

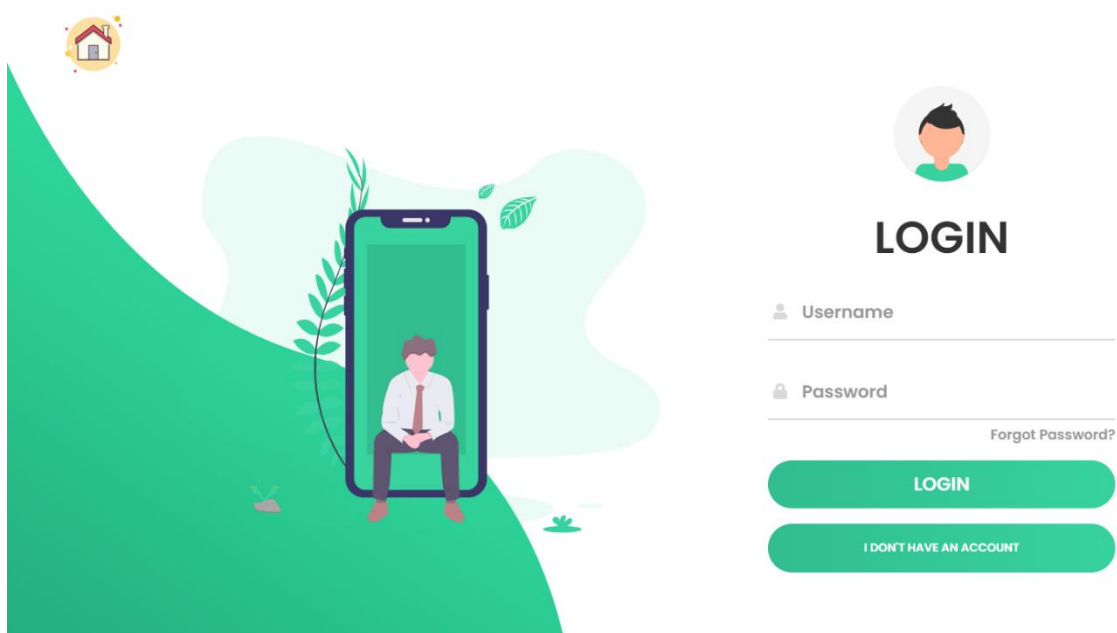
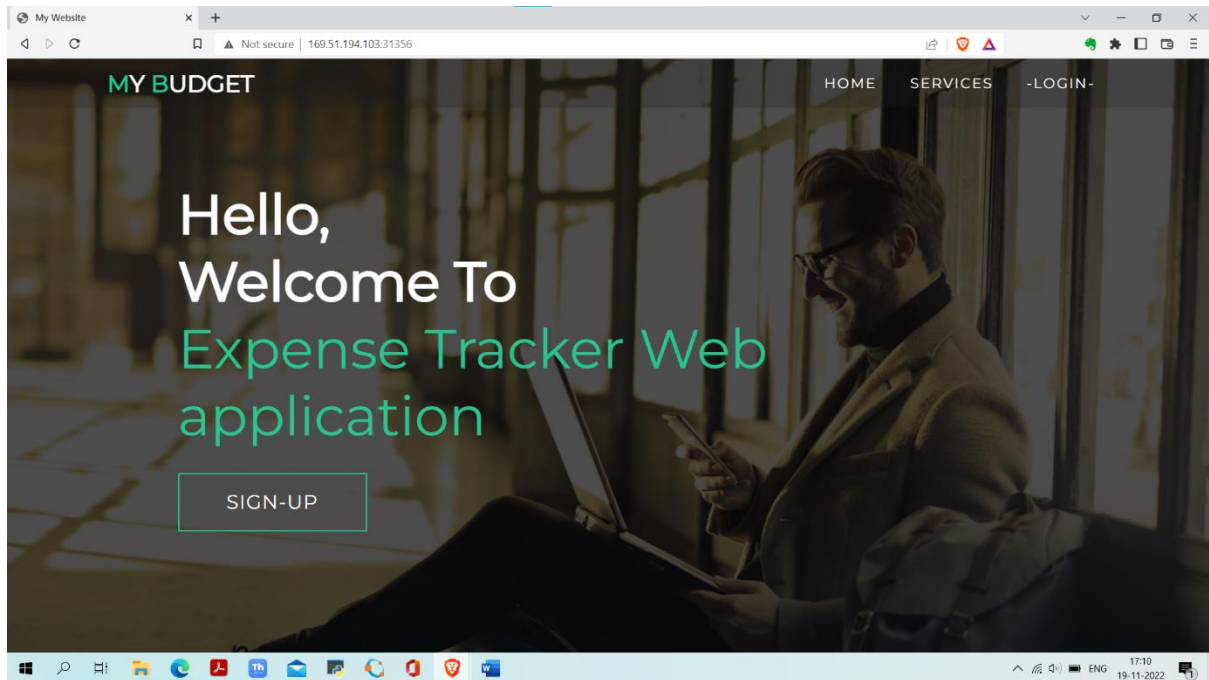
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	3	2	1	6
Totals	21	12	13	25	71

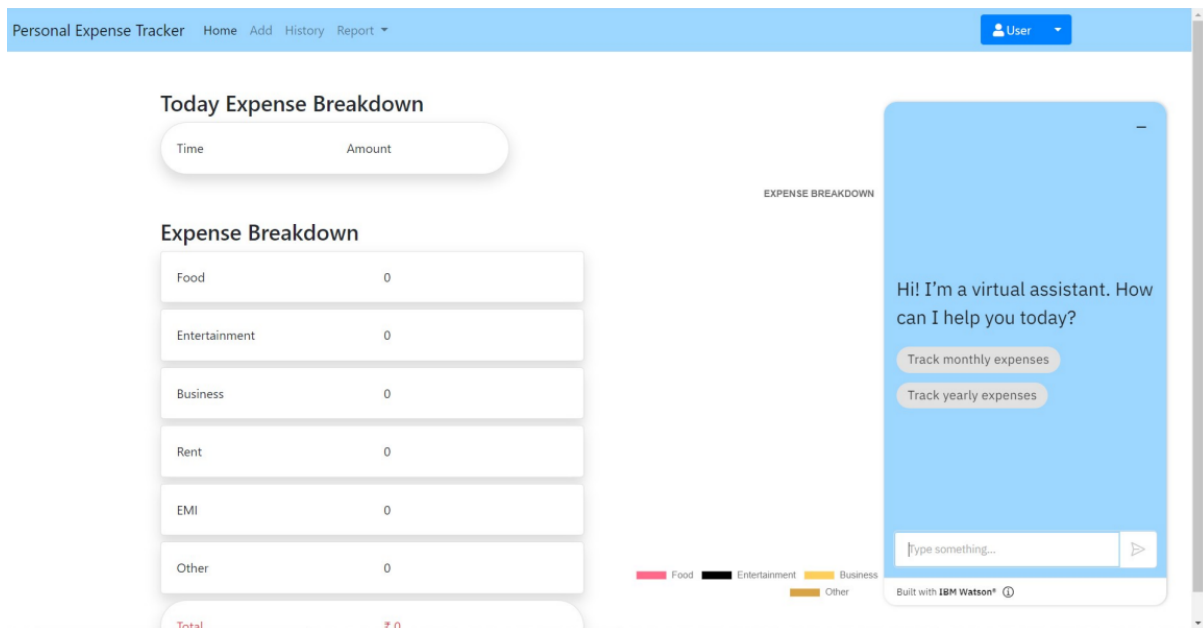
3.Test Case Analysis

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

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	8	0	0	8
Client Application	50	0	0	50
Security	2	0	0	2
Outsource Shipping	3	0	0	3
Exception Reporting	10	0	0	10
Final Report Output	6	0	0	6
Version Control	3	0	0	3

RESULT





10. ADVANTAGES & DISADVANTAGES

ADVANTAGES:

- Track your expenses anywhere, anytime.
- Seamlessly manage your money and budget without any financial paperwork.
- Access, submit, and approve invoices irrespective of time and location.
- Avoid data loss by scanning your tickets and bills and saving in the app.

DISADVANTAGES:

- Difficulty finding a budgeting method that works for you.
- Budgeting takes time and effort.
- You may think it's too rigid.

11 CONCLUSION :

The project personal expensive tracker has been successfully implemented by using python, flask, html/css/java script and the database created by using ibm db2 and also successfully executed and implemented.

12. FUTURE SCOPE:

1) It will have various options to keep record (for example Food, Travelling Fuel, Salary).

2) Automatically it will keep on sending notifications for our daily expenditure.

3) In today's busy and expensive life, we are in a great rush to make moneys, but at the end of the month we broke off.

As we are unknowingly spending money on title and unwanted things. So, we have come over with the plan to follow our profit.

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">

    <title>Sign-up</title>

    <link href="..\static\css\signup.css" rel="stylesheet">

    <script src="https://kit.fontawesome.com/a81368914c.js"></script>

    <link rel="stylesheet"

href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.cs
s" integrity="sha384-
Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFA
W/dAiS6JXm" crossorigin="anonymous">

</head>

<body>
```



```

        <input placeholder="Example@email.com" type="email"
name="email"/>

    </div>

    <!--Password-box-->

    <div class="text">

        <input placeholder="Password" type="password"
name="password"/>

    </div>

    <!--terms-->

    <div class="terms">

        <input class="check" type="checkbox" required/>

        <p class="conditions">I read and agree to <a href="#">Terms
&amp; Conditions</ a></p>

    </div>

    <!--button-->

    <div class="toop">

        <button type="submit" class="btn btn-primary" >CREATE
ACCOUNT</button><br><br>

    <!--sign-in-->

```

```
<p class="conditions" id="p3">Already have an account <a
href="/signin">Sign in</a></p>

</div>

</form>

</div>

</div>

</div>

</body>

</html>
```

GITHUB & PROJECT DEMO LINK:

Github: <https://github.com/IBM-EPBL/IBM-Project-37856-1660355867>

Project demo video link:

https://drive.google.com/file/d/1SjLK2Q7hwZZwDwoo0hnNhFBB08_m8VQH/view?usp=sharing