PROJECT REPORT-PERSONAL EXPENSE TRACKER (TEAM ID:PNT2022TMID23073)

INTRODUCTION:

Personal Income Expense Tracker is to easily manage your finance by recording your monthly incomes and expenses. Sometimes at the end of every month, we usually find a shortage of money due to our unaccounted expenses or our bad spending habits. It is necessary to keep track of our incomes and expenses.

1.1 Project Overview

Personal Expense Tracker (PET) 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 . Personal expense or finance entails all the financial decisions and activities that a Finance app makes your life easier by helping you to manage your finances efficiently.

A personal finance app will not only help you with budgeting and accounting but also give you helpful insights about money management. Personal expense or 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.

Also, users can get an analysis of their expenditure in graphical forms. 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.

1.2 Purpose

The purpose of the project is to help you control your expenses in order to manage the proper spending of money. About the System The Expense Tracker App was created in a HTML web browser that use JavaScript to give user a great interactive experience when using an app.

When you track your spending, you know where your money goes and you can ensure that your money is used wisely. Tracking your expenditures also allows you to understand why you're in debt and how you got there. This will then help you design a befitting strategy of getting out of debt. Budgeting ensures you're not spending more than you're making, allowing you to plan for short- and long-term expenses. It's an easy, helpful way for people with all types of income and expenses to keep their finances in order.

LITERATURE SURVEY

Literature review was carried out to gain knowledge and improve the skills needed to complete this project. This chapter shows the different techniques that have been implemented.

2.1 Existing Problem

An expense tracker is a software or application that helps to keep an accurate record of your money inflow and outflow. Many people in India live on a fixed income, and they find that towards the end of the month they don't have sufficient money to meet their needs.

2.2 References

[1] http://expense-manager.com/how-expense software/

[2] https://www.splitwise.com/terms

[3] http://code.google.com/p/socialauthandroid/wiki/Facebook

[4] http://code.google.com/p/socialauth-android

[5] Developer.android.com

[6] http://www.appbrain.com/app/expensemanager/ com.expensemanager

[7] https://www.xpenditure.com/en?

[8] http://expense-manager.com/how-expense software/

[9] Donn Felker, "Android Application Development for Dummies", published by For Dummies, 2010.

[10] Ed Burnette, "Hello, Android: Introducing Google's Mobile Development Platform", published by Pragmatic Bookshelf, 2009.

Lee, "Beginning Android Application Development", Published by WroxPress, 2011.

2.3 Problem Statement Definition

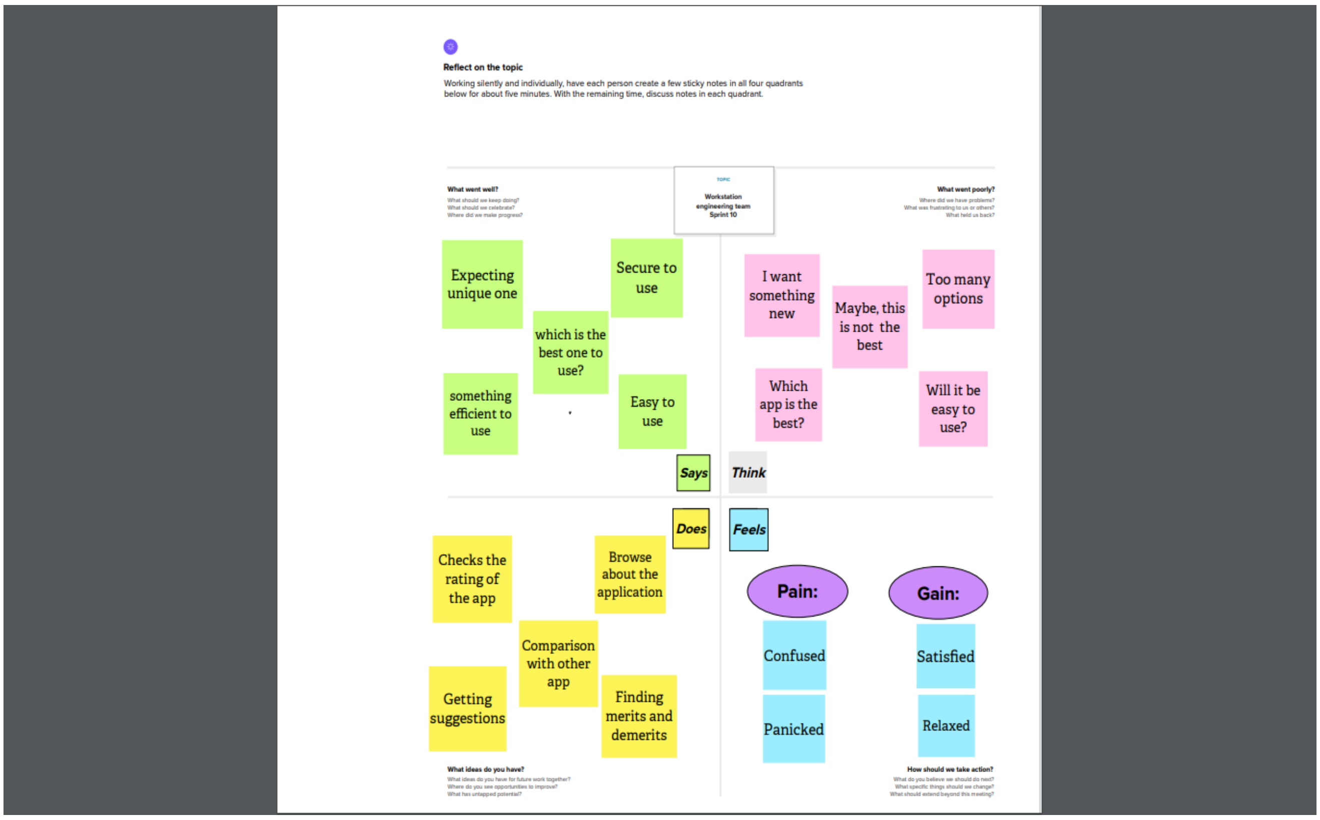
It is tough to keep track of all the financial decisions and activities that a person makes. Traditional expense tracking methods are inconvenient and unreliable. In order to get a quick overview about your total incomes and expenses and control spending , its convenient to digitize the process by having a personal expense tracker.

Who does the problem affect?	Working individuals, students and budget conscious consumers.
What are the boundaries of the problem?	Limited features to provide for expense tracking.
What is the issue?	To be vigilant about the expense spent increases financial stress. Being indecisive about the finances may result in less financial security and exceed the budget.
When does this issue occur?	When people are not able to track their expenses properly.
Where is the issue occurring?	In daily life of employees as well as students.
Why is it important that we fix the problem?	Fixing this issue will help users to better plan their budget and lead to financial well-being.

- Sophie, who is a homemaker, finds it hard to control her desire to shop. To stop herself from overindulging in impulsive purchases, she needs to track her expenses and hold herself accountable.
- Sam is a high school student who usually gets a limited allowance from his parents. Tracking his expenses and good budgeting technique allows him to spend on his regular expenses as well as on himself.
- Percy, who is a novice budgeter, finds it tedious to track and manage the expenses amongst his busy schedule. Prioritizing his expenses will help him to curtail his unnecessary expenditures.

IDEATION & PROPOSED SOLUTION

3.1Empathy Map Canvas


Reflect on the topic

Working silently and individually, have each person create a few sticky notes in all four quadrants below for about five minutes. With the remaining time, discuss notes in each quadrant.

TOPIC

Workstation engineering team Sprint 10

What went well?

What should we keep doing?
What should we celebrate?
Where did we make progress?

What went poorly?

Where did we have problems?
What was frustrating to us or others?
What held us back?

What ideas do you have?

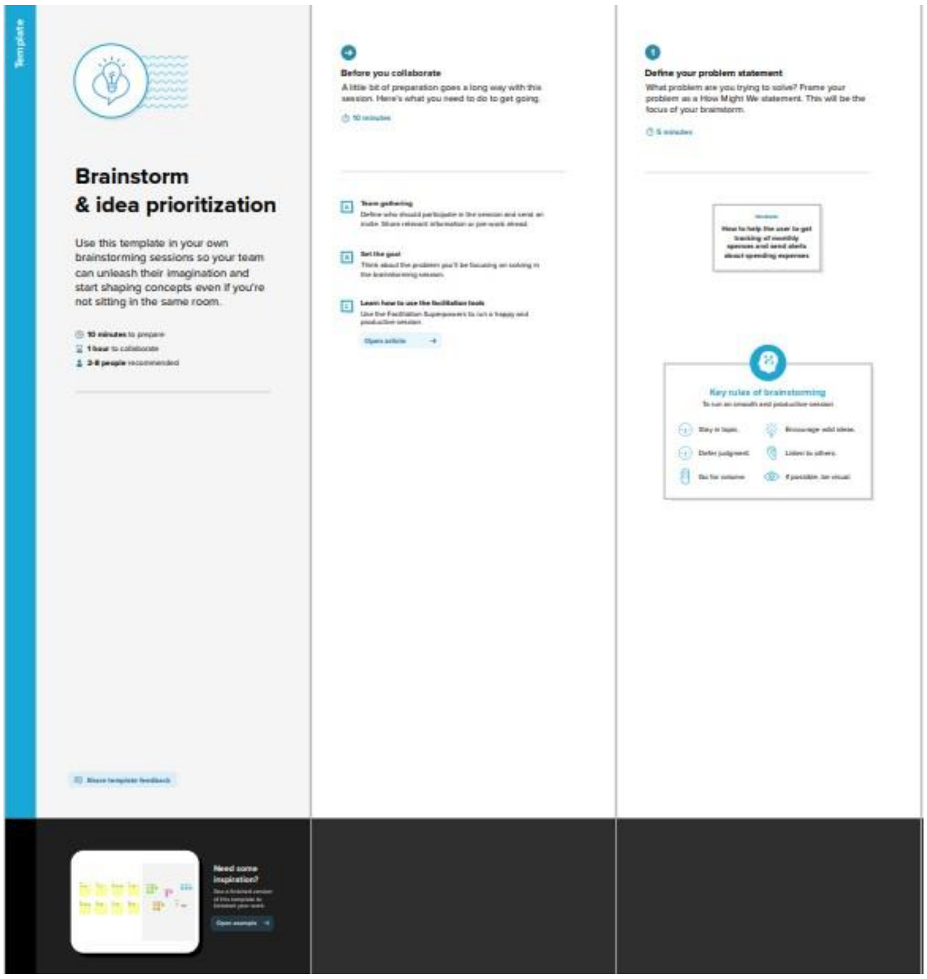
What ideas do you have for future work together?
Where do you see opportunities to improve?
What has untapped potential?

How should we take action?

What do you believe we should do next?
What specific things should we change?
What should extend beyond this meeting?

3.1 Ideation & Brainstorming

3.1.a Brainstorm



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

Need some inspiration?
See a finished version of this template to kickstart your work.
Open example

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.

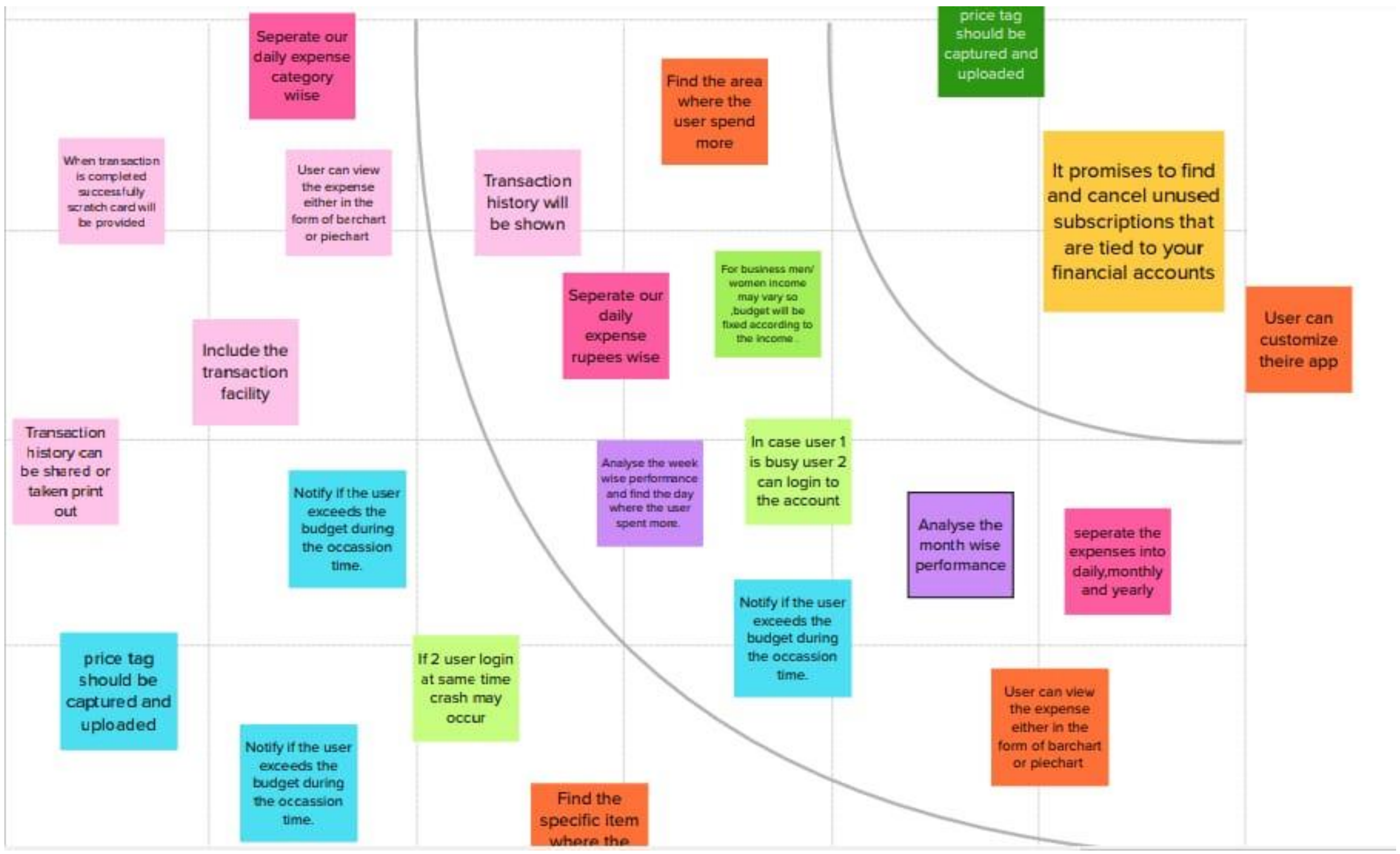
C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.
Open article

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

[illegible]
How to help the user to get tracking of monthly expenses and send alerts about spending expenses

Key rules of brainstorming
To run an smooth and productive session

Stay in topic.	Encourage wild ideas.
Defer judgment.	Listen to others.
Go for volume.	If possible, be visual.


Seperate our daily expense category wiise
When transaction is completed successfully scratch card will be provided
User can view the expense either in the form of berchart or piechart
Transaction history will be shown
Find the area where the user spend more
price tag should be captured and uploaded
It promises to find and cancel unused subscriptions that are tied to your financial accounts
Seperate our daily expense rupees wise
For business men/ women income may vary so ,budget will be fixed according to the income
User can customize theire app
Include the transaction facility
Transaction history can be shared or taken print out
Notify if the user exceeds the budget during the occassion time.
Analyse the week wise performance and find the day where the user spent more.
In case user 1 is busy user 2 can login to the account
Analyse the month wise performance
seperate the expenses into daily,monthly and yearly
Notify if the user exceeds the budget during the occassion time.
price tag should be captured and uploaded
If 2 user login at same time crash may occur
User can view the expense either in the form of barchart or piechart
Notify if the user exceeds the budget during the occassion time.
Find the specific item where the

PROBLEM STATEMENT

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 personto record daily expenses and earning but due to unawareness and lack of proper applicationsto 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.

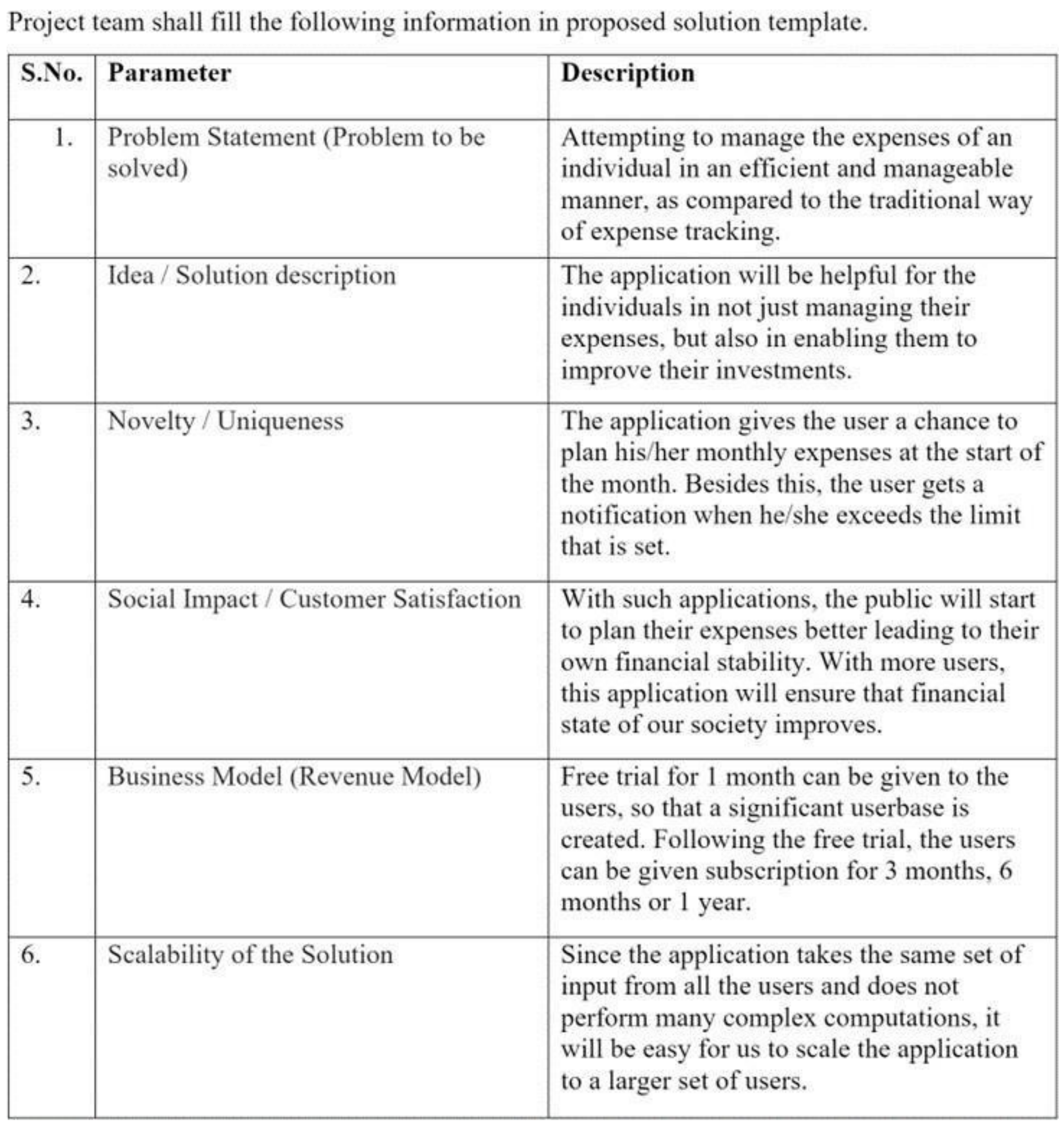
What is the issue? The paper based expense tracker system does not provide the userportability , existing system only used on paper based records so unable to update anywhereexpenses done and unable to update the location of the expense details disruptive that the proposed system.

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 thesmaller 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.

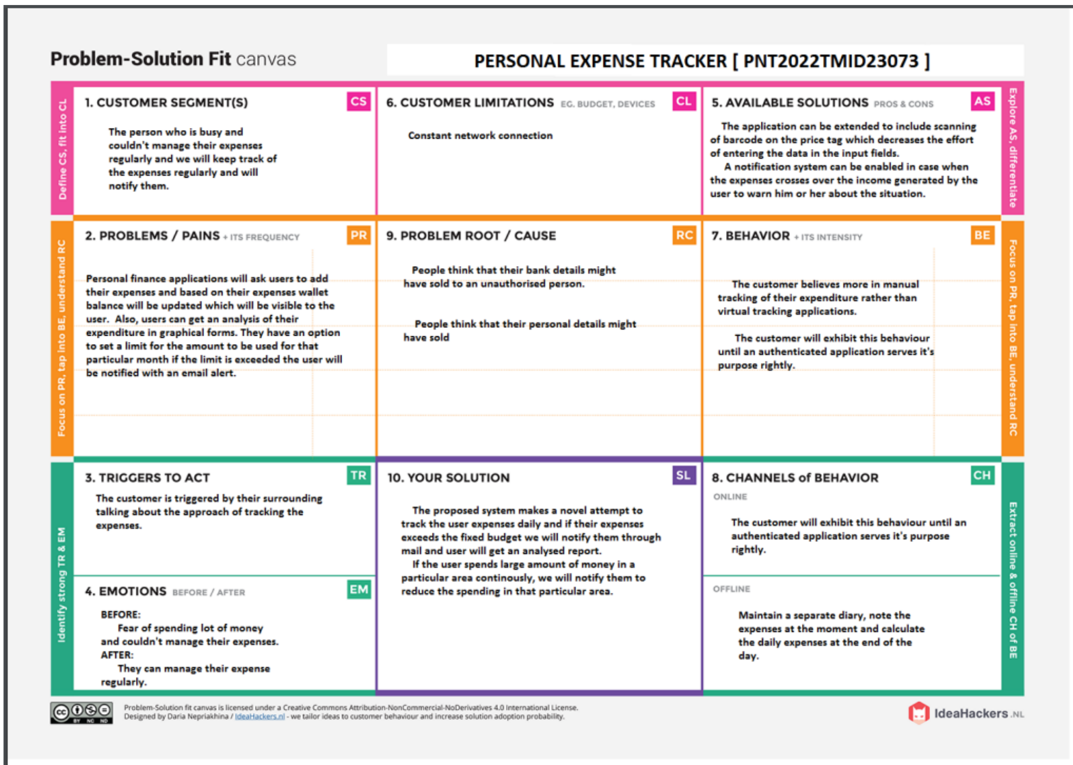
3.2 Proposed Solution



Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Attempting to manage the expenses of an individual in an efficient and manageable manner, as compared to the traditional way of expense tracking.
2.	Idea / Solution description	The application will be helpful for the individuals in not just managing their expenses, but also in enabling them to improve their investments.
3.	Novelty / Uniqueness	The application gives the user a chance to plan his/her monthly expenses at the start of the month. Besides this, the user gets a notification when he/she exceeds the limit that is set.
4.	Social Impact / Customer Satisfaction	With such applications, the public will start to plan their expenses better leading to their own financial stability. With more users, this application will ensure that financial state of our society improves.
5.	Business Model (Revenue Model)	Free trial for 1 month can be given to the users, so that a significant userbase is created. Following the free trial, the users can be given subscription for 3 months, 6 months or 1 year.
6.	Scalability of the Solution	Since the application takes the same set of input from all the users and does not perform many complex computations, it will be easy for us to scale the application to a larger set of users.

3.3 Problem Solution fit



Problem-Solution Fit canvas

PERSONAL EXPENSE TRACKER [PNT2022TMID23073]

Define CS, fit into CL

1. CUSTOMER SEGMENT(S) CS

The person who is busy and couldn't manage their expenses regularly and we will keep track of the expenses regularly and will notify them.

6. CUSTOMER LIMITATIONS EG. BUDGET, DEVICES CL

Constant network connection

5. AVAILABLE SOLUTIONS PROS & CONS AS

The application can be extended to include scanning of barcode on the price tag which decreases the effort of entering the data in the input fields.
A notification system can be enabled in case when the expenses crosses over the income generated by the user to warn him or her about the situation.

Explore AS, differentiate

Focus on PR, tap into BE, understand RC

2. PROBLEMS / PAINS + ITS FREQUENCY PR

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. Also, users can get an analysis of their expenditure in graphical forms. 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.

9. PROBLEM ROOT / CAUSE RC

People think that their bank details might have sold to an unauthorised person.

People think that their personal details might have sold

7. BEHAVIOR + ITS INTENSITY BE

The customer believes more in manual tracking of their expenditure rather than virtual tracking applications.

The customer will exhibit this behaviour until an authenticated application serves it's purpose rightly.

Focus on PR, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS TO ACT TR

The customer is triggered by their surrounding talking about the approach of tracking the expenses.

4. EMOTIONS BEFORE / AFTER EM

BEFORE:
Fear of spending lot of money and couldn't manage their expenses.
AFTER:
They can manage their expense regularly.

10. YOUR SOLUTION SL

The proposed system makes a novel attempt to track the user expenses daily and if their expenses exceeds the fixed budget we will notify them through mail and user will get an analysed report.
If the user spends large amount of money in a particular area continously, we will notify them to reduce the spending in that particular area.

8. CHANNELS of BEHAVIOR CH

ONLINE

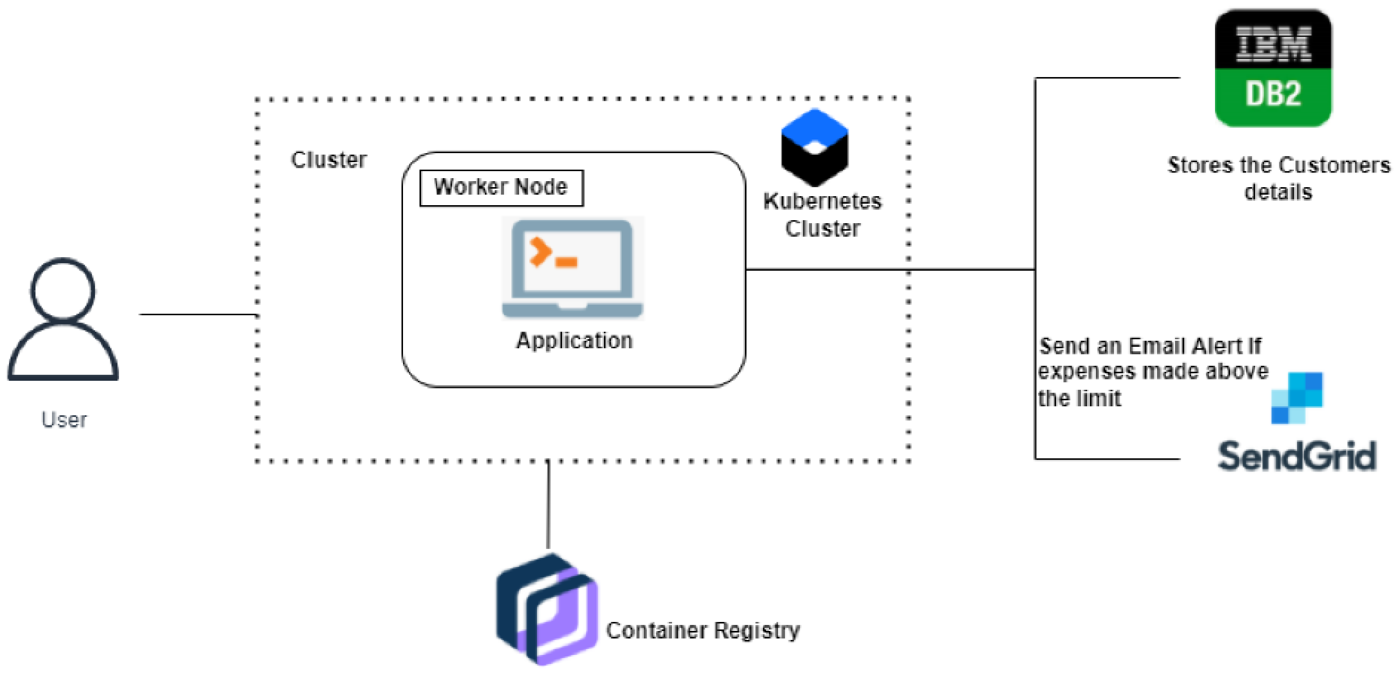
The customer will exhibit this behaviour until an authenticated application serves it's purpose rightly.

OFFLINE

Maintain a separate diary, note the expenses at the moment and calculate the daily expenses at the end of the day.

Extract online & offline CH of BE

SOLUTION ARCHITECTURE



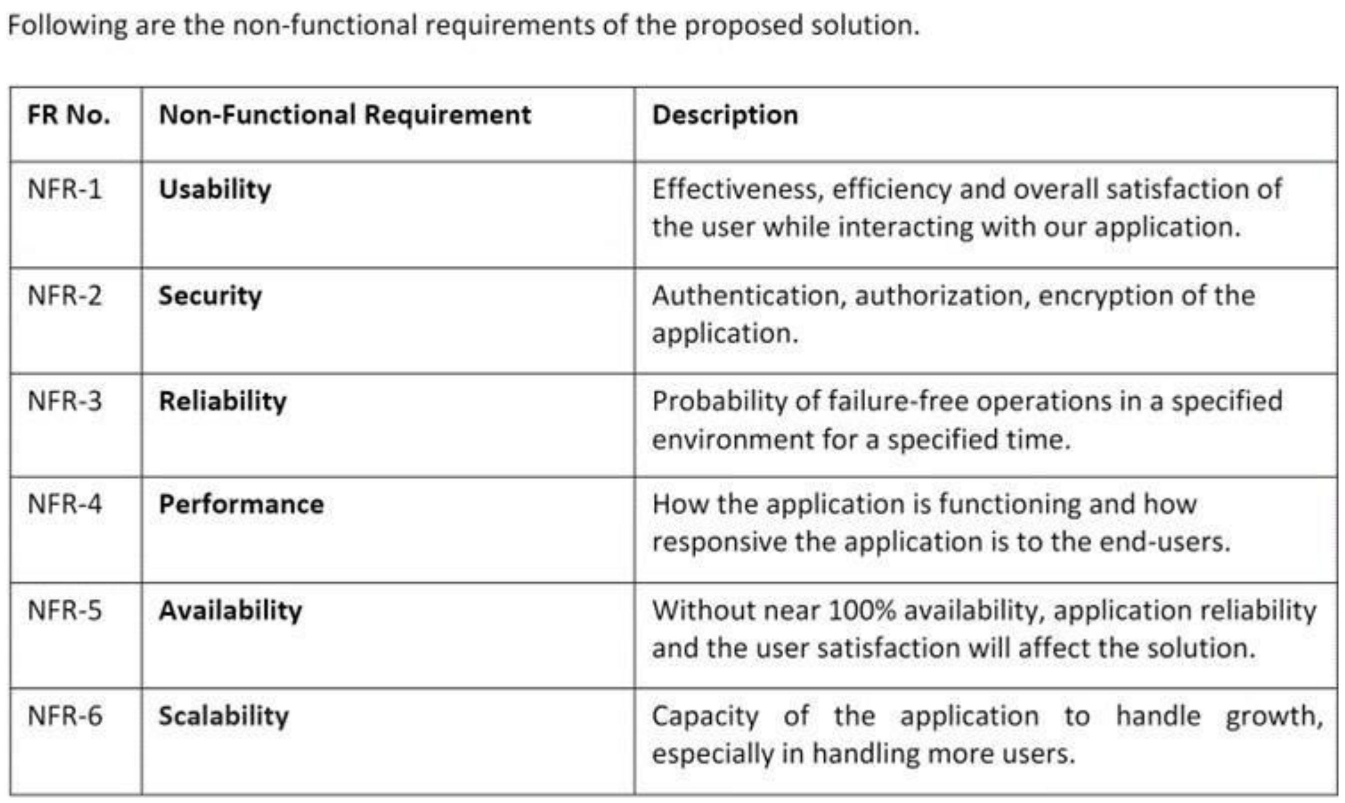
CHAPTER 4 FUNCTIONAL REQUIREMENT

4.1 Functional Requirements

5	Parameter	Description
1.	Problem Statement (Problem to be solved)	Personal finance entails all the financial decisions and activities that a Finance app makes your life easier by helping you to manage your finances efficiently. A personal finance app will not only help you withbudgeting and accounting but also give you helpful insights about money management. 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. Also, users can get ananalysis of their expenditure in graphical forms. 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.
2.	Idea / Solution description	The application can be extended to include scanning of barcode on the price tag which decreases the effort of entering the data in the input fields.
3.	Novelty / Uniqueness	A notification system can be enabled in case when the expenses exceeds over the income generated by the user to warn him or her about the situation.
4.	Social Impact / Customer Satisfaction	If you forget to analyse the daily or monthly expense we will notify it. User can view the expense either in the form of bar diagram or piechart .
5.	Business Model (Revenue Model)	If our application is developed well we will track the users expense efficiently and will deliver as the product to the users.

6.	Scalability of the Solution	In future, we can enhance our application by adding additional features like enabling Email notification and barcode scanners to directly calculate the price of the product.

5.1 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.

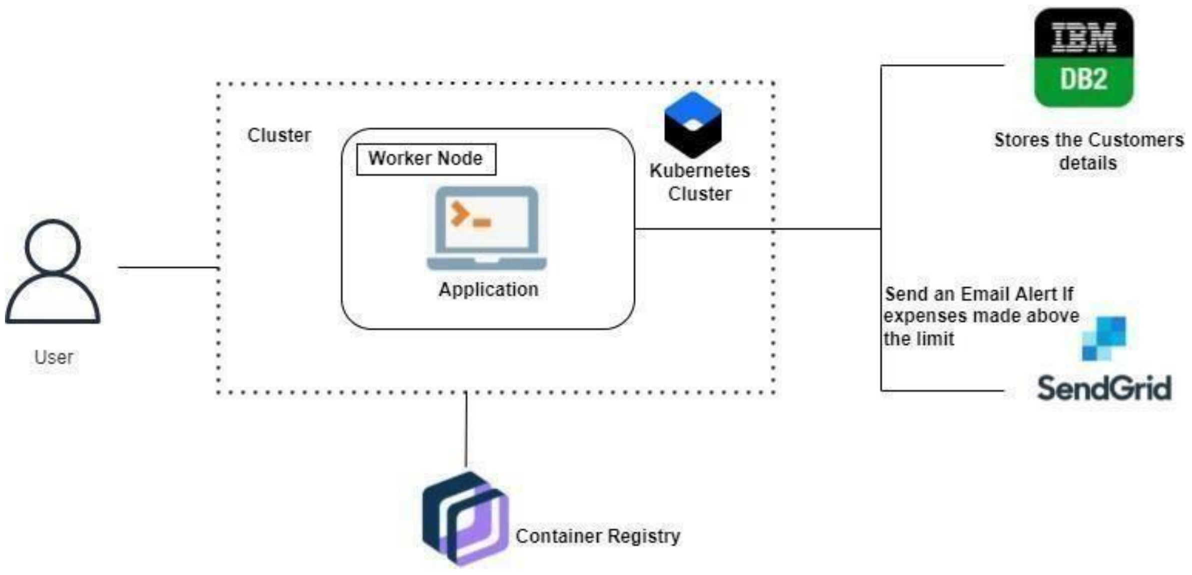
PRODUCT DESIGN

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.

5.2Technical Architecture

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



5.3 User Stories

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

User Type	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Acceptance criteria**	**Priority**	**Release**
Customer (Mobileuser & 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	

CHAPTER 6

PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

Use the below template to create product backlog and sprint schedule.

Sprint	Functional requirement (Epic)	User story number	User story/task	Story points	priority	Team members
Sprint-1	Registration	USN-1	Register for the application by entering email,password, and confirming password.	2	High	Subadhina J
Sprint-1		USN-2	As a user will receive confirmation email once have registered for the application	1	High	Miruthula N
Sprint-2		USN-3	Register for the application through Facebook	2	Low	Poornimadevi A
Sprint-1		USN-4	User register for the application through Gmail	2	Medium	Suuky M
Sprint-1	Login	USN-5	User log into the application by entering email & password	1	High	Subadhina J
Sprint-3	Dashboard	USN-6	Expenditure details on the application	3	High	Miruthula N
Sprint-3	Limits	USN-6	User can set monthly expense limit so that receive a mail on exceeding	4	High	Poornimadevi A
Sprint-4	Reports	USN-6	View the graphical form of expenses category wise	5	Medium	Suuky M

6.2 Sprint Delivery Schedule

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	6	6 Days	15 Oct 2022	30 Oct 2022	6	30 Oct 2022
Sprint-2	2	6 Days	30 Oct 2022	05 Nov 2022	2	05 Nov 2022
Sprint-3	7	6 Days	05 Nov 2022	12 Nov2022	7	12 Nov 2022
Sprint-4	5	6 Days	12 Nov2022	19 Nov2022	5	19 N o v 2022

7.1 Feature 1

1. Expense and revenue tracking.
2. Managing transaction receipts and records.
3. Paying taxes in time.
4. Processing payment and invoices.
5. Create in-depth reports.

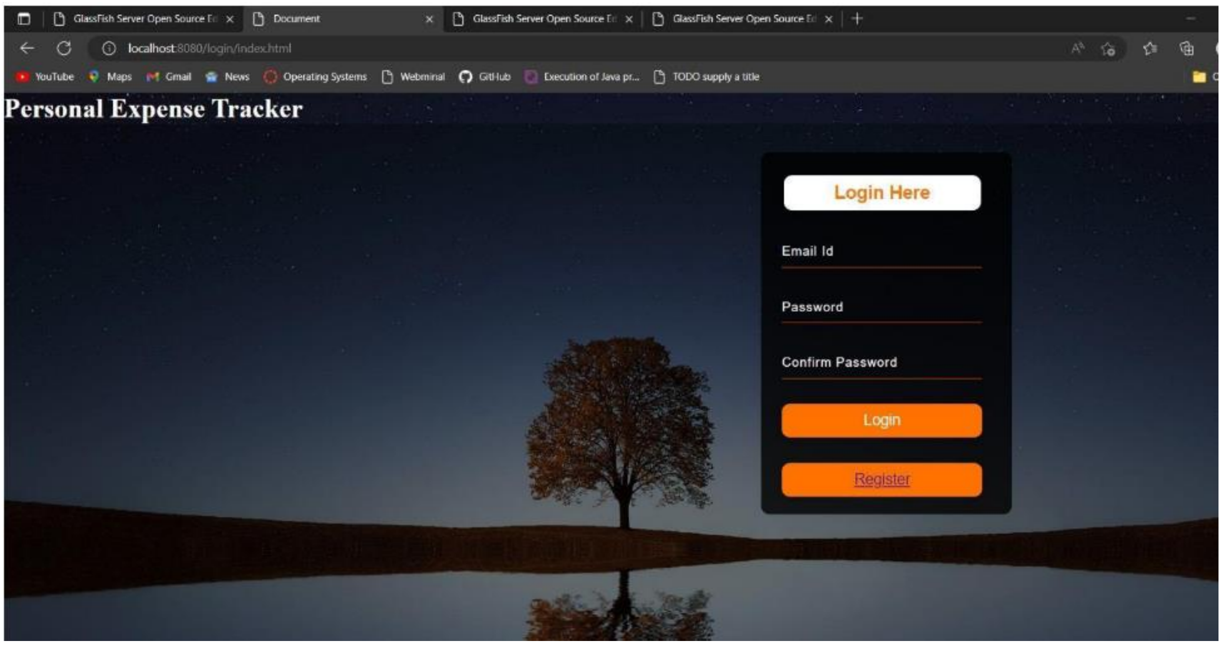
TESTING

8.1 Test Cases

DASHBOARD

```
apiVersion: v1
kind:
ServiceAccount
metadata:
name: admin-
user
namespace:
kubernetes-
dashboard

---

apiVersion: v1
kind: Secret
metadata:
name: admin-
user-token
namespace:
kubernetes-
dashboard
annotations:


kubernetes.io/serv
ice-account.name:
admin-user

type:
kubernetes.io/serv
ice-account-token


---

apiVersion:
rbac.authorization

.k8s.io/v
1kind:

ClusterRoleBinding

metadata:
name: admin-
user

roleRef: apiGroup:
rbac.authorization

.k8s.io
```

```
  kind: ClusterRole
name: cluster-
admin

subjects:

- kind:
ServiceAccount
name: admin-
user
namespace:
kubernetes-
dashboard
```


GlassFish Server Open Source Ed
Document
GlassFish Server Open Source Ed
GlassFish Server Open Source Ed
localhost:8080/login/index.html
YouTube
Maps
Gmail
News
Operating Systems
Webminal
GitHub
Execution of Java pr...
TODO supply a title

Personal Expense Tracker

Login Here

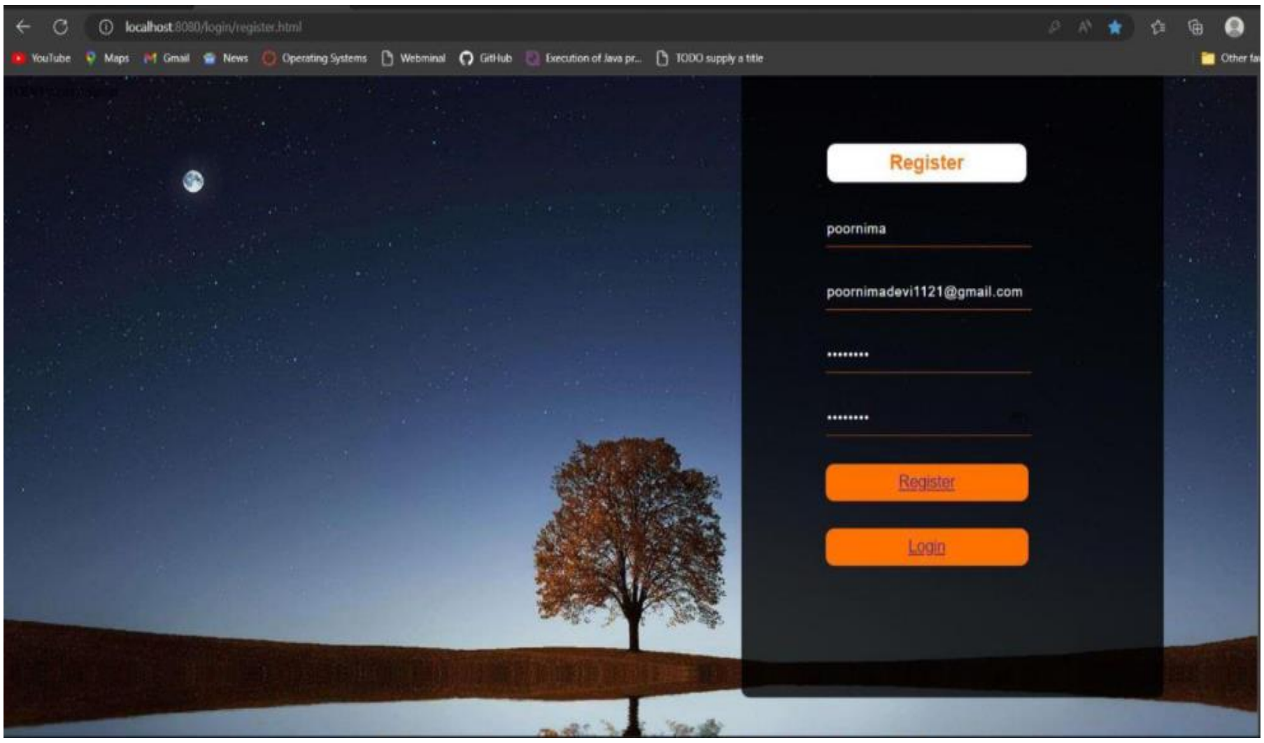
Email Id

Password

Confirm Password

Login

Register



Register

poornima

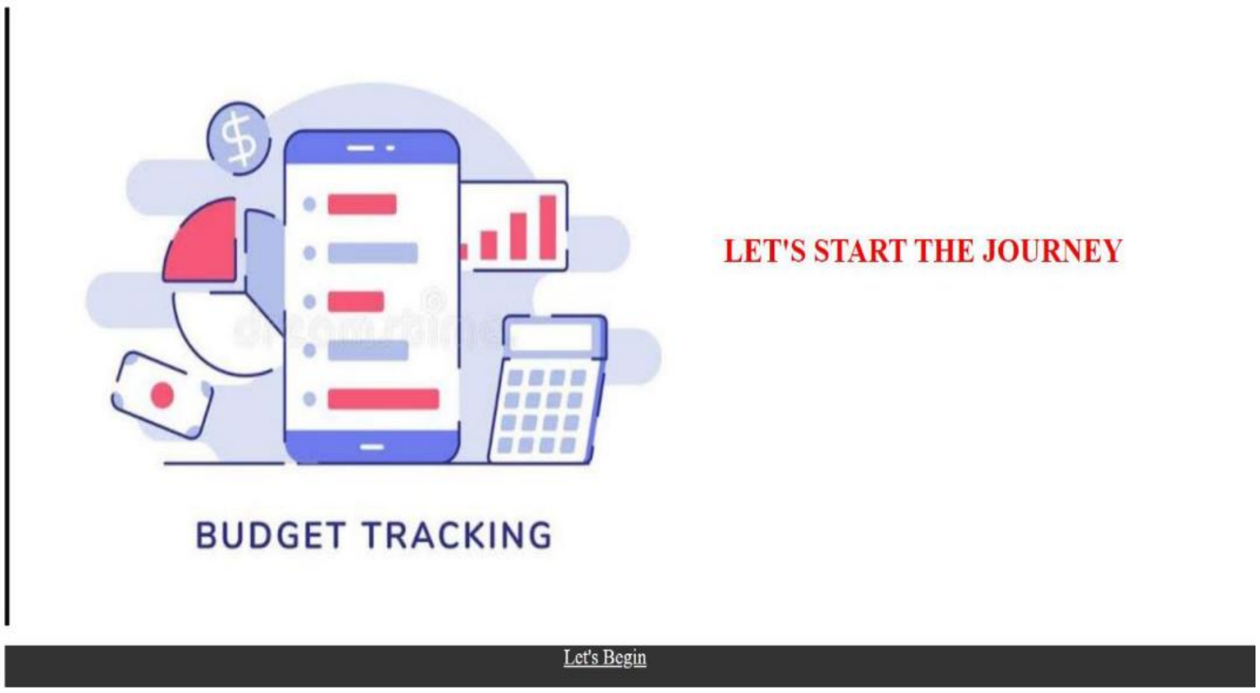
poornimadevi1121@gmail.com

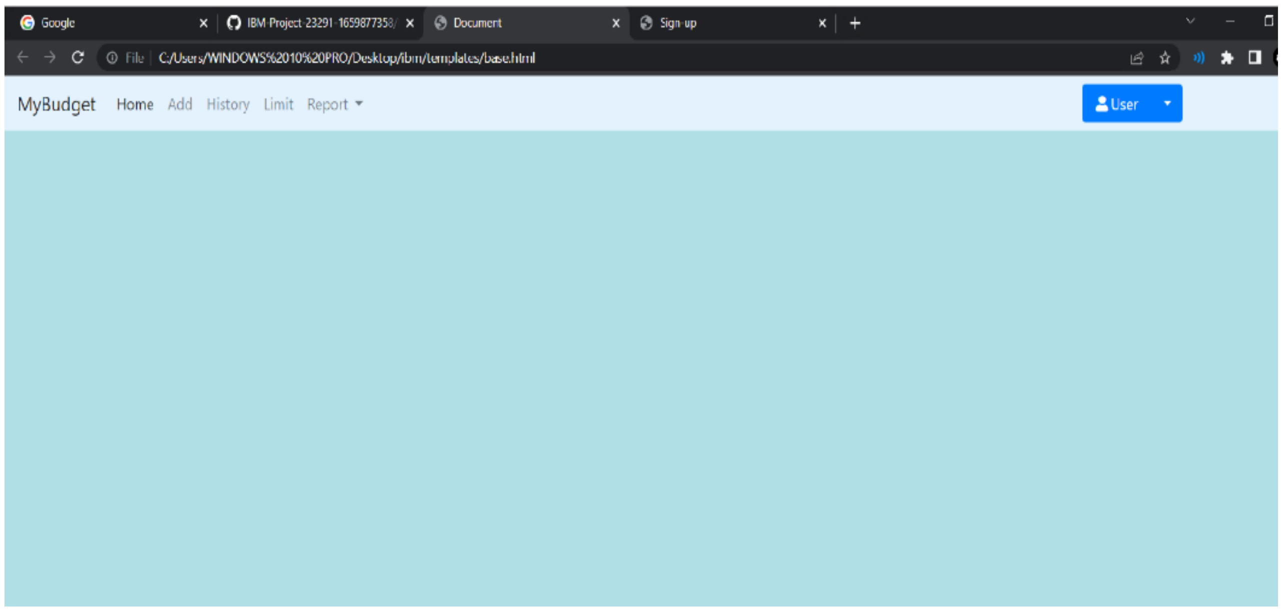
••••••••

••••••••

Register

Login


BUDGET TRACKING
LET'S START THE JOURNEY
Let's Begin


Google
IBM-Project-23291-165987735
Document
Sign-up
File
C:/Users/WINDOWS%2010%20PRO/Desktop/ibm/templates/base.html
MyBudget
Home
Add
History
Limit
Report
User

9.1 Performance Metrics

RESULTS

An application can be a very powerful tool for businesses if once the app becomes a success. However, the success of an app is measured through numbers, metrics, and analytics. Developing an app takes quite a lot, so once you've dedicated much time, money, and effort to the process, it's mandatory to measure mobile app performance.

10.1 Advantages

1. Maintaining Financial Control

When if comes to personal finance, being out of control is not something anybody would strive for. There's nothing financially worse than feeling like you don't have any idea what's going on with your money.

The good news is, when you make an effort to record every financial transaction you make, you are essentially, taking the reins on anything and everything involving your money. At any one time, you will know exactly how much money is sitting in your bank account, and how much you can spend.

In other words, when you track your expenses, you take complete control over your finances.

Holding Yourself Accountable

If you have any plans on saving, investing, getting out of debt, or building wealth, what is holding you accountable. I mean, we can all set financial goals, and have financial dreams, but if you aren't tracking your expenses, there is nothing to hold you accountable when you make a bad financial decision. 1. Susceptible to costly human errors

Did you know that up to 9 out of 10 spreadsheets consist of human errors?

Unfortunately, even the smallest of mistakes in a spreadsheet can cause catastrophic consequences. Fidelity Magellan Fund once suffered a $2.6 billion overstatement when an accountant accidentally omitted the minus sign on a net capital loss of $1.3 billion.

There is always a greater chance of human error with manual processes, especially when it comes to complex data sets, such as those involved with expense management. Failure to accurately track you company's expenditure and pay invoices on time can wreak havoc on your business's bottom line.

2. Lack of collaboration and access

Because Excel spreadsheets are a single file, only one user at a time may access and modify the data. It can also be challenging to collaborate with other departments because you have to manually share or email a copy of the relevant spreadsheet with your colleagues.

When it comes to expense management data, however, these Excel spreadsheets are frequently shared and proofed across numerous teams and departments. To guarantee that everyone is viewing the current version, users must be rigorous about version control and sharing when updates are made.

3. Time-consuming manual processes

The quantity of expense management data you need to review, analyse, and track will grow as your business evolves. The only way to validate your data when using Excel spreadsheets, however, is to manually double check and re-enter any inaccurate information. This is a time-consuming and labour-intensive task.

As a result, Excel spreadsheets slow workers down and reduce accuracy by requiring them to perform repetitive processes that could be simplified or automated using expense management and invoicing software.

4. Inaccuracy leads to slower decision making

There’s no denying that manual processes which increase the chances of inaccuracy lead to slower decision making within companies. Extracting expense data and invoices from different departments, as well as consolidating them and summarising the information, is incredibly time consuming.

Because spreadsheets are prone to inaccuracies, everyone involved in processing the information must double-check the data as much as possible, which can further slow the process.

5. Lack of version control

The sharing of Excel spreadsheets from team to team might lead to concerns with the data's version and validity. You should consider who had the most recent access to the data. Who did what to the spreadsheet and when? Can you confirm that the calculations are correct? If you don't trust the answers, you may need to start all over again.

6. Data isn't updated in real-time

Excel spreadsheets don't update in real-time, so each update requires manual input. Because Excel spreadsheets can be difficult to modify, they are usually updated at the end of the day or every few days. Typically, this entails keeping daily paper records and then manually entering them to update the Excel spreadsheet at a later date. Not only is this a waste of time, but it also raises the likelihood of data being entered inaccurately or decisions being made based on out-of-date information.

7. Increased potential to lose important data

If a spreadsheet owner is unfamiliar with best practices for data storage and backup, they might keep just one version of their spreadsheet in a single location, such as on their desktop.

In the event of a technical issue, however, there's no guarantee of complete data recovery, meaning a company could lose all of their vital data in a split-second.

- Improved customer service
- Cloud-based solution
- Order Fulfillment
- Harness Customer Loyalty and Retention

10.2 Disadvantages

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Because spreadsheets are prone to inaccuracies, everyone involved in processing the information must double-check the data as much as possible, which can further slow the process.

5. Lack of version control

The sharing of Excel spreadsheets from team to team might lead to concerns with the data's version and validity. You should consider who had the most recent access to the data. Who did what to the spreadsheet and when? Can you confirm that the calculations are correct? If you don't trust the answers, you may need to start all over again.

6. Data isn't updated in real-time

Excel spreadsheets don't update in real-time, so each update requires manual input. Because Excel spreadsheets can be difficult to modify, they are usually updated at the end of the day or every few days. Typically, this entails keeping daily paper records and then manually entering them to update the Excel spreadsheet at a later date. Not only is this a waste of time, but it also raises the likelihood of data being entered inaccurately or decisions being made based on out-of-date information.

7. Increased potential to lose important data

If a spreadsheet owner is unfamiliar with best practices for data storage and backup, they might keep just one version of their spreadsheet in a single location, such as on their desktop.

CONCLUSION

Taking proper care of our record is crucial in every business, no matter how big or little, we must understand. We must educate ourselves about the idea of effective inventory management and its applications because we can see that managers do not fully grasp it. A company's inventory management system is one of the reasons for its failure. Many customs to combat failure are present, and we can start from this point. Modern technologies can support us in managing and keeping an eye on our inventory. We may learn, put new ideas into practice, and assess our company**.**

FUTURE SCOPE

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

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.

4) Here user can define their own categories for expense type like food, clothing, rent and bills where they have to enter the money that has been spend and likewise can add some data in extra data to indicate the expense.

APPENDIX

SOURCE CODE:

REGISTRATION PAGE

```
<!DOCTYPE html>

<html>

<head>

<title>Login Form</title>

<link rel="stylesheet" type="text/css" href="..\static\css\login.css">

<link
href="https://fonts.googleapis.com/css?family=Poppins:600&display=swap"
rel="stylesheet">

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

<meta name="viewport" content="width=device-width, initial-scale=1">

</head>

<body >

<img class="wave" src="..\static\images\wave.png">

<div class="container">

<div class="img">

<div id="png"></div>

</div>

<div class="login-content">

<form action='homepage.html' method="POST">

<div class="msg"></div>

<h2 class="title">Welcome</h2>

<div class="input-div one">
```

```
<div class="i">

<i class="fas fa-user"></i>

</div>

<div class="div">

<h5>Username</h5>

<input type="text" name="username" class="input" required>

</div>

</div>

<div class="input-div pass">

<div class="i">

<i class="fas fa-lock"></i>

</div>

<div class="div">

<h5>Password</h5>

<input type="password"  name="password" class="input" required>

</div></div>

<a href="#">Forgot Password?</a>

<input type="submit" class="btn" value="Login">

<span>OR</span>

<div><b>Login with</b></div>

<div>

<ul>

<li><a href="#"><i class="fab fa-facebook" aria-hidden="true"></i></a></li>

<li><a href="#"><i class="fab fa-twitter" aria-hidden="true"></i></a></li>

<li><a href="#"><i class="fab fa-google"  aria-hidden="true"></i></a></li>
```

```
<li><a href="#"><i class="fab fa-linkedin" aria-hidden="true"></i></a></li>

<li><a href="#"><i class="fab fa-instagram" aria-hidden="true"></i></a></li>

</ul>

</div>

<div class="app" ><b>Don't have an account?</b><a id="app1"
href="signup.html">REGISTER</a></div>

</form>

</div>

</div>

<script type="text/javascript" src="..\static\js\login.js"></script>

</body>

</html>
```

The python code to Connect with DB

```
from flask import Flask, render_template, request, redirect, session

import ibm_db

import re

app = Flask(__name__)

app.secret_key = 'a'

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=19af6446-6171-4641-
8aba-
9dcff8e1b6ff.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=30699;SE
CURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=mbs46040;PWD
=MIEpZ1DoqwMRpGvs",'','')

#HOME--PAGE

@app.route("/home")

def home():

    return render_template("homepage.html")
```

```
@app.route("/")
def add():
   return render_template("home.html")
#SIGN--UP--OR--REGISTER
@app.route("/signup")
def signup():
   return render_template("signup.html")
@app.route('/register', methods =['GET', 'POST'])
def register():
   msg = ''
   if request.method == 'POST' :
      username = request.form['username']
      email = request.form['email']
      password = request.form['password']
      cursor = mysql.connection.cursor()
      cursor.execute('SELECT * FROM register WHERE username = % s', 
(username, ))
      account = cursor.fetchone()
      print(account)
      if account:
         msg = 'Account already exists !'
      elif not re.match(r'[^@]+@[^@]+\.[^@]+', email):
         msg = 'Invalid email address !'
      elif not re.match(r'[A-Za-z0-9]+', username):
         msg = 'name must contain only characters and numbers !'
      else:
         cursor.execute('INSERT INTO register VALUES ( % s, % s, % s)', (username, 
email,password))
         mysql.connection.commit()
```

```
            msg = 'You have successfully registered !'
            return render_template('signup.html', msg = msg)
 #LOGIN--PAGE


@app.route("/signin")
def signin():
    return render_template("login.html")
@app.route('/login',methods =['GET', 'POST'])
def login():
    global userid
    msg = ''
    if request.method == 'POST' :
        username = request.form['username']
        password = request.form['password']
        cursor = mysql.connection.cursor()
        cursor.execute('SELECT * FROM register WHERE username = % s AND
password = % s', (username, password ),)
        account = cursor.fetchone()
        print (account)
        if account:
            session['loggedin'] = True
            session['id'] = account[0]
            userid=  account[0]
            session['username'] = account[1]
            return redirect('/home')
        else:
            msg = 'Incorrect username / password !'
    return render_template('login.html', msg = msg)
```

```
#ADDING----DATA
@app.route("/add")
def adding():
   return render_template('add.html')
@app.route('/addexpense',methods=['GET', 'POST'])
def addexpense():
   date = request.form['date']
   expensename = request.form['expensename']
   amount = request.form['amount']
   paymode = request.form['paymode']
   category = request.form['category']
   cursor = mysql.connection.cursor()
   cursor.execute('INSERT INTO expenses VALUES ( % s, % s, % s, % s, % s, % s)',
(session['id'] ,date, expensename, amount, paymode, category))
   mysql.connection.commit()
   print(date + " " + expensename + " " + amount + " " + paymode + " " +
category)
   return redirect("/display")
#DISPLAY---graph
@app.route("/display")
def display():
   print(session["username"],session['id'])
   cursor = mysql.connection.cursor()
   cursor.execute('SELECT * FROM expenses ORDER BY date
DESC'.format(str(session['id'])))
   expense = cursor.fetchall()
   return render_template('display.html' ,expense = expense)
```

```
#delete---the--data
@app.route('/delete/<string:id>', methods = ['POST', 'GET' ])
def delete(id):
     cursor = mysql.connection.cursor()
     cursor.execute('DELETE FROM expenses WHERE  userid = %s', (id,))
     mysql.connection.commit()
     print('deleted successfully')
     return redirect("/display")

#UPDATE---DATA

@app.route('/edit/<id>', methods = ['POST', 'GET' ])
def edit(id):
    cursor = mysql.connection.cursor()
    cursor.execute('SELECT * FROM expenses WHERE  userid = %s', (id,))
    row = cursor.fetchall()
    print(row[0])
    return render_template('edit.html', expenses = row[0])
@app.route('/update/<id>', methods = ['POST'])
def update(id):
  if request.method == 'POST' :
      date = request.form['date']
      expensename = request.form['expensename']
      amount = request.form['amount']
      paymode = request.form['paymode']
      category = request.form['category']
     cursor = mysql.connection.cursor()
     cursor.execute("UPDATE `expenses` SET `date` = % s , `expensename` = % s ,
`amount` = % s, `paymode` = % s, `category` = % s WHERE `expenses`.`userid` = %
s ",(date, expensename, amount, str(paymode), str(category),id))
     mysql.connection.commit()
     print('successfully updated')
     return redirect("/display")


 #limit
@app.route("/limit" )
def limit():
      return redirect('/limitn')
@app.route("/limitnum" , methods = ['POST' ])
def limitnum():
    if request.method == "POST":
        number= request.form['number']
        cursor = mysql.connection.cursor()
        cursor.execute('INSERT INTO limits VALUES (% s, % s) ',(session['id'],
number))
        mysql.connection.commit()
        return redirect('/limitn')
@app.route("/limitn")
def limitn():
    cursor = mysql.connection.cursor()
    cursor.execute('SELECT limits FROM limits ORDER BY `limits`.`id` DESC LIMIT 1')
    x= cursor.fetchone()
    s = x#[0]



    return render_template("limit.html" , y= s)
```

```
#REPORT


@app.route("/today")
def today():
    cursor = mysql.connection.cursor()
    print ("HI")
    #cursor.execute('SELECT TIME(date)   , amount FROM expenses  WHERE
userid = {0} AND DATE(date) = DATE(NOW()) '.format(str(session['id'])))
    cursor.execute('SELECT TIME(date)   , amount FROM expenses  WHERE userid
= %s AND DATE(date) = DATE(NOW()) ',(id,))


    texpense = cursor.fetchall()
    print(texpense)


    cursor = mysql.connection.cursor()
    print("HIII")
    #cursor.execute('SELECT * FROM expenses WHERE userid = {0} AND
DATE(date) = DATE(NOW()) AND date ORDER BY `expenses`.`date`
DESC'.format(str(session['id'])))
    cursor.execute('SELECT * FROM expenses WHERE userid = %s AND
DATE(date) = DATE(NOW()) AND date ORDER BY `expenses`.`date` DESC',(id,))


    expense = cursor.fetchall()


    total=0
    t_food=0
    t_entertainment=0
    t_business=0
    t_rent=0
```

```
t_EMI=0

t_other=0



for x in expense:

    total += x[4]

    if x[6] == "food":

        t_food += x[4]


    elif x[6] == "entertainment":

        t_entertainment  += x[4]


    elif x[6] == "business":

        t_business  += x[4]

    elif x[6] == "rent":

        t_rent  += x[4]


    elif x[6] == "EMI":

        t_EMI  += x[4]


    elif x[6] == "other":

        t_other  += x[4]


print(total)


print(t_food)

print(t_entertainment)

print(t_business)

print(t_rent)
```

```
     print(t_EMI)

     print(t_other)




     return render_template("today.html", texpense = texpense, expense =
expense,  total = total ,

                      t_food = t_food,t_entertainment =  t_entertainment,

                      t_business = t_business,  t_rent =  t_rent,

                      t_EMI =  t_EMI,  t_other =  t_other )



@app.route("/month")

def month():

     cursor = mysql.connection.cursor()

     cursor.execute('SELECT DATE(date), SUM(amount) FROM expenses WHERE
userid= %s AND MONTH(DATE(date))= MONTH(now()) GROUP BY DATE(date)
ORDER BY DATE(date) ',(str(session['id'])))

     texpense = cursor.fetchall()

     print(texpense)


     cursor = mysql.connection.cursor()

     cursor.execute('SELECT * FROM expenses WHERE userid = % s AND
MONTH(DATE(date))= MONTH(now()) AND date ORDER BY `expenses`.`date`
DESC',(str(session['id'])))

     expense = cursor.fetchall()


     total=0

     t_food=0

     t_entertainment=0
```

```
t_business=0

t_rent=0

t_EMI=0

t_other=0



for x in expense:

    total += x[4]

    if x[6] == "food":

        t_food += x[4]


    elif x[6] == "entertainment":

        t_entertainment  += x[4]


    elif x[6] == "business":

        t_business  += x[4]

    elif x[6] == "rent":

        t_rent  += x[4]


    elif x[6] == "EMI":

        t_EMI  += x[4]


    elif x[6] == "other":

        t_other  += x[4]


print(total)


print(t_food)

print(t_entertainment)
```

```
    print(t_business)

    print(t_rent)

    print(t_EMI)

    print(t_other)




    return render_template("today.html", texpense = texpense, expense =
expense,  total = total ,

                           t_food = t_food,t_entertainment =  t_entertainment,

                           t_business = t_business,  t_rent =  t_rent,

                           t_EMI =  t_EMI,  t_other =  t_other )


@app.route("/year")

def year():

    cursor = mysql.connection.cursor()

    cursor.execute('SELECT MONTH(date), SUM(amount) FROM expenses WHERE
userid= %s AND YEAR(DATE(date))= YEAR(now()) GROUP BY MONTH(date)
ORDER BY MONTH(date) ',(str(session['id'])))

    texpense = cursor.fetchall()

    print(texpense)


    cursor = mysql.connection.cursor()

    cursor.execute('SELECT * FROM expenses WHERE userid = % s AND
YEAR(DATE(date))= YEAR(now()) AND date ORDER BY `expenses`.`date`
DESC',(str(session['id'])))

    expense = cursor.fetchall()


    total=0

    t_food=0
```

```
t_entertainment=0

t_business=0

t_rent=0

t_EMI=0

t_other=0



for x in expense:

    total += x[4]

    if x[6] == "food":

        t_food += x[4]


    elif x[6] == "entertainment":

        t_entertainment  += x[4]


    elif x[6] == "business":

        t_business  += x[4]

    elif x[6] == "rent":

        t_rent  += x[4]


    elif x[6] == "EMI":

        t_EMI  += x[4]


    elif x[6] == "other":

        t_other  += x[4]


print(total)


print(t_food)
```

```
      print(t_entertainment)

      print(t_business)

      print(t_rent)

      print(t_EMI)

      print(t_other)




      return render_template("today.html", texpense = texpense, expense =
expense,  total = total ,

                     t_food = t_food,t_entertainment =  t_entertainment,

                     t_business = t_business,  t_rent =  t_rent,

                     t_EMI =  t_EMI,  t_other =  t_other )


#log-out


@app.route('/logout')


def logout():
   session.pop('loggedin', None)

   session.pop('id', None)

   session.pop('username', None)

   return render_template('home.html')




if __name__ == "__main__":

    app.run(debug=True)
```

CONCLUSION

Thus we conclude with our final deliverables of the project Personal expense tracker.