INTRODUCTION

1.1 PROJECT OVERVIEW

A web application called simple expense tracker is the focus of the project. It seeks to implement an application that can help families and individuals keep track of their expenses on a day to day basis. It documents the daily expenditure and categorises them based on the type of expenses. This leads to a useful analysis on one's expenses.

This project is aimed at developing a desktop-based expense tracking application . This system can be used to store the details of the everyday expenses of an individual or organisation, and generate expense reports weekly or monthly based as per user requirement.

1.2 PURPOSE

The major objective of this project is to create an easy to use application that provides the least resistance to aid in the documentation of the users expenses. Users upon regular documentation can then keep track of their expenditure and its category. The application helps users visualise their expenses thus enabling them to take respective calls based on the information provided.

2 . LITERATURE SURVEY

2.1 EXISTING PROBLEM

The 2 main problems faced with tracking expenses is lack of memory to keep it all in account and its abstract nature that does not allow us to categorise and understand our spending pattern or frequency. One of the major problems with keeping track using hard copies is its inability to automate tasks and totals leading to errors and need to carry it everywhere. The major issue comes with the resistance that comes with disciplined documentation of expenses.

2.2 REFERENCES

1. Expense Tracker - Hrithik, Anant Prakash Singh, Navneet Kumar, Ms.J.Angelin Blessy

Expense Tracker is a day-to-day expense management system designed to easily and efficiently track the daily expenses staff through a computerised system that eliminates the need for manual paper tasks that systematically maintains records and easily accesses data stored by the user. The window application is designed in such a way that the user can effortlessly access it. End users with window running devices can use this software. The language databases used to develop this system are Java (Apache Netbins 11.3) and MySQL Workbench 8.0 CE. This application is a GUI (Graphics User Interface) based application. IThis system is used by any person to control his income expenditure from daily to annual basics.

2. Expense Tracker Mobile Application - Angad Manchanda

The Expense Tracker Mobile Application was developed for iPhone users to keep track of their expenses and determine whether they are spending as per their set budget. Potential users need to input the required data such as the expense amount, merchant, category, and date when the expense was made. Optional data such as sub-category and extra notes about the expense can be entered as well. The application allows users to track their expenses daily, weekly, monthly, and yearly in terms of summary, bar graphs, and pie-charts. This mobile application is a full detailed expense tracker tool that will not only help users keep a check on their expenses, but also cut down the unrequired expenses, and thus will help provide a responsible lifestyle. An analysis comparing existing expense tracking software with the one being introduced is provided.

3. Cloud based Expense Tracker - Asthha Wahal, Muskan Aggarwal

DET is an android app which users can run on their mobile phones and update their daily expenses. Here users can define their own categories for expense types like food, clothing, rent and bills where they have to enter the amount that has been spent and also can add additional information to specify the expense. Users can also define expense categories. They will be able to see a pie chart of expenses. Also, the DET app is capable of clustering. Personal and administration clustering is possible by the use of Apriori algorithm.

4. Online Income and Expense Tracker - S.Chandini, T. Poojitha, D. Ranjith, V.J. Mohammed Akram, M.S. Vani, V. Rajyalakshmi

Users can select the category of expense, and enter other information like captured

photo, location, select amount of expense etc. This is saved to the local database. Users can view and sort expenses as per weekly, monthly, yearly. By using this, we can reduce the manual calculations for their expenses and keep track of the expenditure. The user can provide his income to calculate his total expenses per day and these results will be stored for each unique user. The user can enter his monthly income or limit of monthly Expense as well

5. Daily Expense Tracker Mobile Application - Nuura Najati, Binti Mustafa
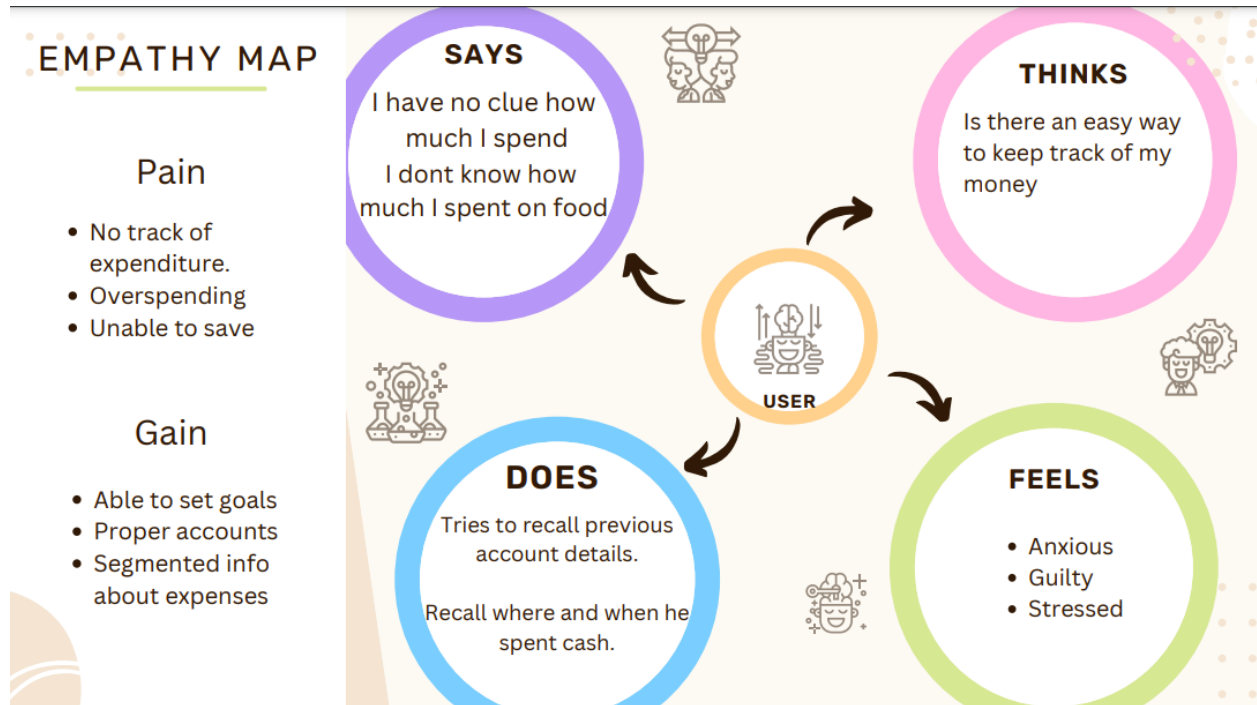
This application implements the Least Squares method which predicts an outcome by finding the best fit line for a set of data. The use of the least squares method will help users in obtaining a successful budget planned with the prediction of the outcome of the budget based on expenses. In addition, this application will incorporate the function of generating a monthly expense report and budget outcome predictions

2.3 PROBLEM STATEMENT DEFINITION

PS	I am (Customer)	I'm trying to	But	Because	Which makes me feel
1	College student	keep account of my expenses	it's hard to organize	there is no proper way to take note	guilty and confused.
2	Influencer	reduce how much I spend in cosmetics	there is no way to find out how much I spend on it	hard to filter from my purchases	annoyed and impatient
3	Software engineer	save	it's hard to pinpoint unwanted expenses	I forget where and when I spend stuff	bad and unaware
4	Middle income wife	spend judiciously	I have no easy way of knowing bank balance	the security is intense and not accessible easily	scared afraid

3. IDEATION & PROPOSED SOLUTION

3.1 EMPATHY MAP AND CANVAS

EMPATHY MAP

Pain
- No track of expenditure.
- Overspending
- Unable to save

Gain
- Able to set goals
- Proper accounts
- Segmented info about expenses

SAYS
I have no clue how much I spend
I dont know how much I spent on food

THINKS
Is there an easy way to keep track of my money

DOES
Tries to recall previous account details.

Recall where and when he spent cash.

FEELS
- Anxious
- Guilty
- Stressed

USER

3.2 IDEATION & BRAINSTORMING

PROBLEM

Many businesses use their own method to keep track of their income and spending because they believe this to be the most important factor in how well their operations are doing.But Due to unawareness and lack of proper applications to suit their privacy,lacking decision making capacity people are using traditional methods.

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.

Brainstorm

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

🕐 10 minutes

Sathwik S

To have a financially solid existence,Secure and Transparent

View spending in real-time and issue notifications.

Link all bank and UPI accounts to keep track of spending

Suhaas Varma

Alerts regarding unreported spending and ways to save

Identifying cost saving oppurtunities and regular updates

High-level privacy protection and credential security

Adithya Lakshmanan

To increase the number of app users, Complex less code

User Friendly UI, Offer better Analytics

Universal and Device diagnostic ,GraphicalReports

Rishi Sunder

Integration with other capable software and accessible

supports all forms of money, including cryptocurrency

Setting alerts and Reminders , Fast data Retrieval

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all
sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is
bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

20 minutes

Attractive Dashboard → **User Interface** → **Light and Dark Mode**

User Interface → **Friendly Animation and Design**

All transactions and information transfers must be encrypted. → **Security** → **Hosting and deploying the application on the IBM Cloud**

Security → **Login using their personal account's**

Adding the Expense Detils — **Personal Expense Tracker** — **Adding the income Details**

Personal Expense Tracker → **Alerting the person if expence is over**

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

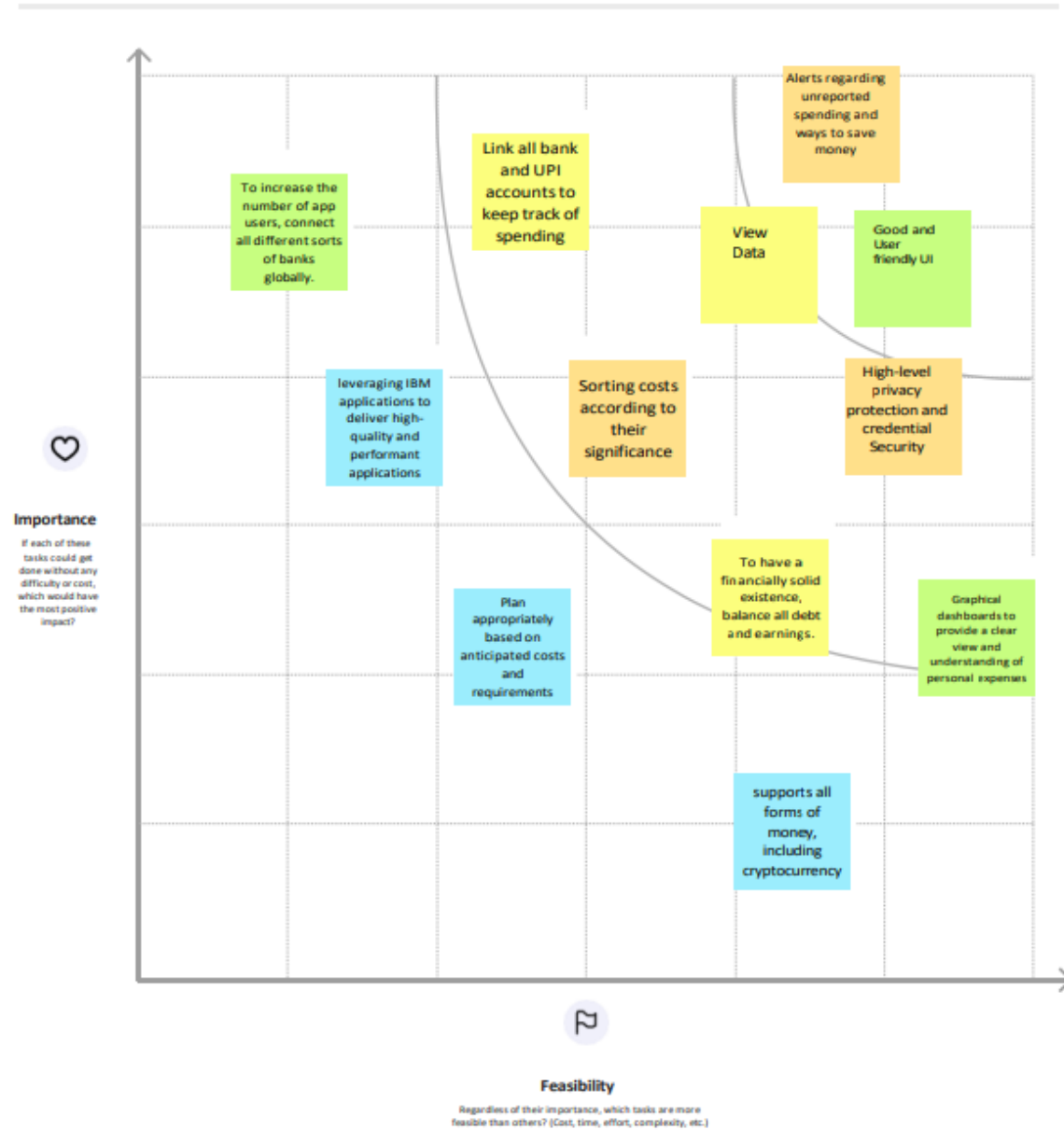If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

- To increase the number of app users, connect all different sorts of banks globally.
- Link all bank and UPI accounts to keep track of spending
- Alerts regarding unreported spending and ways to save money
- View Data
- Good and User friendly UI
- leveraging IBM applications to deliver high-quality and performant applications
- Sorting costs according to their significance
- High-level privacy protection and credential Security
- Plan appropriately based on anticipated costs and requirements
- To have a financially solid existence, balance all debt and earnings.
- Graphical dashboards to provide a clear view and understanding of personal expenses
- supports all forms of money, including cryptocurrency

Feasibility

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

3.3 PROPOSED SOLUTION
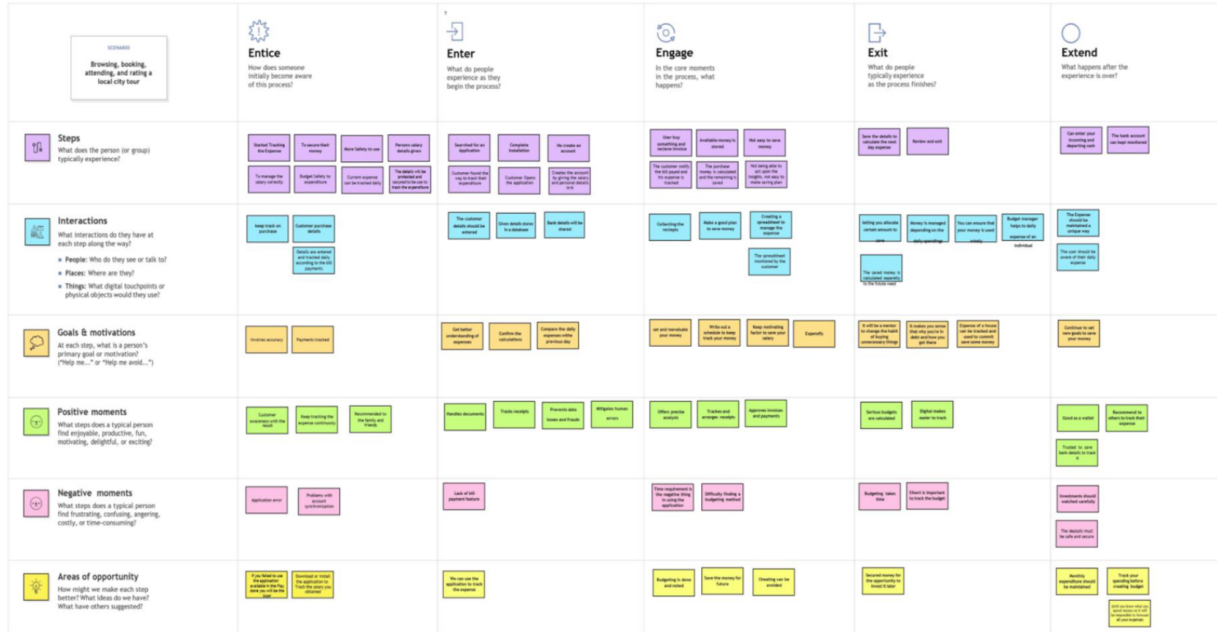
S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	It is difficult to manage monthly expenses on paper. Furthermore, the paper/handwritten notes may be lost.
2.	Idea / Solution description	Application created for large groups of people to use with small or large amounts of data. Also, provide a graphical representation. It sends an alert when an expense exceeds the budget. Create an expense report to track their spending. It will be simple for the user to understand once they see the graphical representation.
3.	Novelty / Uniqueness	When an expense exceeds the budget, the user is notified via email or SMS to the registered email/phone.
4.	Social Impact / Customer Satisfaction	The programme should be able to generate spending reports for users and notify them when they go over their budget. The forecast is intended to be dynamic in order to be created. It also provides users' personal information, earnings, and spending. This programme has the potential to educate ordinary people about money and other topics. Furthermore, this software promotes user financial responsibility. It saves time over manually entering information.
5.	Business Model (Revenue Model)	This application is provided free of charge. There will, however, be some advertising. The premium edition includes additional features and is ad-free.
6.	Scalability of the Solution	This programme is powerful and secure enough to handle a large number of users and data. This programme can be configured for both large and small-scale applications. Accessible from a variety of devices.

5.	Business Model (Revenue Model)	This application is provided free of charge. There will, however, be some advertising. The premium edition includes additional features and is ad-free.
6.	Scalability of the Solution	This programme is powerful and secure enough to handle a large number of users and data. This programme can be configured for both large and small-scale applications. Accessible from a variety of devices.

3.4 PROBLEM SOLUTION FIT

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) `CS`
Who is your customer?
i.e. working parents of 0-5 y.o. kids

- Earning members of society
- Anyone who spends money
- Financers

6. CUSTOMER CONSTRAINTS `CC`
What constraints prevent your customers from taking action or limit their choices
of solutions? i.e. spending power, budget, no cash, network connection, available devices.

- Laziness
- Complexity
- Lack of memory
- Lack of information

5. AVAILABLE SOLUTIONS `AS`
Which solutions are available to the customers when they face the problem

or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

1. Use digital notepad: hard to get meaningful data.
2. Pen paper : hard to keep track can get lost.
3. Excel : poor accessibility and need to customize functions

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS `J&P`
Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

- We give them an organised platform to update their daily expenses.
- Produce useful data and patterns to help reflect expense
- Incorporate online payments

9. PROBLEM ROOT CAUSE `RC`
What is the real reason that this problem exists? What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

- Lack of a strong memory
- Inability to recall
- Laziness to make note of at the end of the day
- No track of expenditure

7. BEHAVIOUR `BE`
What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

- Make inaccurate estimates
- Keep track of withdrawals
- Use diaries and manual calculations

Focus on J&P, tap into BE, understand RC

3. TRIGGERS `TR`
What triggers customers to act? i.e. seeing their neighbor installing solar panels, reading about a more efficient solution in the news.

- The need to keep track
- Understanding their expenses

4. EMOTIONS: BEFORE / AFTER
How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

- Anxious, Guilty, Scared (Before)
- Incontrol, happy, relieved(After)

10. YOUR SOLUTION `SL`
If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behavior.

- Online app to keep easy track
- Produce efficient info and suggestions to save

8. CHANNELS of BEHAVIOUR `CH`
8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

- Online:
  - easy access
  - computing is automatic

- Offline:
  - security in hard copies
  - privacy
  - keep a mental note

4. REQUIREMENT ANALYSIS

| SCENARIO Browsing, booking, attending, and rating a local city tour	Entice How does someone initially become aware of this process?	Enter What do people experience as they begin the process?	Engage In the core moments in the process, what happens?	Exit What do people typically experience as the process finishes?	Extend What happens after the experience is over?
Steps What does the person (or group) typically experience?	Started Tracking the Expense / To secure their money / Allow Safety to use / Person salary details given; To manage the salary correctly / Budget Safety to expenditure / Current expense can be tracked daily / The details will be protected and secured to be use to track the expenditure	Searched for an application / Complete Installation / No create an account; Customer found the way to track their expenditure / Customer Opens the application / Creates the account by giving the salary and personal details bills	User buy something and reclaims invoice / Available money is stored / Not easy to save money; The customer verify the bill payed and his expense is tracked / The purchase money is calculated and the remaining is saved / Not being able to act upon the insights, not easy to make saving plan	Save the details to calculate the next day expense / Review and exit	Can enter your incoming and departing cash / The bank account can kept mentioned
Interactions What interactions do they have at each step along the way? People: Who do they see or talk to? Places: Where are they? Things: What digital touchpoints or physical objects would they use?	Keep track on purchase / Customer purchase details; Details are entered and tracked daily according to the bill payments	The customer details should be entered / Given details stores in a database / Bank details will be stored	Collecting the receipts / Make a good plan to save money / Creating a spreadsheet to manage the expense; The spreadsheet monitored by the customer	Letting you allocate certain amount to save / Money is managed depending on the daily spending / You can ensure that your money is used wisely / Budget manager helps to daily expense of an individual; The saved money is calculated expense to the future need	The Expense should be maintained a unique way / The user should be aware of their daily expense
Goals & motivations At each step, what is a person's primary goal or motivation? ("Help me..." or "Help me avoid...")	Involve accuracy / Payments tracked	Get better understanding of expenses / Confirm the calculation / Compare the daily expenses of the previous day	Set and reevaluate your money / Write out a schedule to keep track your money / Keep motivating factor to save your salary / Expensify	It will be a mentor to change the habit of buying unnecessary things / It makes you sense that why you're in debt and how you get there / Expense of a house can be tracked and used to control save some money	Continue to set new goals to save your money
Positive moments What steps does a typical person find enjoyable, productive, fun, motivating, delightful, or exciting?	Customer awareness with the result / Keep tracking the expense continuously / Recommended to the family and friends	Handles documents / Tracks receipts / Prevents data losses and frauds / Mitigates human errors	Offers precise analysis / Tracks and arranges receipts / Approves invoices and payments	Serious budgets are calculated / Digital makes easier to track	Good as a wallet / Recommend to others to track their expense; Trusted to save bank details to track it
Negative moments What steps does a typical person find frustrating, confusing, angering, costly, or time-consuming?	Application error / Problem with account synchronization	Lack of bill payment feature	Time requirement is the negative thing in using the application / Difficulty finding a budgeting method	Budgeting takes time / Effort is important to track the budget	Investments should watched carefully / The details must be safe and secure
Areas of opportunity How might we make each step better? What ideas do we have? What have others suggested?	If you failed to use the application a waste in the bill / Download or install the application to Track the data you stored	We can use the application to track the expense	Budgeting is done and noted / Save the money for future / Cheating can be avoided	Secured money for the opportunity to invest it later	Monthly expenditure should be maintained / Track your spending before creating budget; With an hour what you spend money on it will be expendful in Future of save money

4.1 SOLUTION & TECHNICAL REQUIREMENTS

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	User should Register using their Email.
FR-2	Login	Enter username (Email) and password
FR-3	Select Method	Two methods are provided 1-Manual (Manually Enter the expenses) 2-Bank (Link Bank Account)
FR-4	Manual Method	Manually user can enter the expenses by using voice recognition by simply saying category and amount spent on that also can use Barcode Scanner by using Bill provided while purchasing.
FR-5	Bank Method	In Bank method user have to Enter their Bank details in prior and all the Bank using transactions are detected and tracker accordingly.
FR-6	Expense Tracker	This application should graphically represent the expense in the form of report.
FR-7	Report generation	Graphical representation of report must be generated.
FR-8	Category	This application shall allow users to add categories of their expenses.

5. PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS
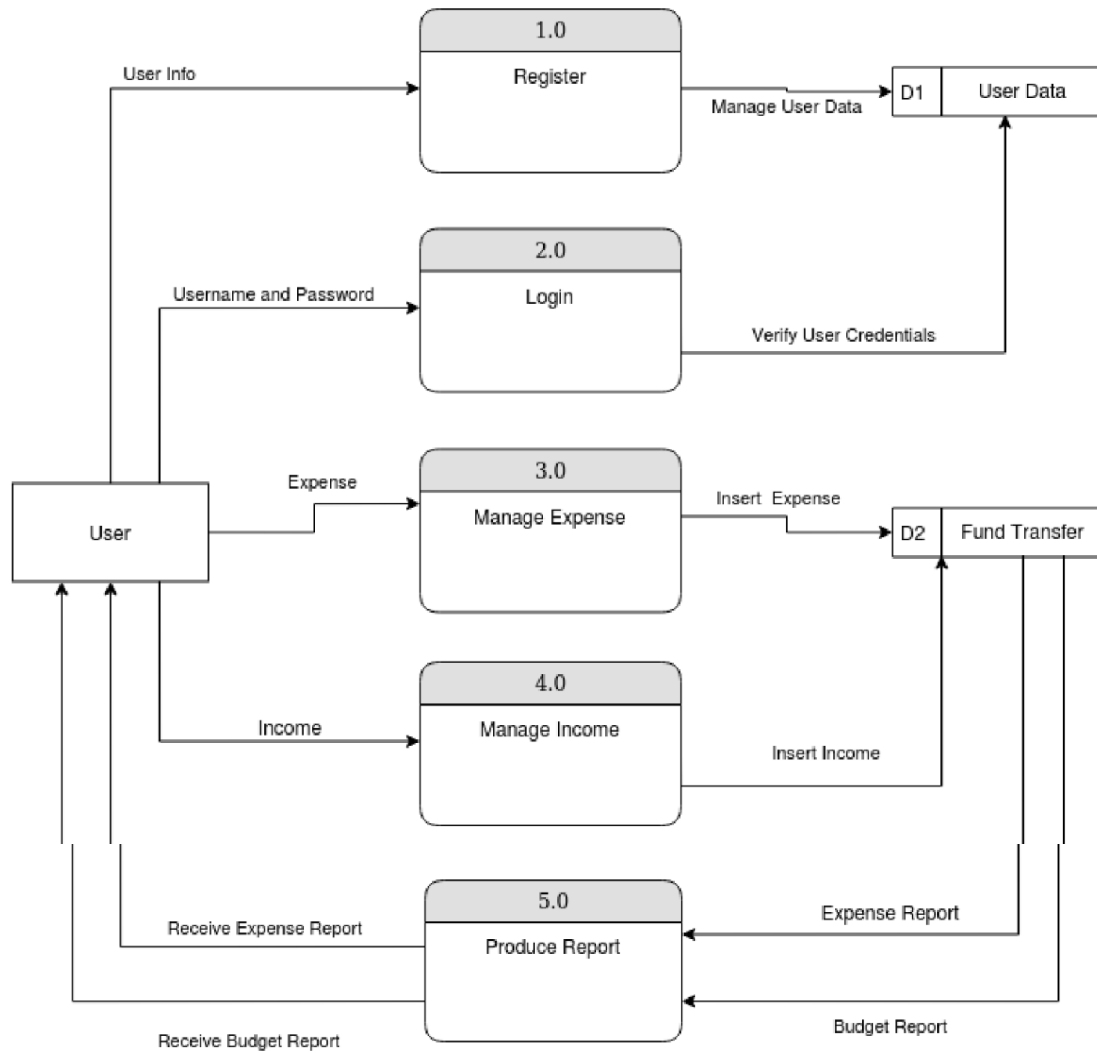
SOLUTION ARCHITECTURE
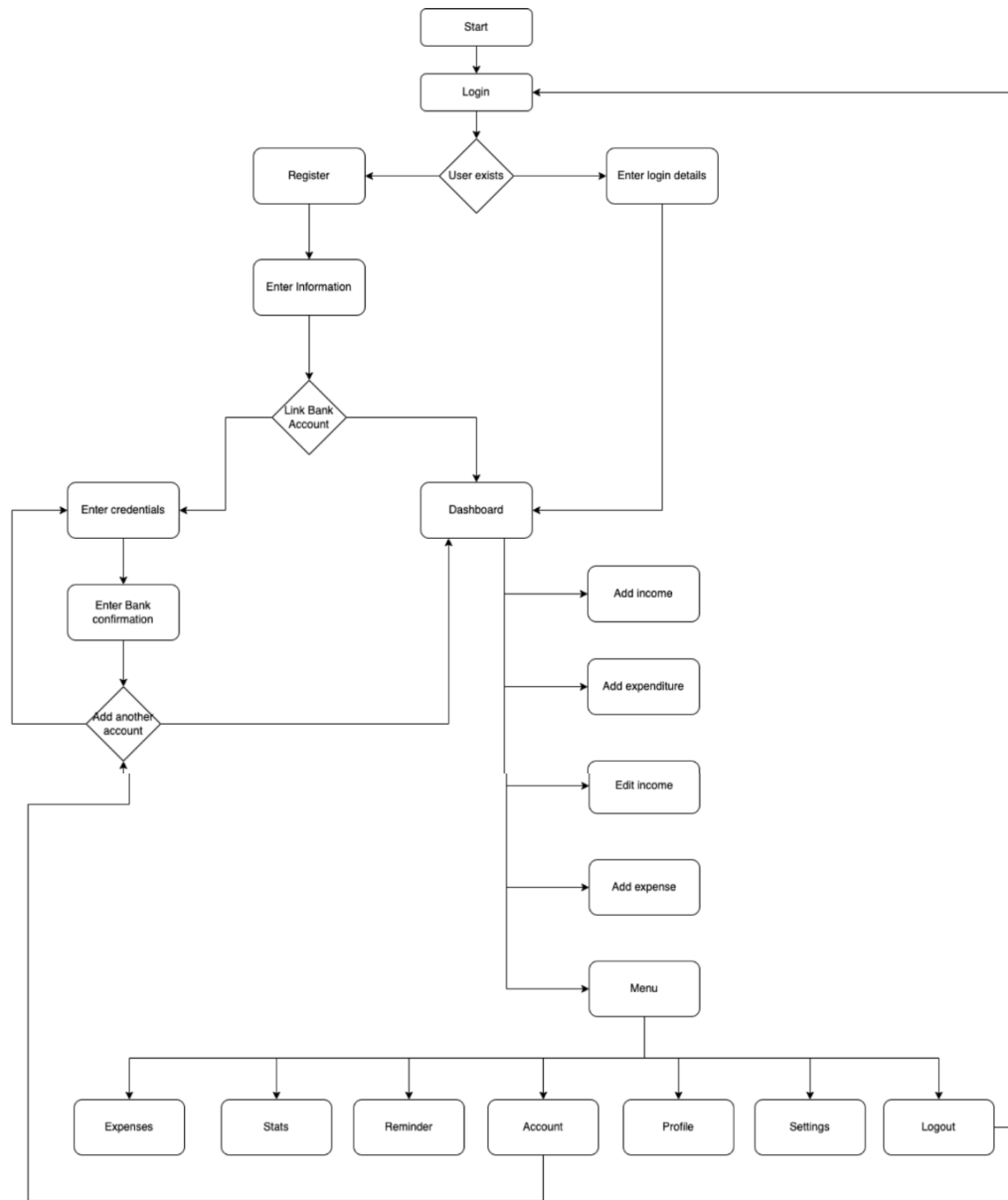
5.2 TECHNICAL ARCHITECTURE

Technical Architecture:

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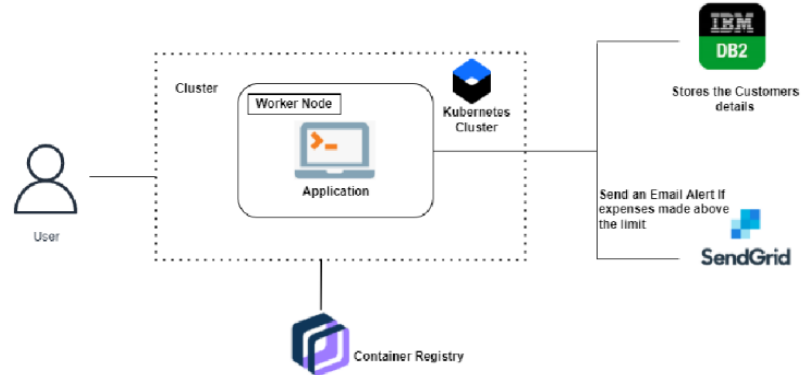
5.3 USER STORIES

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Web user)	Registration	USN-1	By providing my email address, a password, and a password confirmation, I can register for the application as a user.	I can access my account / dashboard	High	Sprint-1
		USN-2	I can sign up for the application as a user by email.	I can access my account / dashboard	Medium	Sprint-1

	Confirmation	USN-3	I will receive a confirmation email once I have registered for the application.	I can get a confirmation for my email and password and create an authenticated account.	Medium	Sprint-1
	Login	USN-4	By entering the registered email address and password, I can access the application as a user.	I can log onto the application with the verified email and password	High	Sprint-1
	Dashboard	USN-5	As a user, I can view the products which are available.	Once I log on to the application, I can view the inventory.	High	Sprint-2
	Stock Update	USN-6	I can add items to the stock list as a user that aren't listed in the dashboard.	If any of the products are not available, as a user I can update the inventory.	Medium	Sprint-2
	Sales Prediction	USN-7	I can access a sales forecasting tool as a user, which will enable me to more accurately forecast the volume of orders.	The sales prediction tool should forecast the sales so that I, as a User, can order appropriately.	Medium	Sprint-3

Administrator	Request to Customer Care	USN-8	I can contact the Administrator as a user and request any assistance I need with services.	As a user, I can contact Customer Care and get support from them.	Low	Sprint-4
	Give feedback	USN-9	I should be able to report any difficulties I encounter.	As user, I can give my support in my possible ways to the administrator and to the administration.	Medium	Sprint-4

6. 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.	3	High	Sathwik
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	3	High	Venkata Suhaas Varma
Sprint-1	Login	USN-3	As a user, I can log into the application by entering email & password	5	High	Rishi sunder
Sprint-1	Dashboard & Logout	USN-4	As a user, once I logged in I can access all the features of the web app and Logout once I completed all the work.	5	High	Adithya Lakshmanan
Sprint-1		USN-5	Once logged In, Keep me logged for few hours to avoid repeated login if the page is refreshed	4	Medium	Rishi sunder
Sprint-2	Expense	USN-6	Add total income for the month and Allow for edit option	6	High	Sathwik
Sprint-2		USN-7	Split the total income based on usage like entertainment, food, shopping etc.	2	Low	Venkata Suhaas Varma
Sprint-2		USN-8	Add the day to day expense.	6	High	Adithya Lakshmanan

Sprint-2		USN-9	Display the user added expense	6	High	Adithya Lakshmanan
Sprint-3		USN-10	Filter the expense data based on criteria	6	Medium	Split Between 4

Date	18 October 2022
Team ID	PNT2022TMID35228
Project Name	Project - Personal Expense Tracker
Maximum Marks	8 Marks

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

6.2 SPRINT DELIVERY SCHEDULE

TITLE	DESCRIPTION	DATE
Literature Survey & Information Gathering	A literature review is a comprehensive summary of previous research on a topic. The collection/gathering of relevant information based on our project use case and by referring the existing solutions etc.	13 OCTOBER 2022
Prepare Empathy Map	Empathy map canvas is prepared to identify the customer or user's Pains & Gains and their feelings and thinking and list of problem statement is prepared.	13 OCTOBER 2022
Ideation	In ideation ,Ideas are listed in 3 steps like the first step is problem statement , second step is brainstorming, idea listing and grouping and third step is Idea prioritization based on the feasibility & importance are prepared and submitted for review	13 OCTOBER 2022

Proposed Solution	Proposed solution includes the problem statement, idea, novelty, Customer satisfaction, business model, social impact, scalability of solutions are prepared	13 OCTOBER 2022
Problem Solution Fit	In problem-solution fit document include is customer segment, problems, triggers, Emotions before and after, available solutions, Customerconstraint, Behavior, problem root cause, your solution these things are prepared.	18 OCTOBER 2022

Solution Architecture	Prepare solution architecture document is prepared	17 OCTOBER 2022

Customer Journey	Customer journey helpful to identify and understand the user interactions, goals and opportunities, positive and negative moments & experiences with the application (entry to exit).	15 OCTOBER 2022
Functional Requirement	Functional requirement document having the functionalities and non-functionalities of our project	16 OCTOBER 2022
Data Flow Diagrams	Data flow diagrams show the flow of our project and it has been done and submitted for review.	1 NOVEMBER 2022

Technology Architecture	Technology Architecture has been done and submitted for review.	18 OCTOBER 2022

Prepare Milestone & Activity List	Prepared the milestones & activity list of the project.	3 NOVEMBER 2022
Project Development - Delivery of Sprint-1, 2, 3 & 4	Develop & submit the developed code by testing it.	IN PROGRESS..

6.3 REPORTS FROM JIRA

Creation of the backlog (issues) for the project:
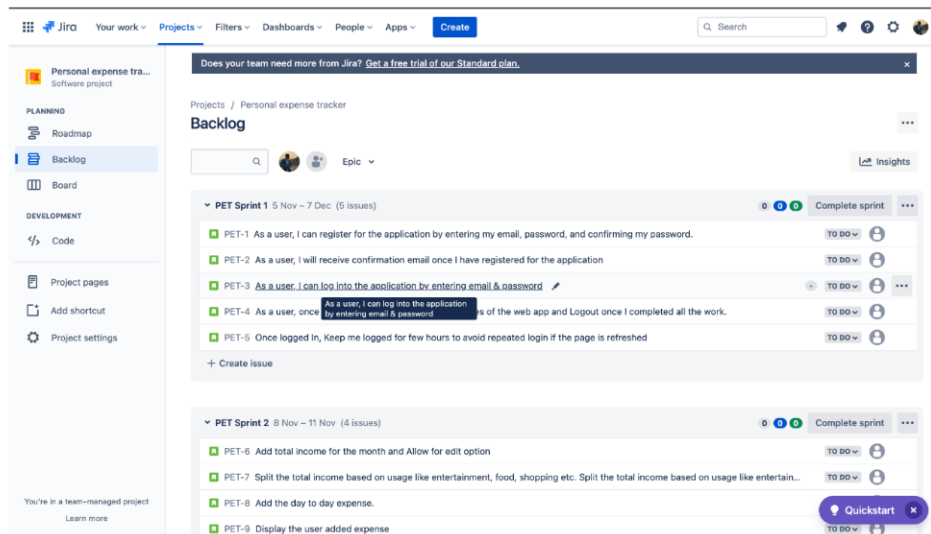
Creation of the scrum boards for the project:
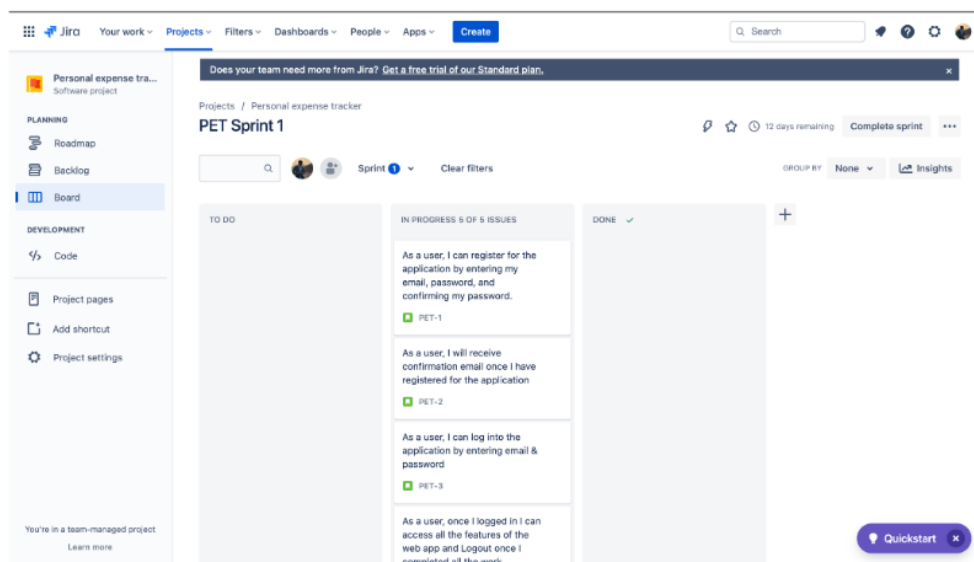
Burndown for the project:

Understand the burndown insight

Sprint burndown   ⌄

7 points done, 19 points to go   ✓ On track

100%
80%
60%
40%
20%
0%

Jun 3   Jun 21
● Remaining work   ● Guideline
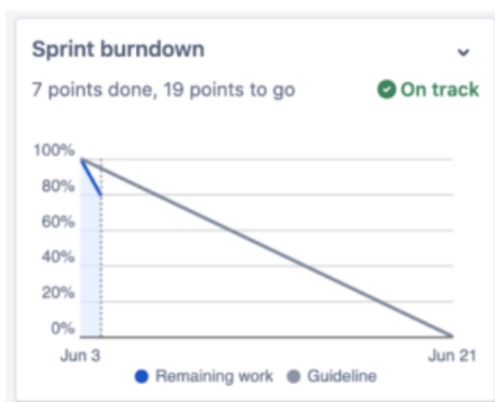
📑 Not seeing this insight? Add estimates to your issues in order to calculate your sprint burndown. If you've added estimates after your sprint has started, you'll need to update the sprint's start and end date in the backlog to view this data. Learn more about adding estimates.

8.TESTING

8.1 TEST CASES

1. Login with incorrect credentials
2. Signup with an already existing mail ID
3. Signup with wrong form data entered
4. Entering homepage with logged out session
5. Delete expense trigger change in graph
6. Add expense without choosing category

8.2 USER ACCEPTANCE TESTING

S. No	Test Case id	Feature Type	Test description	Input test Data	Actual output	Expected output	Remarks
1	TC – RG 01	Functional	Register for application by enteringmy name,email, password, monthly limit	User1 User1@gmail.com **** * 5000	Registration successful	Registration successful	pass
2	TC – SI 01	Functional	Log into the application by entering Email & password	User1@gmail.com *****	Login successful	Login sucessfull	pass
3	TC – ST 01	UI	View myentire expenses throughout a particular period oftime		Expensesare displayed for particular time	Expensesare displayed for particular time	pass

4	TC – DB 01	UI	Display graph in dashboard		Graph is displayed	Graph is displayed	pass
5	TC – ST 02	Functional	Generate reports based on my previous expenditures		Reports generated in graphical form	Reports generated in graphical form	pass
6	TC – SI 02	Functional	Can logout		Go to sign page	Sign in page displayed	pass
7	TC – ST 03	Functional	Create expense	14-11-2022 100 Food	Expenses created	Expenses created	pass
8	TC – ST 04	Functional	Can edit ,delete, update expense		Expenses updated	Updated of expenses	pass
9	TC – ST 05	UI	Can view Credit and debit expenses separately.		Expenses are listed separately	Expenses are listed separately	pass
10	TC – ST 06	UI	Aware of the expense that I spend the most on		Expenses are listed for particular category	Expenses are listed for particular category	pass
11	TC – PG 01	Functional	Able to update my set monthly limit		Monthly limit updated	Monthly limit updated	pass
12	TC – PG 01	UI	Able to View my profile		Profile details displayed	Profile details displayed	pass

9.RESULTS
9.1 PERFORMANCE METRICS
1. Tracking income and expenses: Monitoring the income and tracking all expenditures (through bank accounts, mobile wallets, and credit & debit cards)
2. Transaction Receipts: Capture and organize your payment receipts to keep track of your expenditure.
3. Organizing Taxes: Import your documents to the expense tracking app, and it will streamline your income and expenses under the appropriate tax categories.
4. Payments & Invoices: Accept and pay from credit cards, debit cards, netbanking, mobile wallets, and bank transfers, and track the status of your invoices and bills in the mobile app itself. Also, the tracking apps ends reminders for payments and automatically matches the payments with invoices.
5. Reports: The expense tracking app generates and sends reports to give a detailed insight about profits, losses, budgets, income, balance, sheets, etc.
6. Ecommerce integration: Integrate your expense tracking app with your eCommerce store and track your sales through payments received via multiple payment methods.
7. Vendors and Contractors: Manage and track all the payments to the vendors and contractors added to the mobile app

10.ADVANTAGES & DISADVANTAGES

1. Achieve your business goals with a tailored mobile app that perfectly fits your business.
2. Scale-up at the pace your business is growing.
3. Deliver an outstanding customer experience through additional control over the app.
4. Control the security of your business and customer data
5. Open direct marketing channels with no extra costs with methods such as push notifications.
6. Boost the productivity of all the processes within the organization.
7. Increase efficiency and customer satisfaction with an app aligned to their needs.
8. Seamlessly integrate with existing infrastructure.
9. Ability to provide valuable insights.
10. Optimize sales processes to generate more revenue through enhanced data collection.

11.CONCLUSION

From this project, we are able to manage and keep tracking the daily expenses as well as income. While making this project, we gained a lot of experience of working as a team. We discovered various predicted and unpredicted problems and we enjoyed a lot solving them as a team. We adopted things like video tutorials, text tutorials, internet and learning materials to make our project complete.

12.FUTURE SCOPE

The project assists well to record the income andexpenses ingeneral. However, this project has some limitations:
1. The application is unable to maintain the backup of data once it is uninstalled.
2. This application does not provide higher decision capability.

To further enhance the capability of this application, we recommend the following features to be incorporated into the system:
1. Multiple language interface.
2. Provide backup and recovery of data.
3. Provide better user interface for user.
4. Mobile apps advantage.

13.APPENDIX

13.1 SOURCE CODE

https://github.com/IBM-EPBL/IBM-Project-50719-1660922676

13.2GITHUB & PROJECT DEMO LINK

https://drive.google.com/file/d/1gagGjltRs8Oq46C2UgURru5_Xkf1UnZe/view?usp=sharing