PROJECT REPORT

Anand Institute of Higher Technology

DEPARTMENT:

COMPUTER SCIENCE AND ENGINEERING

PROJECT NAME

PERSONAL EXPENSE TRACKER APPLICATION

TEAM ID: PNT2022TMID37101

TEAM MEMBERS

| ROLE | NAME | REGISTER NO |
|---------------|------------------|--------------|
| TEAM LEADER | ArunYogesh M | 310119104011 |
| TEAM MEMBER 1 | HARIVISHWESH K | 310119104037 |
| TEAM MEMBER 2 | JEGADEESHWARAN S | 310119104040 |
| TEAM MEMBER 3 | DHINESH M | 310119104028 |
| | | |

CONTENTS

INTRODUCTION

- Project Overview
- Purpose

LITERATURE SURVEY

- · Existing problem
- References
- Problem Statement Definition

IDEATION & PROPOSED SOLUTION

- Empathy Map Canvas
- Ideation & Brainstorming
- · Proposed Solution
- · Problem Solution fit

• REQUIREMENT ANALYSIS

- Functional requirement
- Non-Functional requirements

PROJECT DESIGN

- Data Flow Diagrams
- Solution & Technical Architecture
- User Stories

PROJECT PLANNING & SCHEDULING

- Sprint Planning & Estimation
- Sprint Delivery Schedule
- Reports from JIRA

• CODING & SOLUTIONING (Explain the features added in the project along with code)

- Feature 1
- Feature 2
- Database Schema (if Applicable)

TESTING

- Test Cases
- User Acceptance Testing
- RESULTS
 - Performance Metrics
- ADVANTAGES & DISADVANTAGES
- CONCLUSION
- FUTURE SCOPE
- APPENDIX

Source Code

GitHub & Project Demo Link

Ideation Phase Define the Problem Statements

| Date | 19 September 2022 |
|---------|-------------------|
| Team ID | PNT2022TMID37101 |

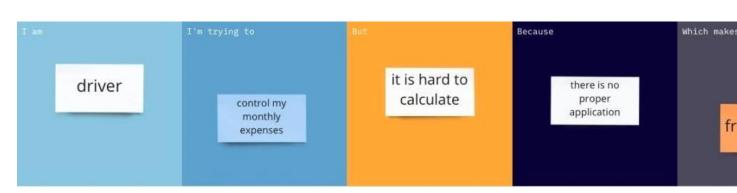
| Project Name | PersonalExpenseTrackerApplication |
|---------------|-----------------------------------|
| Maximum Marks | 2 Marks |

Customer Problem Statement Template:

Create a problem statement to understand your customer's point of view. The Customer Problem Statement template helps you focus on what matters to create experiences peoplewill love.

A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.





| S.N O | Title, Publication and Authors | Techniqu es& Mechanism | Paramet er Analysi | Too ls | Findin gs |
|----------|--------------------------------------|------------------------------|--------------------------|-----------|--------------|
| | | S | S | | |

| 1 | Spending Tracker: ASmart Approach to | YNAB and Penny AI | YNAB is an amount tracker | Java (Apache Netbeans 11.3) and | Have multi- language features. |
|---|--|-------------------------|---|--|---|
| | Track Daily Expense, Vol.12 No.6 (2021), | | that automatical ly tracks our | My SQL Workbench. | The main feature of this app is that you can track your |
| | UDAY PRATAP SINGH, AAKASH KUMAR GUPTA, DR B.BALAMURUG | | expenses through our bank account or credit card | | expense by the mentionin g date, month and year. |
| 2 | AN A Novel Expense Tracker using Statistical Analysis, June 2021 IJIRT Volume 8 Issue 1 ISSN: 2349-6002, MUSKAAN SHARMA , AYUSH BANSAL, DR. RAJU RANJAN , SHIVAM SETHI4 | Statistic al Analysi s | In which using excel accounting team designed a Cost Allocation tool1 in which a spreadsheet is used to allocatethe product category both by site and the cooperation and a Cost allocation tool 2 which is a developed to further integrate and allocate cost toidentify which manufacturer isprofitable to use. | Excel,CAT tool,CSS and xml technologies. | Keep tracking daily expenses and budgeting; B)Save money for necessary expenses which in return will help toplan the future investment s. |

| | 3 | Expense Tracker, MAY 2021 IRE Journals Volume 4Issue 11 ISSN: 2456- 8880, ATIYA KAZI, PRAPHULLA S. KHERADE, RAJ S.VILANKAR3, PARAG M. SAWANT, | Digital record System | Generates a monthly report of the expenses in PDF format. | Angular 8 for front end and SQL Lite for backend. | Users are provided with three options for data entry namely Income, Expense and Wish List. The remainder isset if the type future expense. |
|--|---|---|-----------------------------|---|---|--|
|--|---|---|-----------------------------|---|---|--|

| 4 | A D ' | C 1 | D 4 | A 1 | F' 1 |
|---|------------------|------------|---------------|---------------|-------------------|
| 4 | A Review on | Google | Do not | Angular | Firebase |
| | BudgetEstimator | places AP, | required | ionic | Authentication |
| | Android | Haversine | any GPU | framework. | tosign in a user |
| | Application | Algorithm | support to | | by sending an |
| | | | run this | | SMS message to |
| | International | | application | | the user's phone. |
| | Research Journal | | , themajor | | Send a |
| | of Engineering | | advantage | | verification code |
| | and Technology | | is when we | | to the user's |
| | (IRJET) | | develop | | phoneand verify |
| | , | | any | | it. |
| | NAMITA | | application | | |
| | JAGTAP, | | using | | |
| | PRIYANKA | | angular | | |
| | JOSHI, ADITYA | | ionic | | |
| | KAMBLE | | framework | | |
| | KANDLL | | then it has | | |
| | | | | | |
| | | | capability | | |
| | | | to run on | | |
| | | | all | | |
| | | | platforms | | |
| | | | like | | |
| | | | android, | | |
| | | | Ios, | | |
| | | | windows. | | |
| 5 | Expense Tracker | | The least | Net Beans for | In this |
| | | Least | squares | Java, PHP, | application,there |
| | International | Square | methodis a | HTML5 and | are 3 logins such |
| | Journalof | Algorith | statistical | JavaScript, | as admin, |
| | Advanced | m | procedure | Dreamweaver, | manager and |
| | Research in | | to find the | MySQL(XAMPP | staff.Admin has |
| | Science, | | best fitfor a | | the privilege to |
| | Communication | | set of data | , | add, edit, delete |
| | | | Set of Guid | | manager, add, |
| | l | l | l | | agor, ada, |

| | | T | 1 | | |
|---|--|-------------------------|--|-----------------|---------------------|
| | andTechnology | | points by | | edit, delete staff, |
| | (IJARSCT) | | minimizing | | and to get all |
| | Volume 9, Issue 4, | | thesum of | | custom reports. |
| | September 2020. | | the offsets | | For Manager, the |
| | | | or | | privileges are to |
| | PROF MIRIAM | | residuals | | add type of |
| | THOMAS, | | of points | | expense, verify |
| | LEKSHMI P, | | from the | | expense, add |
| | ANDDR. | | plotted | | typeof income, |
| | MAHALEKSHM | | curve. | | verifyincome |
| | IT | | Least | | and generate |
| | | | squares | | reports. For staff, |
| | | | regression | | the privileges are |
| | | | is used to | | to add and edit |
| | | | predict the | | expense, income |
| | | | behaviour | | and calculations, |
| | | | of | | and send for |
| | | | dependent | | verifications |
| | | | variables | | Verifications |
| 6 | Student | Digital | This | Android studio | The application |
| | expe | record | android | for the front | size is less than |
| | nsetracking | System | application | endand | 20MB. It doesn't |
| | application | and | canbe used | Firebase forthe | need any high- |
| | | | | | |
| | | Statistical | on all | backend | |
| | HARIIE- | Statistical Analysis | on all android | backend | endhardware |
| | IJARIIE- ISSN(O)-2395- | Statistical Analysis | android | backend | |
| | ISSN(O)-2395- | | android devices | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 | | android devices above | backend | endhardware |
| | ISSN(O)-2395- | | android devices above android | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 Issue-2 2022. | | android devices above | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 Issue-2 2022. | | android devices above android | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 Issue-2 2022. SAUMYA DUBEY, | | android devices above android | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 Issue-2 2022. SAUMYA DUBEY, PRAGYA | | android devices above android | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 Issue-2 2022. SAUMYA DUBEY, PRAGYA DUBEY, | | android devices above android | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 Issue-2 2022. SAUMYA DUBEY, PRAGYA DUBEY, RIGVED | | android devices above android | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 Issue-2 2022. SAUMYA DUBEY, PRAGYA DUBEY, RIGVED RISHABH | | android devices above android | backend | endhardware |
| | ISSN(O)-2395- 4396, Vol-8 Issue-2 2022. SAUMYA DUBEY, PRAGYA DUBEY, RIGVED | | android devices above android | backend | endhardware |

| 7 | Expense | View Analytics | It also have | Java, Xml, | The proposed |
|---|-----------------|----------------|--------------|------------|----------------|
| | Tracker | , | added a | MySQL | system should |
| | Application | | special | | provide |
| | | | feature | | different |
| | March 2021 | | which will | | categories for |
| | IJIRT Volume 7 | | distributes | | the user to |
| | Issue 10 | | your | | select from |
| | ISSN: 2349-6002 | | expenses in | | and they can |
| | | | different | | enterthe |
| | VELMURUGAN.R1 | | categories | | amount and |
| | , MRS.P.USHA | | suitable for | | mode of |
| | | | theuser. An | | payment.This |
| | | | expense | | system should |

| | | | historywill also be provided in application. | | be able to analyze the information, provide analytics on which categorydid the user spent most of their money |
|---|---|---|---|---|--|
| 8 | Expense Tracker: ASmart Approach to Track Everyday Expense Easy Chair PreprintDecember 25, 2020 HRITHIK GUPTA, ANANT PRAKASH SINGH, NAVNEET KUMAR AND J. ANGELIN BLESSY | YNAB and Penny AI, The waterfall model | Have developed the necessary system to workwithout internet. We need a database, desktop, application anduser to use this system. | Java (Apache Netbeans 11.3) and My SQL Workbench 8.0CE | Expense Tracker application havefive entities: expense, user, backup, notification, transaction. |
| 9 | D2D Expense Tracker Application | YNAB and Penny Techniques | D2D applications provide day byday updates to the user regarding their expenses. | Android Studio,SQ Lite, Java JDK, Eclipse | Provide billing tothe user regarding their transactions and Expesnes. |

Ideation Phase Empathize & Discover

| Date | 19 September 2022 |
|---------------|--------------------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 4 Marks |

Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's

behaviours and attitudes. It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person whois experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

Our Empathy Map Link:

https://app.mural.co/invitation/mural/personalexpensetrackerapplic5658/166356301 HYPERLINK

"https://app.mural.co/invitation/mural/personalexpensetrackerapp lic5658/1663563019680?sender=u3a9e9e40ae182c72a1e95502&k ey=8204d041-6c62-4f6a-b415-

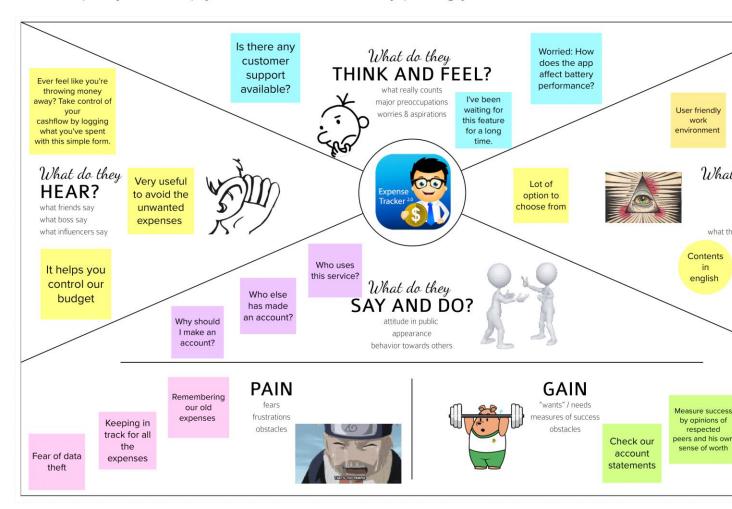
<u>8d3ee5fdfb62"9680?sender=u3a9e9e40ae182c72a1e95502</u> <u>HYPERLINK</u>

"https://app.mural.co/invitation/mural/personalexpensetrackerapp lic5658/1663563019680?sender=u3a9e9e40ae182c72a1e95502&k ey=8204d041-6c62-4f6a-b415-8d3ee5fdfb62"& HYPERLINK "https://app.mural.co/invitation/mural/personalexpensetrackerapp lic5658/1663563019680?sender=u3a9e9e40ae182c72a1e95502&k ey=8204d041-6c62-4f6a-b415-8d3ee5fdfb62"key=8204d041-6c62-4f6a-b415-8d3ee5fdfb62

Empathy Map Canvas

Gain insight and understanding on solving customer problems.

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



Ideation Phase
Brainstorm & Idea Prioritization Template

| Date | 19 September 2022 |
|---------------|--------------------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 4 Marks |

Brainstorm & Idea Prioritization Template:

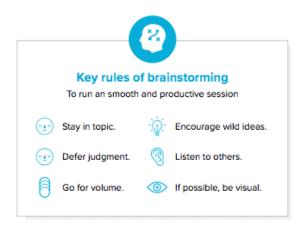
Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, 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.

Step-1: Team Gathering, Collaboration and Select the Problem Statement



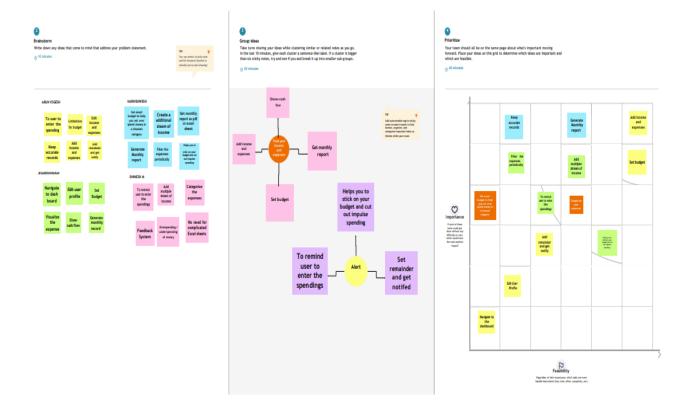
Define your problem statement

In simple words, 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 with budgeting 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 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.



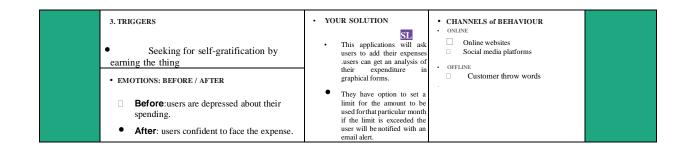
Step-2: Brainstorm, Idea Listing and Grouping

Step-3: Idea Prioritization



PERSONAL EXPENSE TRACKER APPLICATION

TEAM ID: PNT2022TMID37101



Project Design Phase-I Proposed Solution Template

| Date | 19 September 2022 |
|---------------|------------------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Project - Personal Expense Tracker |
| | Application |
| Maximum Marks | 2 Marks |

Proposed Solution Template:

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

| S.No. | Parameter | Description |
|-------|--------------------------------|--|
| 1. | Problem Statement (Problem | Can't receive notifications properly. |
| | to besolved) | The transaction have not been |
| | | updated properly |
| 2. | Idea / Solution description | Personal finance applications will ask |
| | | users to add their expenses and based on |
| | | their expensesbalance 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 |
| | | emailalert |
| 3. | Novelty / Uniqueness | Notification can be receive through email. |
| 4. | Social Impact / Customer | Personal Expense Tracker apps and design |
| | Satisfaction | to bemore user friendly and to enhance |
| | | customer experience so that more people |
| | | can transact and fulfill their essential |
| | | banking needs through |
| | | mobile app. This will make a impact on |
| | | MobileBanking for Customers' Satisfaction. |
| 5. | Business Model (Revenue Model) | The Personal Expense Tracker app is a |
| | | businessmodel .but, Each people need to |
| | | use the |
| | | finance app to gain the benefit. |
| 6. | Scalability of the Solution | Yes, it is scalable solution. we will |
| | | developproject to get a better user |
| | | experience. |

Project Design Phase-II Technology

Requirement

| Date | 14 October 2022 |
|--------------|--------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Personal Expense Tracker |
| | Application |

Technology Architecture

Project Design Phase-II Data Flow Diagram & User Stories

| Date | 05 October 2022 |
|---------------|--------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Personal Expense Tracker |
| | Application |
| Maximum Marks | 4 Marks |

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.

User Stories

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

| User Type | Functional | User | User Story / Task | Acceptance | Priority | Release |
|---------------|--------------|---------|-------------------------------|------------------|-----------|---------|
| | Requirement | | | criteria | | |
| | (Epic) | Number | | | | |
| Customer | Registration | USN-1 | As a user, I can | I can access | High | |
| (Mobile | | | register for | my | | |
| us | | | the application | account/dashboa | | |
| er | | | by entering | | | |
| and web user) | | | my email and | rd | | |
| | | | confirming | | | |
| | | | my password. | | | |
| | | USN-2 | As a user, I | I can receive a | High | |
| | | | will receive a | a | | |
| | | | confirmation | confirmation | | |
| | | | email once I | | | |
| | | | have | email & click | | |
| | | | registered for | | | |
| | | | the | C' | | |
| | | LICNI 2 | application | confirm | Τ | |
| | | USN-3 | As a user, I can register for | I can register & | Low | |
| | | | the | | | |
| | | | applicatio | access th | | |
| | | | n through | e | | |
| | | | Facebook | dashboard with | | |
| | | | racebook | Facebook Login | | |
| | Login | USN-4 | As a user, I | I can access | Medium | |
| | Login | 0511-4 | can log in to | the | Wiculuiii | |
| | | | the application | application | | |
| | | | by entering | аррисация | | |
| | | | my email and | | | |
| | | | password. | | | |
| | Dashboard | USN-5 | As a user, I | I can view my | High | |
| | | | can enter my | • | Ü | |
| | | | income and | daily expenses | | |
| | | | expenditure | | | |
| | | | details | | | |
| Customer | | USN-6 | As a customer | I can | Medium | |
| Care | | | executive, I | provide | | |
| Executive | | | can solve the | support | | |
| | | | login issue | 0 | | |
| | | | | r | | |
| | | | and other | solution at any | | |
| | | | issues of the | | | |

| | | | application | time 24*7 | | |
|---------------|-------------|-------|----------------|-------------------|--------|--|
| Administrator | Application | USN-7 | As an | I can fix the bug | Medium | |
| | | | administrator, | which arises for | | |
| | | | I can | | | |
| | | | upgrade or | | | |
| | | | u | | | |
| | | | pdate the | | | |
| | | | application | the | | |
| | | | | customer | | |
| | | | | S | | |
| | | | | and users of | | |
| | | | | the | | |
| | | | | application | | |

Project Design Phase-II Solution Requirements (Functional & Non-functional)

| Date | 03 October 2022 |
|---------------|------------------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Project – Personal expense tracker |
| Maximum Marks | 4 Marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement | Sub Requirement (Story / Sub-Task) |
|--------|------------------------|--|
| | (Epic) | |
| FR-1 | Register | Registration is the process of the user to complete |
| | | the application's form. Certain details must be |
| | | submitted such as e-mail address, password, and |
| | | password confirmation. The |
| | | user is identified using these details. |
| FR-2 | Login | The login screen is used to verify the identity of the user. The |
| | | account can be accessed using the user's |
| | | registered emailaddress and password. |
| FR-3 | Categories | On the main page, we can see overall revenue and |
| | | spending, as well as the balance remaining after |
| | | expenditure, as well as the user's entire categories |
| | | namely Entertainment, Cloth, Food |
| | | and Drinks, Health and Fitness and so on. |

| FR-4 | Update Daily Expensive | The user can upload the daily expensive details what they are spending on each day. The details such as cloth, entertainment, food, health etc., |
|------|------------------------|--|
| FR-5 | View Expensive Chart | This module used to see a pictorial depiction of all details in the form of a pie chart, where each slice of the pie chart represents that the viewer to gain an approximate |
| FR-6 | Set Alert | notion of which category has the highest expenses. When a user attempts to spend more than the predefined amount limit, the app will automatically send an alertif the threshold amount they selected for an alert is exceeded. |
| FR-7 | Notification | A feature of the application called push notifications lets the administrator or developer send a personalized tip ofmoney management to all of the app's users. |

Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|--|
| NFR-1 | Usability | The system shall allow the users to |
| | | access the system with pc using web |
| | | application. The system uses a web application |
| | | as an interface. The system is user |
| | | friendly which makes the system easy. |
| NFR-2 | Security | A security requirement is a statement of needed security |
| | | functionality that ensures one of many different |
| | | securityproperties of software is being satisfied. |
| NFR-3 | Reliability | The system has to be 100% reliable due to the |
| | | importance of data and the damages that can |
| | | be caused by incorrect or incomplete data. |
| | | The system will run 7 |
| | | days a week. 24 hours a day. |
| NFR-4 | Performance | The information is refreshed depending upon |
| | | whether some updates have occurred or not in |

| | | the application. The system shall respond to |
|-------|--------------|--|
| | | the member in not less than two seconds |
| | | from the time of the request submittal. The |
| | | system shall be allowed to take more time |
| | | when doing large processing jobs. Responses |
| | | to view information shall take no longer than |
| | | 5 seconds to appear |
| | | on the screen. |
| NFR-5 | Availability | The system is available 100% for the user and |
| | | isused 24hrs a day and 365 days a year. The |
| | | system shall |
| | | be operational 24 hours a day and 7 days a week. |
| NFR-6 | Scalability | Scalability is the measure of a system's ability |
| | | toincreaseor decrease in performance and cost |
| | | in response |
| | | to changes in application and system processing demands. |

Project Design Phase-I Solution Architecture

| Date | 19 September 2022 |
|---------------|--------------------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 4 Marks |

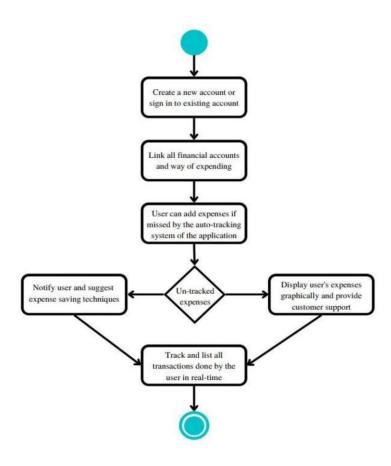
Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridgesthe gapbetween business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Initialising the components in the correct sequence and connecting them up witheach other when the app is launched.
- Shutting down the components and invoking cleanup methods where necessarywhen the app is shut down.
- Provide specifications according to which the solution is defined, managed, and delivered.

Example - Solution Architecture Diagram:

Figure : Architecture and data flow of the Personal Expense Tracker Application



Project Design Phase-II Data Flow Diagram & User Stories

| Date | 05 October 2022 |
|---------------|--------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Personal Expense Tracker |
| | Application |
| Maximum Marks | 4 Marks |

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.

User Stories

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

Type Functional User User Story / Acceptance

| User Type | Functional | User | User Story / | Acceptance | Priority | Release |
|---------------|--------------|--------|------------------|-----------------|----------|---------|
| | | | Task | | | |
| | Requirement | Story | | criteria | | |
| | (Epic) | Number | | | | |
| Customer | Registration | USN-1 | As a user, I can | I can access | High | |
| (Mobile | | | register for | my | | |
| us | | | the application | account/dashboa | | |
| er | | | by entering | | | |
| and web user) | | | my email and | rd | | |
| | | | confirming | | | |
| | | | my password. | | | |
| | | USN-2 | As a user, I | I can receive a | High | |
| | | | will receive a | | | |
| | | | confirmation | confirmation | | |
| | | | email once I | | | |
| | | | have | email & click | | |
| | | | registered for | | | |
| | | | the | | | |
| | | | application | confirm | | |
| | | USN-3 | As a user, I can | I can register | Low | |
| | | | register for | & | | |
| | | | the | access | | |
| | | | applicatio | | | |
| | | | n through | e | | |

| | | | Facebook | dashboard with | |
|------------------|-------------|-------|--|---------------------------------------|--------|
| | | | | Facebook Login | |
| | Login | USN-4 | As a user, I can log in to the application | I can access the application | Medium |
| | | | by entering my email and password. | •• | |
| | Dashboard | USN-5 | As a user, I can enter my | I can view my | High |
| | | | income and expenditure | daily expenses | |
| Customer Care | | USN-6 | As a customer executive, I | I can provide | Medium |
| Executive | | | can solve the login issue | support o | |
| | | | and other issues of the application | solution at any time 24*7 | |
| Administrator | Application | USN-7 | As an administrator, I can upgrade or | I can fix the bug which arises for | Medium |
| | | | pdate the application | the customer | |
| | | | | S | |
| | | | | and users of the | |
| | | | | application | |

Project Planning Phase Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

| _ | | |
|---|--------------|--------------------------------------|
| Ī | Date | 18 October 2022 |
| Ī | Team ID | PNT2022TMID37101 |
| Ī | Project Name | Personal Expense Tracker Application |

Maximum Marks 8 Marks

Milestone and Activity List

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|-------------------------------------|-------------------------|---|-----------------|---------------------|---------------------|
| Sprint-1 | Registration | USN-1 | N-1 As a user, I can register for the application by entering my email, password, and confirming my password. | | High | ArunYogesh M |
| Sprint-1 | | USN-2 | As a user, I will receive confirmation email once I have registered for the application | 1 | High | Harivishwesh k |
| Sprint-1 | Login | USN-3 | As a user, I can log into the application by entering email & password | 1 | High | Harivishwesh k |
| Sprint-1 | Dashboard | USN-4 | As a registered user, it takes 2 the user tothe dashboard | | High | Dhinesh M |
| Sprint-2 | Workspace | USN-1 | Showing the workspace for personal expense tracker | 2 | Medium | Jegadeeshwaran S |
| Sprint-2 | Charts | USN-2 | Creating various graphs and 1 statistics of customers data | | High | ArunYogesh M |
| Sprint-2 | Connecting to IBM DB2 | USN-3 | To link the database with 2 High dashboard | | Jegadeeshwaran S | |
| Sprint-2 | Dashboard | USN-4 | To make a dashboard with javascript | 2 | High | Dhinesh M |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|-------------------------------------|-------------------------|--|-----------------|----------|---------------------|
| Sprint-3 | Frontend | USN-1 | To wrap up the server side works of frontend | 1 | Medium | ArunYogesh M |
| Sprint-3 | Watson Assistant | USN-2 | Creating chatbot | 1 | Medium | Harivishwesh k |
| Sprint-3 | SendGrid | USN-3 | Integrating SendGrid services | 1 | Low | Dhinesh M |
| Sprint-3 | | USN-4 | Integrating both frontend and backend | 2 | Medium | Dhinesh M |
| Sprint-4 | Docker | USN-1 | To create images of website usingdocker | 2 | High | ArunYogesh M |
| Sprint-4 | Cloud Registry | USN-2 | To upload docker image to IBM CloudRegistry | 2 | High | Jegadeeshwaran S |
| Sprint-4 | Kubernets | USN-3 | To create a container | 2 | High | Harivishwesh k |

| | | | using dockerimage and hosting the site | | | |
|----------|----------|-------|--|---|------|---------------------|
| Sprint-4 | IP ports | USN-4 | Exposing IP Ports for the site | 2 | High | Jegadeeshwaran S |

Sprint Delivery Plan

Project Planning Phase Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

| Date | 18 October 2022 |
|---------------|--------------------------------------|
| Team ID | PNT2022TMID37101 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 8 Marks |

| 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 |

Imagine we have a 6-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)

8.2 User Acceptance Testing

| S.No | Test | Yes/ |
|------|------------------------------------|------|
| | Cases | No |
| 1. | Keyword driven | Yes |
| 2. | Responds in manually drafted rules | Yes |
| 3. | Manages multiple users | Yes |
| 4. | Conversational Paradigm | Yes |
| 3. | Learns from real interactions | No |
| 4. | Training via historical data | No |
| 5. | Has decision-making skills | No |

Available 24/7 across the globe

Direct connection with the bank agents

No queueing in responses

**Latest queries are answered with

easeUpdated to the latest details

Easy to setup and communicate

DISADVANTAGES

?????Limited Response Scaling

Frequent Maintenance Misreading

of Queries Connectivity Issues

CONCLUSION

The solution to almost all the querying applications has become chatbot for assistance and

resolving. We believe that the same technology can be in banking queries as it was meant for that

purpose. Though the bot would not be able to solve or satisfy all the queries for customer, it can

certainly resolve issues that the user might be facing often and help the banking sectors maintain

great relationships with their customers.

FUTURE SCOPE

The future of project lies entirely on how the customers get benefitted from the interaction and the

interface. We would have to make improvements in the bot to make it as user-friendly as possible.

The following areas could have a serious impact on our scope:

Support for multiple languages

Low latency in fetching responses

Voice and video instructions

GitHub: https://github.com/IBM-EPBL/SI-GuidedProject-14389-1666175166.git

Project Demo Link:

https://youtu.be/j9413 909t0