

CSCI 5601 – Milestone 2
(due Due: Sunday, November 20 at 11:00pm)

Group Information

Date: November 20, 2022

Group Name: GOLD

Names

Dharmay Dineshchandra Sureja

Radhey Rupapara

Sagar Vaghasia

Jayashree Ramasubramanian

Tejaswini Rallapalli

Study Summary and Data Analysis

Study Purpose and Objectives: What was the purpose and objectives of your first study

The purpose of the first study was to create an application to track spending/saving/bill tracking using mobile. It enables users to analyze the expenditures which in turn helps to reduce unnecessary expenditures and helps in saving money. It also aids in saving interest on the loans. This application has features like reminders which will help users to get notifications. This will result in less chances of missing a payment or a transaction. It has visualization feature which will help users to analyze their expenditure. This is available in the form of graphs such as bar graphs, pie charts, line graphs etc. It also has a loan calculator feature which will help users to know how much they can save or loose on interest depending on the number of instalments and number of years. It has the expense categorization feature, using which users will be able to create custom categories that can suit their spending habits and easily manage their expenditures. The labels of the application match the content and features. The button size is big so that they can be easily accessed.

Data Analysis

Analysis Process:

We interviewed the users and asked them to use the application to set the expenses, their income, and the reminders. They navigated through the app and shared their experiences. They found it difficult to navigate through the application as the UI was cluttered. Based on the user feedback, we prepared the notes as part of the analysis process.

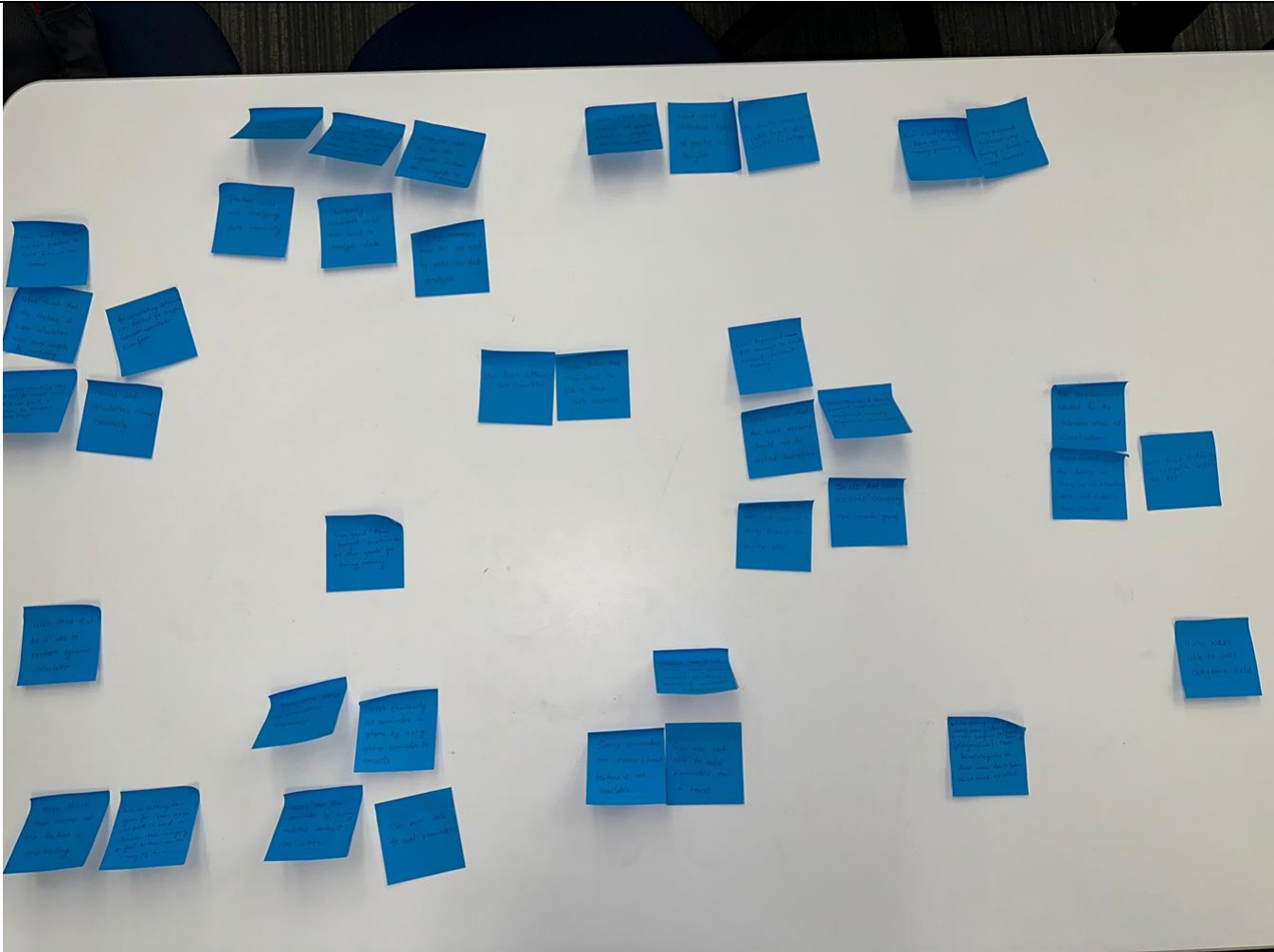


Figure 1

Data Analysis/Results:

Based on the data we collected, we decided to categorize the app based on the UI, the features, the drawbacks of the application. We categorized the features as vital, essential and desirable. We decided to implement the vital and essential features, as well the UI part for better readability and understandability.

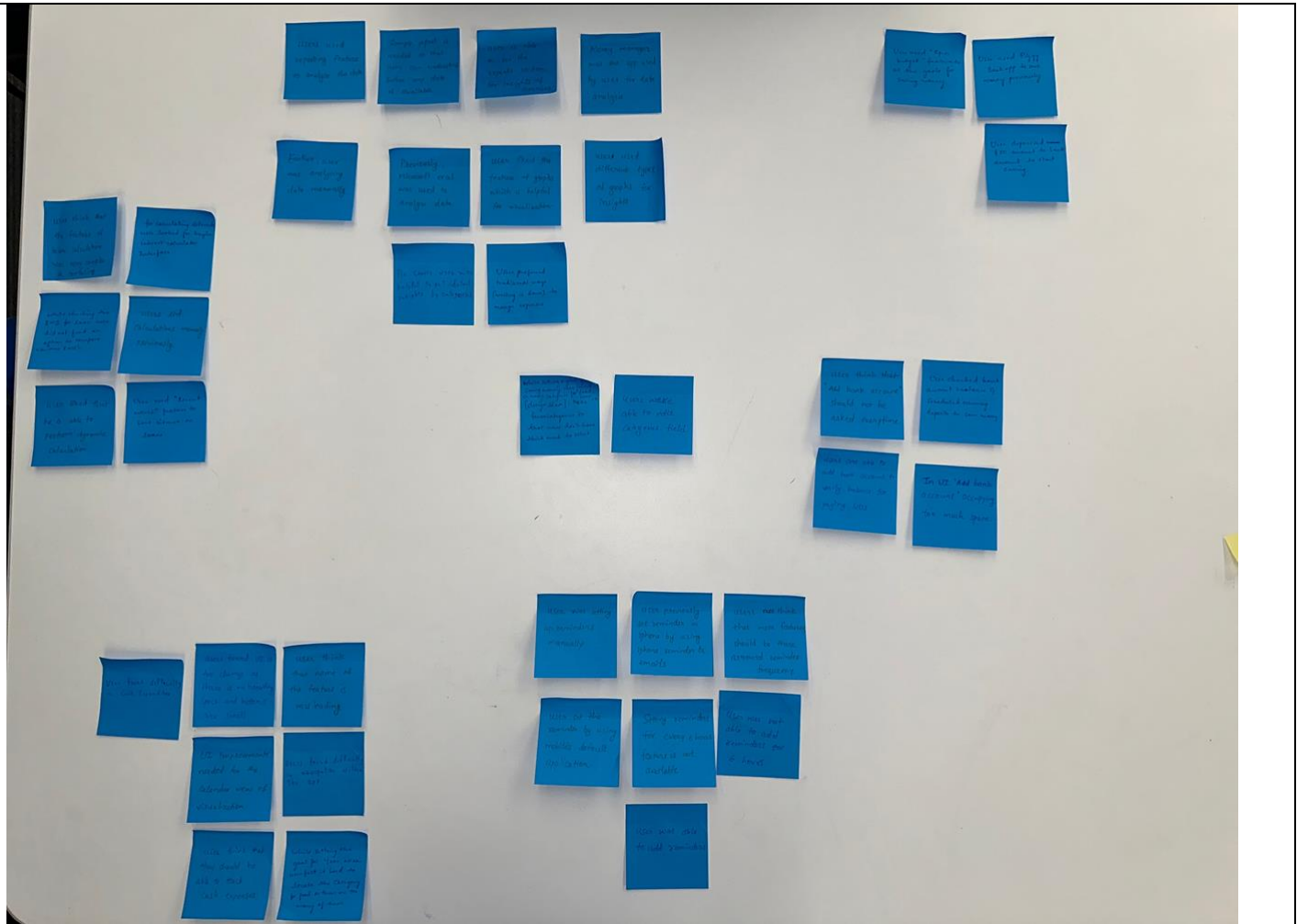


Figure 2

Suggested Features:

From the data analysis, which was based on the data collected from the user, we came up with 7 features that fit into the tasks.

Statistics -This theme describes the analysis of expenditure and reports generated in the form of graphs.

Loan Calculator - It helps in paying off the loan amount by saving interest when user inputs necessary inputs.

Reminders- This theme helps to set reminders before the due dates of bills. It also provides reminder prior to the due date at specific interval of time. Hence, the user will not miss the due date.

Goal Tracking- This theme encourages users to save money by reducing unnecessary/over expenses on specific categories or items, it also notifies user for overspending.

Linking Bank Accounts- This theme mainly focuses on in-app banking activity, which provides seamless transaction monitoring for bill payments and expenditure tracking. User can easily link their bank account with app to track transactions.

Expense Categorization- Child categories are composed in the form of a parent category and vice versa. Resulting in preferred user customized categories.

UI Improvements- Many users found that the app needed improvements in user interface. Therefore, this theme emphasizes on the faults in the interface aimed by user, which are needed to be enhanced

Features to Prototype:

Reminders

Custom interval reminder Setting reminder for every six hours feature is un-available and should be implemented for user convenience.

User should be able to set customized frequency of the reminder (for example, user should get notification at set frequency at custom interval day)

Statistics

There should be more in- depth analysis for different categories to track spendings.

Currently, only two types of graphs are available, which provides limited insights for analysis. By adding more graphs users can get to know more about their expenses and savings.

Loan Calculator

There should be more ways to calculate the loan interest which helps the user in savings which has to be with less complex calculation methods.

Data Modeling and Prototype

User Tasks (based on decided features from the Data Analysis)

Statistics

User navigates to visualization page from home and can see the visualization page, where the user can select the expense category. Once this is selected, the user will be displayed with the most recent visualization page which contains the analysis of data in the form of pie chart, bar graph for the recent expense. User can click on this statistics page and select category, and the month to track spendings.

Loan calculator:

Users must select the loan calculator menu from the home page. Once this page is displayed, the user will be prompted to fill in details about the loan amount, the interest rate, and the time period for the loan. Once the user fills in these details. System prompts a confirmation message about the monthly installment. On the next page, the user needs to enter the amount that they can pay. Then the system calculates savings as per the information provided by the user and the user will be able to see the savings on the loan.

Reminders:

User needs to select the categories menu from the home page where the user needs to select the category for which the reminder must be set. Once the category is selected, the user needs to select the frequency of the reminders, the due date for payment and the date for the reminder. Based on the frequency, the user can also select the time interval for these reminders. The system will display all the information entered by the user and once the user confirms, the reminder will be set on that particular date for bill payment.

Prototype Process and Description

We used the Balsamiq tool for creating prototypes for selected features that are visualization, reminders and loan calculator. For each feature, we created a task scenario and wrote use cases. For each use case, we created various prototypes using the tool which shows how the application looks and how the user can navigate between pages and can perform tasks. We have selected only those features to prototype which are considered as crucial features in the application. This gives a better insight to users by looking at the prototype designs and understanding the flow of the application. The prototype process follows sequential steps starting from user sign-in to that particular feature to system logout.

Cognitive Walkthrough Description

After prototyping and wireframing is done, our team has done research on how Abby will be interacting with our application and how her motivations and knowledge will affect the usage of Abby. Considering Abby's user persona, what challenges and roadblocks would be faced are also considered in UX research and development of the application of Banking: Spending / Saving / Bill Tracking (Smartphone). After working on appendices and interviewing, our team has proposed and applied corrections to some existing and new features of the application. Talking about the custom reminder, it has been designed in such a way that Abby can easily find all the necessary fields and inputs for setting custom interval reminders. Abby will be able to enter all the details easily and error-free as designed system is able to detect and prompt for errors in input fields. Which will play a major role with cognitive part. For an instance, if the dates entered are already passed then Abby will be shown promptly to correct the input. In addition to that, at the very beginning of the study it was found that switching between features required multiple steps (multiple clicks) to navigate through the application. Which led to confusion and took while to understand the application. To address this, our team has designed a constant top bar with feature dropdown menu which will have a list of all the features and navigation of the feature can be made easy. As a result, navigation inside the application has become effortless and requires comparatively less steps (clicks) as compared to previous approach. Our team has created wireframe diagrams to present suggestions of application.

Appendices

- Appendix A – Persona (provided)
- Appendix B -- Tasks, Scenarios, Use Cases and Prototype for each feature
- Appendix C – Cognitive Walkthrough Sheets
- Appendix D – Work Breakdown

Note: each Appendix should start on a new page.

Abby Jones¹



- 26 years old
- PhD Student in Science
- Lives in Halifax, NS

Abby has always liked music. When she drives her car to school in the morning, she listens to music that spans a wide variety of styles. But when she arrives at school, she turns it off, and begins her day by scanning all her emails first to get an overall picture before answering any of them.

Background and skills

Abby's research is in Biology. She is comfortable with the technologies she uses regularly, but she just started working in a new lab 1 week ago, and their software systems are new to her.

Abby says she's a "numbers person", but she has never taken any computer programming or IT systems classes. She likes Math and knows how to think with numbers. She writes and edits spreadsheet formulas in her work.

In her free time, she also enjoys working with numbers and logic. She especially likes working out puzzles and puzzle games, either on paper or on the computer.

Motivations and Attitudes

- **Motivations:** Abby uses technologies to accomplish her tasks. She learns new technologies if and when she needs to, but prefers to use methods she is already familiar and comfortable with, to keep her focus on the tasks she cares about.
- **Computer Self-Efficacy:** Abby has low confidence about doing unfamiliar computing tasks. If problems arise with her technology, she often blames herself for these problems. This affects whether and how she will persevere with a task if technology problems have arisen.
- **Attitude toward Risk:** Abby's life is a little complicated and she rarely has spare time. So she is risk averse about using unfamiliar technologies that might need her to spend extra time on them, even if the new features might be relevant. She instead performs tasks using familiar features, because they're more predictable about what she will get from them and how much time they will take.

How Abby Works with Information and Learns:

- **Information Processing Style:** Abby tends towards a *comprehensive information processing* style when she needs to more information. So, instead of acting upon the first option that seems promising, she gathers information comprehensively to try to form a complete understanding of the problem before trying to solve it. Thus, her style is "burst-y"; first she reads a lot, then she acts on it in a batch of activity.
- **Learning: by Process vs. by Tinkering:** When learning new technology, Abby leans toward process-oriented learning, e.g., tutorials, step-by-step processes, wizards, online how-to videos, etc. She doesn't particularly like learning by tinkering with software (i.e., just trying out new features or commands to see what they do), but when she does tinker, it has positive effects on her understanding of the software.

¹Abby represents users with motivations/attitudes and information/learning styles similar to hers. For data on females and males similar to and different from Abby, see <http://eusesconsortium.org/gender/gender.php>

Appendix B – Task, Scenario, Use-cases and Prototype images

Three features

Feature	Description of the feature
Reminders	This reminder feature will help users to get notified more frequently according to their pace, which will result in less chances of missing of payment or a transaction.
Visualization	This Visualization feature will help users to get more in-depth analysis of their expenditure habits through various visualizations like graphs such as bar graph, pie chart, line graph etc.
Loan Calculator	The loan calculator feature will help user to know that how much he could save on interest if they modify installments amount by increasing or decreasing installment amounts.
Feature1: Reminders	
Task Name: Set customer interval reminder	
Task Scenario: Abby is a PhD student. Due to the busy schedule of her life from conducting classes and delivering seminars, she forgets bill payments a few times earlier. This has affected her credit score. Thus, she set a reminder this time 2 days before the due date to remind her of the bill payment. She found that setting an alert or reminder 2 days earlier is too annoying, so she changed the alert to a day prior to the due date and also changed the frequency of the alarms.	
Use-Case	
Normal Case <ol style="list-style-type: none">1. The user logs into the application with a username and password2. The user specifies the type of category for which the reminder needs to be set.3. The user clicks on the reminder section.4. The system displays the options to give the reminder by date, weekly, biweekly, monthly, etc.5. The user specifies the due date for the bill payment.6. The user specifies the date for the reminder.7. The user specifies three reminders, with time intervals in terms of hours.8. The system displays all the information.9. The system prompts the user to accept the information.10. The user accepts and logs out.	
Alternative Case 5.1 The user enters due date which has already passed 6.1 The user enters due date which has already passed 8.1 The system prompts user and asks to re-enter details	

Prototype Images

Image 1: User opens reminder menu and selects bill category to set a reminder

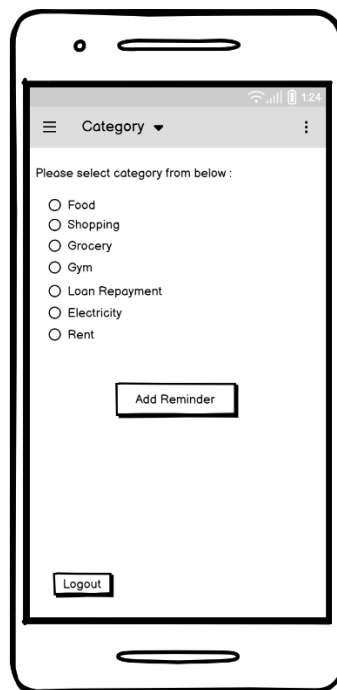


Figure 3

Image 2: User selects frequency and all required information

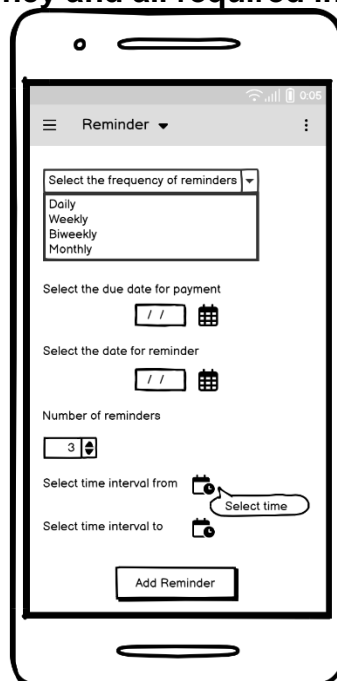


Figure 4

Image 3: User clicks add reminder button and confirm all details

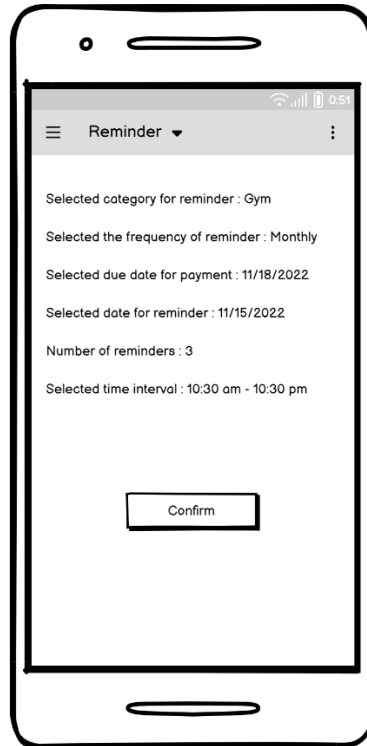


Figure 5

Image 4: System asks for confirmation

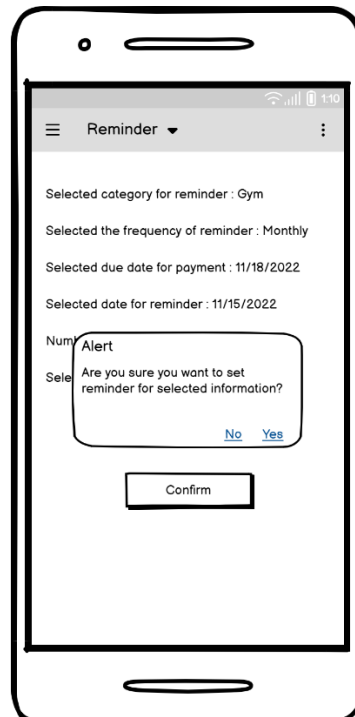


Figure 6

Image 5: System shows success message and redirects to reminder menu

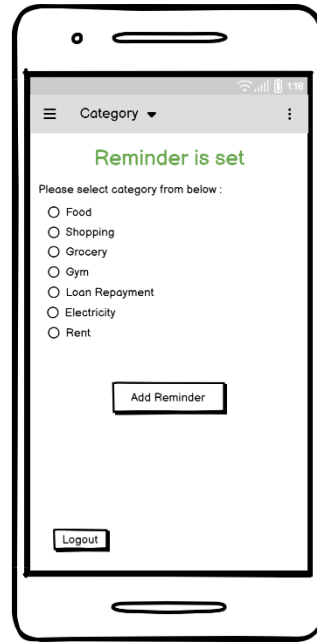


Figure 7

Feature2: Visualization

Task Name: Expense summary using charts.

Task Scenario:

Abby is a PhD student in biology. She had spent 800 dollars on her recent trip to Germany and prior to that, she spent more than 2870 on various categories which she did not remember where she spent. She is struggling when dealing with multiple calculations and numbers. Thus, she needs some way to summarize of the expenses in the form of charts and graphs. Hence, she used the report and analysis section to summarize her spending of hers in terms of various graphs and categories which helps her to visualize her expenses

Use-Case

Normal Case

1. The user downloads the application from the play store
2. The user sets the username and password
3. The user logs into the application with a username and password
4. The user sees the home screen
5. The user opens the visualization section.
6. The user selects the expense category.
7. The user sees statistical information for that expense category based on child and parent categories for the most recent time.
8. The user changes month to get specific months' expense details.
9. The system shows visualization for specific month and expense charts.
10. The user changes month range to get information within bound months.
11. The system shows bar graphs, bar representing month within the bound months.
12. The user changes month to see daily based expense habit for a specific category.
13. The system shows daily expense habits based on month selected by user.

Alternative Case

- 8.1 The user changes month to get specific months' expense details.
- 9.1 The system has no information for that months' expenses and asks user to select another month.
- 8.1.1 The user selects another month.
- 10.1 The user changes month range to get information within bound months.
- 10.1.1 The month range is in reverse order (eg. September to July)
- 11.1 The system asks user to enter month range again.
- 12.1 The system has no information for that months' expenses and asks user to select another month.

Prototype Images (you may have more or fewer images that rows – add and delete as necessary)

Image 1: The user opens app and sees the home screen

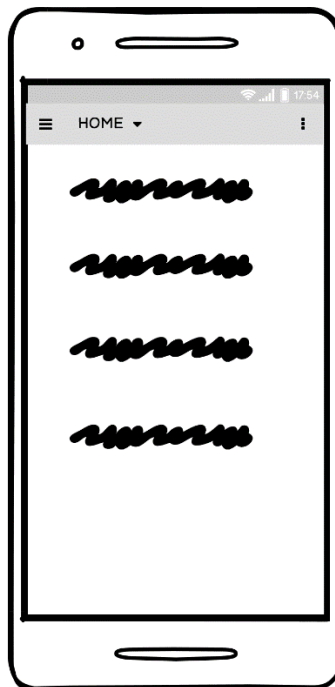


Figure 8

Image 2: User selects visualization

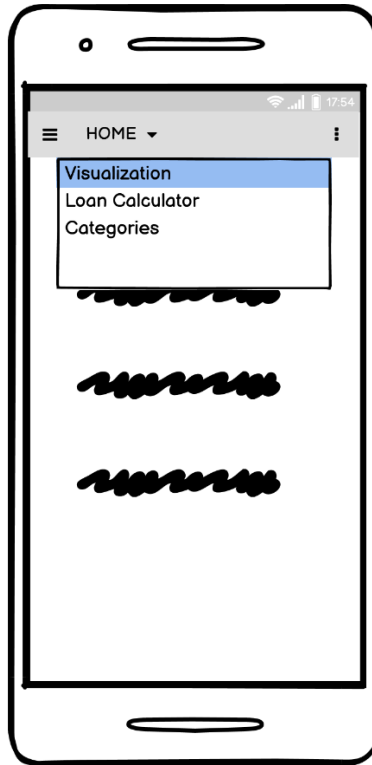


Figure 9

Image 3: Visualization menu is shown

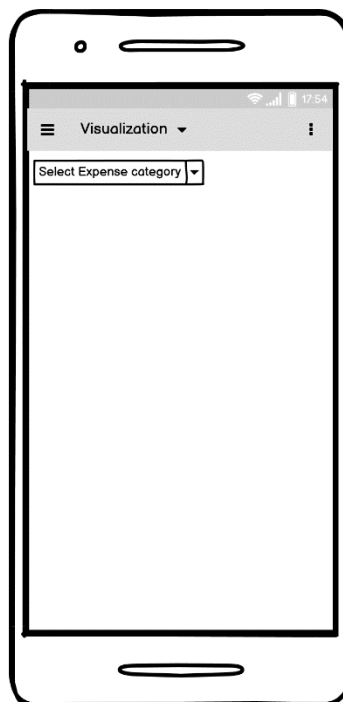


Figure 10

Image 4: The expense category is selected

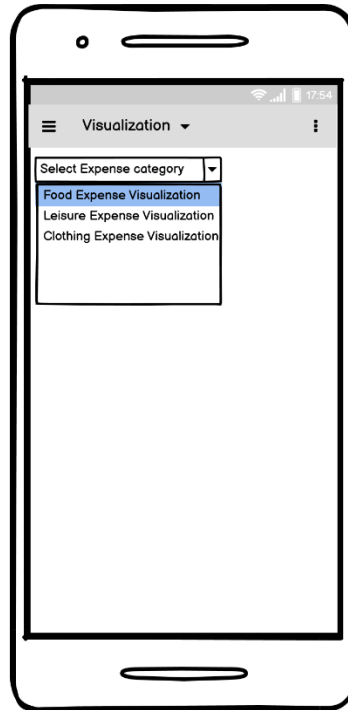


Figure 11

Image 5: Most recent data visualization is shown

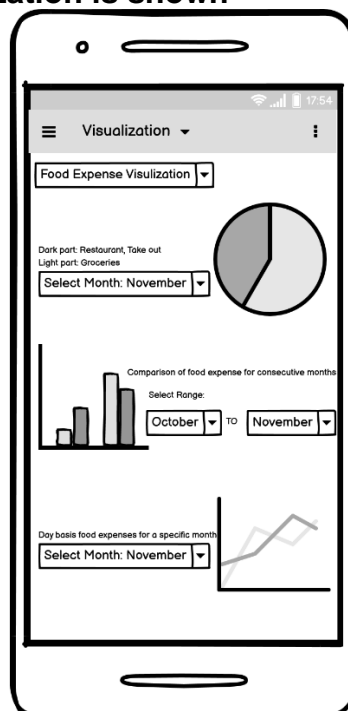


Figure 12

Image 6: Another expense category is selected

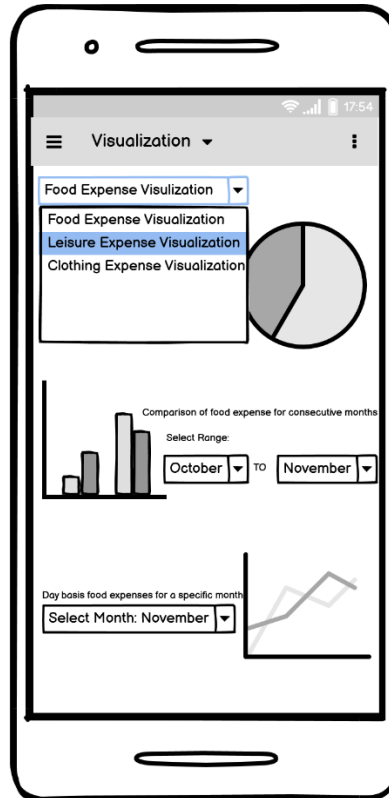


Figure 13

Image 7: Subcategory's month is changed

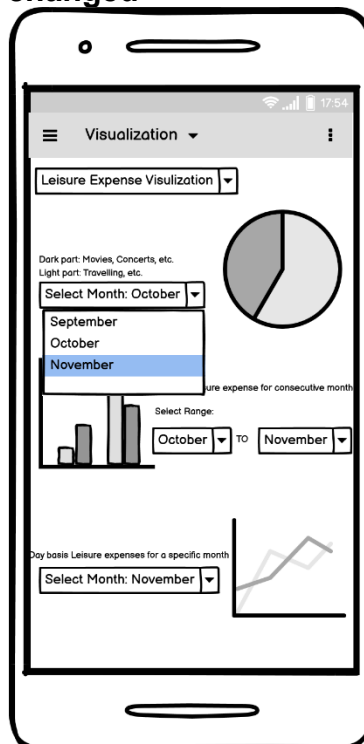


Figure 14

Image 8: The month range for comparison is changed.

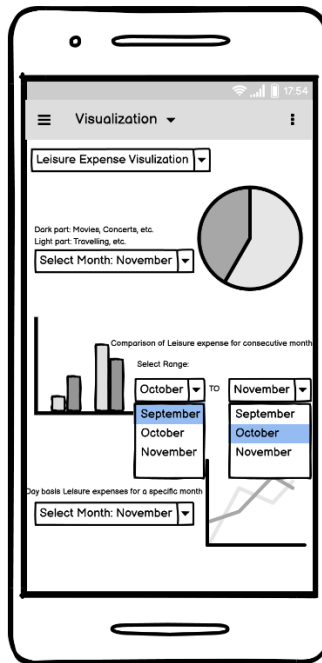


Figure 15

Image 9: Daily based line graph's month is changed.

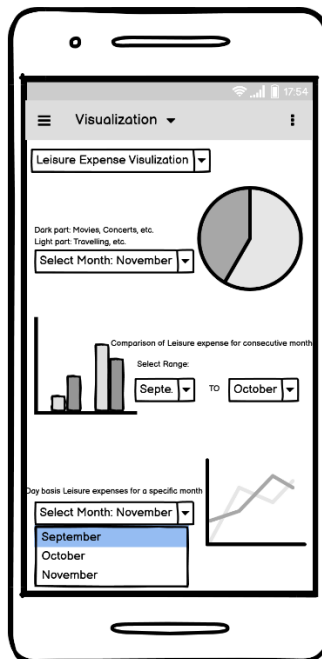
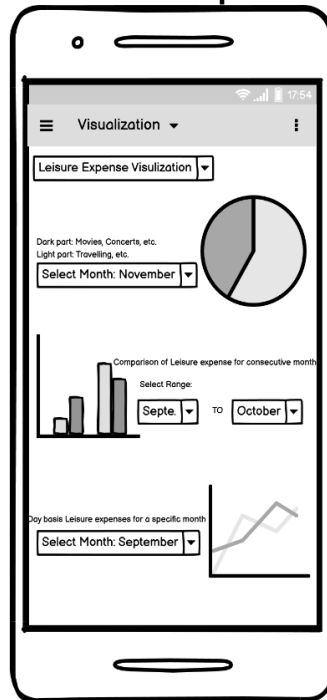


Figure 16

Image 10: The system shows all visualization as per user's requirements.



Feature3: Loan calculator

Task Name: Prediction for early loan payoff for interest saving

Task Scenario:

Abby is a PhD student, and she started her PhD research one and half years ago. She was paying installments of the student loan regularly but recently rights of her 2 patents were purchased by the multi-national company, so her income increased. Now, she wanted to increase the amount of installment as she can pay more than she previously used to pay. Thus, she used loan calculator feature which took a few inputs from her such as principal amount, rate of interest, duration, EMI installment, and many more. Once she entered new installment value which she affords, now the updated tenure of the loan and interest that she will save is predicted.

Use-Case

Normal Case

1. The user downloads the application from the play store
2. The user logs into the application with a username and password
3. The user clicks on the loan icon
4. The system prompts the user to enter the loan amount, principal, rate of interest, duration, and EMI installment.
5. The user enters the details like loan amount, principal, rate of interest, duration, and EMI installment in the appropriate places in the UI.
6. The system displays all the information.
7. The system prompts the user to accept the information.
8. The system shows the number of years within which the loan payment will be completed for the EMI
9. The system prompts the user to enter the EMI amount,

10. The user enters the new EMI installment
11. The system shows the number of years within which the new loan payment will be completed
12. The system displays all the information.
13. The system prompts the user to accept the new information.
14. The system shows the number of years within which the new loan payment will be completed for the new EMI.
15. The user can see the number of years within which the loan payment will be completed for the new EMI and existing EMI
16. The user accepts and logs out.

Alternative Case

- 7.1 The user rejects the prompt.
 - 7.1.1 The system asks user to enter details again.
- 13.1 The user rejects the prompt.
 - 13.1.1 The system asks user to enter details again.

Prototype Images

Image 1: User open loan calculator menu

Loan Calculator

How much loan did you took from the bank?
Enter the amount on which loan is taken

What was the Annual Interest?
Enter the annual interest on the loan

For how many years have you taken the loan?
Enter the loan period period

Next >

Figure 18

Image 2: User enters all necessary information and presses next and confirms details



Figure 19

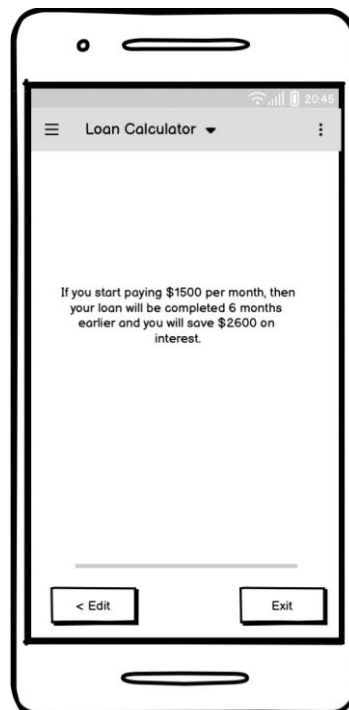
Image 3: User enter additional information regarding loan payment.



The image shows a mobile application interface titled "Loan Calculator". The screen displays the question "How much amount per month are you able to pay now?" followed by a text input field with the placeholder text "Enter the amount that you want to pay". At the bottom of the screen, there are two buttons: "< Back" on the left and "Next >" on the right.

Figure 20

Image 4: The system calculates savings as per information entered by user and user sees savings



The image shows the same mobile application interface, but now it displays the calculated savings. The text on the screen reads: "If you start paying \$1500 per month, then your loan will be completed 6 months earlier and you will save \$2600 on interest." At the bottom of the screen, there are two buttons: "< Edit" on the left and "Exit" on the right.

Figure 21

Appendix C - Cognitive Walkthrough Sheets

Date of Evaluation: _____

Names of Evaluators: _____

Instructions:

In pairs, the evaluators will be walkthrough the system for each task. For each step of the use-case the evaluators will answer three questions – if Abby will know what action to take, how to do the action, and then if Abby can tell if the actions taken is correct (yes, no or maybe with a short reasons). Give any problems (a "No" or "Maybe" a severity rating from 1 to 5 (where 1 is minor and 5 is critical).

Description of System:

To let users track their expenditure and help them meet their saving goals with in-depth analysis of their spending habits with visualizations as well as help them with their money management including bill tracking, reminders, etc.

Typical Users: Abby

Abby Jones¹



- 26 years old
- PhD Student in Science
- Lives in Halifax, NS

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How Abby Works with Information and Learns:

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Figure 22

Typical Tasks:

- User can create custom category for expenses.
- User can create group of categories (parent category) from child categories
- User can add expenses to custom created categories.
- User can set custom reminders with frequency for bill payments.
- User can get visualization using different graphs from their spending habits data.
- User can calculate approx. savings with loan calculator
- User can link bank account to track spendings and monitor credit card.
- User can set savings/spending goals.

Cognitive Walkthrough Sheet [Evaluation Sheet/s – Task 1]

Task Title: Setting reminder for custom time interval

Task Scenario: Abby is a PhD student. Due to the busy schedule of her life from conducting classes and delivering seminars, she forgets bill payments a few times earlier. This has affected her credit score. Thus, she set a reminder this time 2 days before the due date to remind her of the bill payment. She found that setting an alert or reminder 2 days earlier is too annoying, so she changed the alert to a day prior to the due date and also changed the frequency of the alarms.

Step 1: Abby opens reminder menu and selects bill category to set a reminder

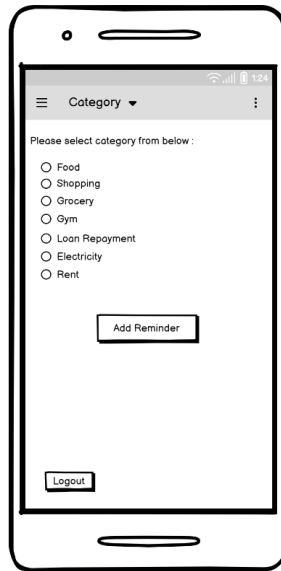


Figure 23

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby will be able to see all available categories			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby will be able to see radio button to select and clickable			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby will be taken to next page.			

Step 2: Abby selects frequency and all required information

Figure 24

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby will be able to see whole form to enter appropriate values			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby will be able to select date from calendar and can see appropriate labels.			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby will be taken to next confirmation page by clicking add reminder button			

Step 3: Abby clicks add reminder button and confirm all details

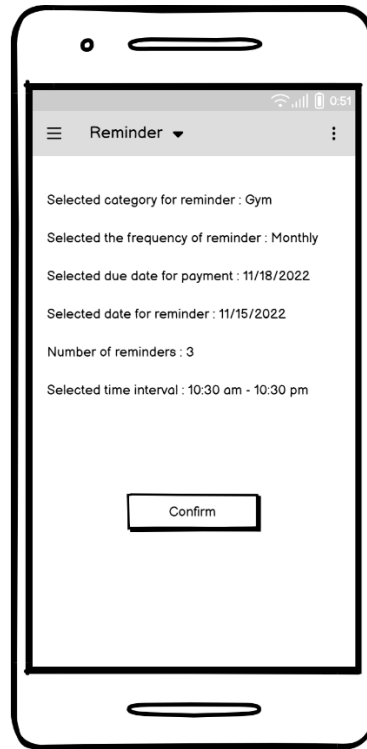


Figure 25

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby can see all the details received by system			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby can read and review all the information.			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby will be able to click confirm button to save reminder.			

Step 4: Abby confirms prompt

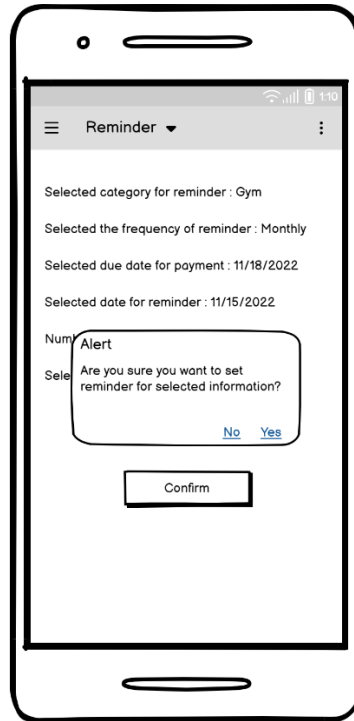


Figure 26

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby will be able to see alert pop up.			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby will be able to see highlighted yes and no button			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby can decide based on buttons shown and will be redirected as per selection.			

Cognitive Walkthrough Sheet [Evaluation Sheet/s – Task 2]

Task Title: Analysing the data of expenditure using graphs

Task Scenario:

Abby is a PhD student in biology. She had spent 800 dollars on her recent trip to Germany and prior to that, she spent more than 2870 on various categories which she did not remember where she spent. She is struggling when dealing with multiple calculations and numbers. Thus, she needs some way to summarize of the expenses in the form of charts and graphs. Hence, she used the report and analysis section to summarize her spending of hers in terms of various graphs and categories which helps her to visualize her expenses

Step 1: Abby selects expense category.

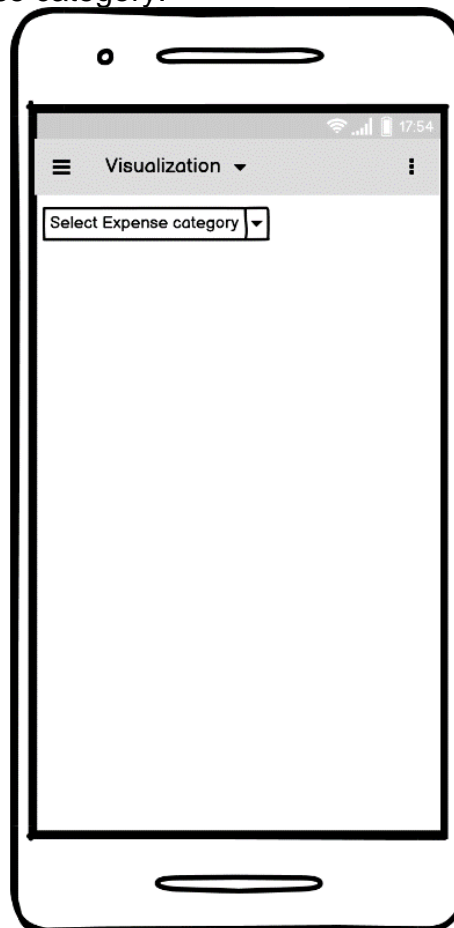


Figure 27

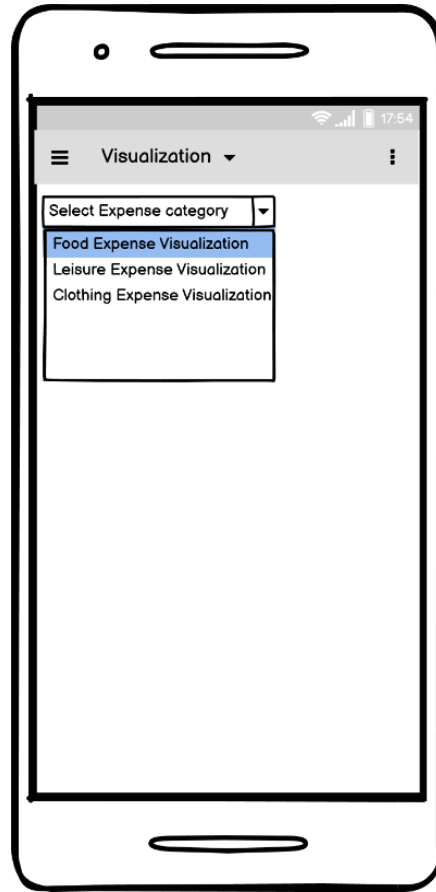


Figure 28

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby will be able to know that she can select category by drop down menu			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby can see list of categories in drop down menu to be selected			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby can select expense category as it is clickable and will be redirected to next page.			

Step 2: Abby selects expense category.

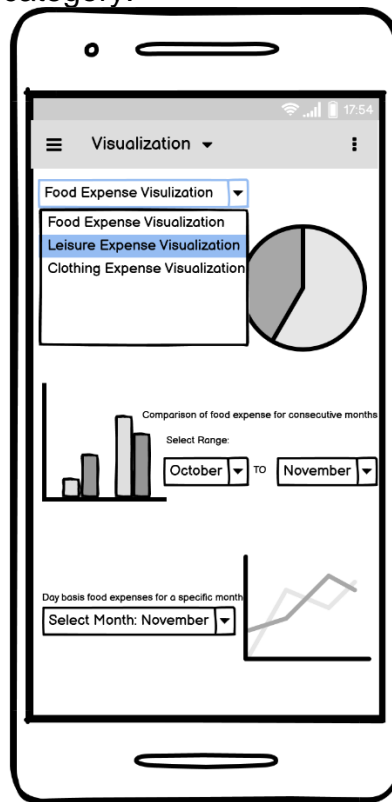


Figure 29

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby can change expense category by opening drop down menu and selecting another category.			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby will be able to see all category by clicking dropdown menu			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby will be shown new data as per selected category.			

Step 3: Abby changes month for getting month specific expense visualization.

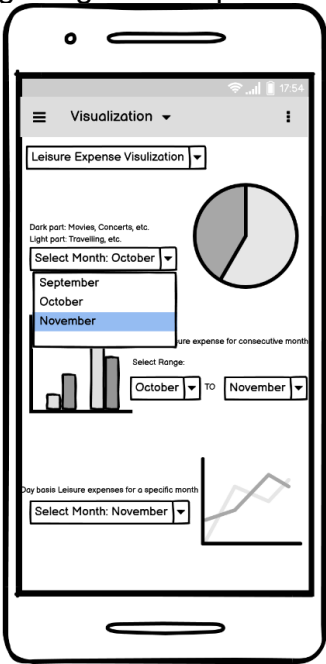


Figure 30

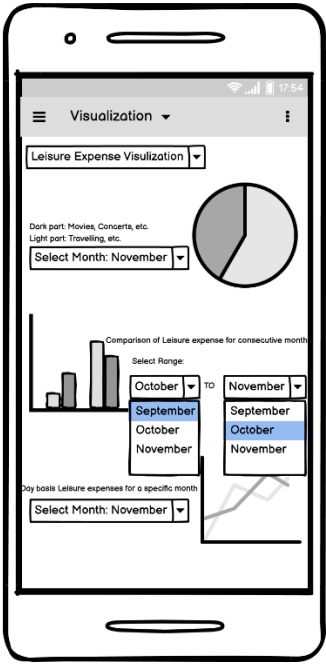


Figure 31

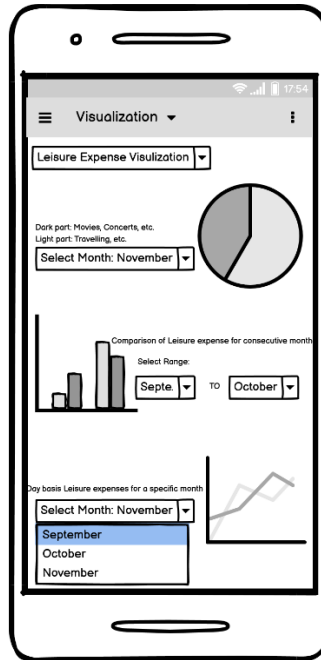


Figure 32

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby can see dropdown menu with appropriate labels to understand use			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	After clicking drop down menu Abby can select month of their preference			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	After selecting month, Abby will get updated data and charts will be updated.			

Cognitive Walkthrough Sheet [Evaluation Sheet/s – Task 3]

Task Title: Prediction for early loan payoff for interest saving
Task Scenario:

Abby is a PhD student, and she started her PhD research one and half years ago. She was paying installments of the student loan regularly but recently rights of her 2 patents were purchased by the multi-national company, so her income increased. Now, she wanted to increase the amount of installment as she can pay more than she previously used to pay. Thus, she used loan calculator feature which took a few inputs from her such as principal amount, rate of interest, duration, EMI installment, and many more. Once she entered new installment value which she affords, now the updated tenure of the loan and interest that she will save is predicted.

Step 1: Abby enters information in loan calculator menu

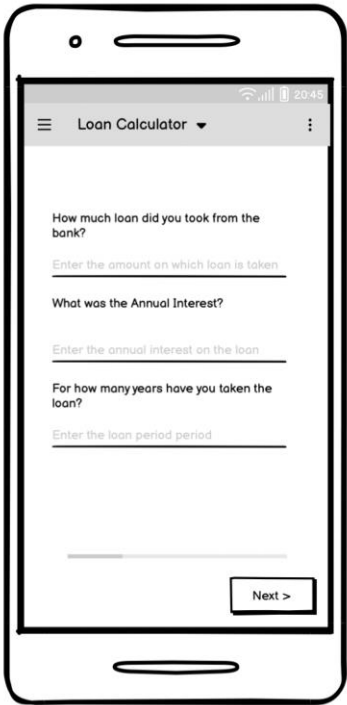


Figure 33

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby can see all the data entry fields with appropriate labels			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that	Abby can see textbox with hints to motivate her to write.			

they should use for the next action? Is it apparent when needed?)				
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby will be able to see next button and redirect to next screen.			

Step 2: Abby confirms details



Figure 34

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby will be able to see popup alert with edit and next button			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby will be able to see highlighted edit and next buttons.			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know	Abby can click button appropriate and will be redirected respectively. Abby will be redirect to next page if next is			

from the feedback that they have made a correct or incorrect choice of action?)	clicked.			
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Step 3: Abby enters additional details



Figure 35

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby will be able to see label and write in textbox.			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby can see back and next buttons clickable at bottom and textbox with label to help her understand action.			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby will be redirected to next screen after clicking next.			

Steps 4: Abby sees calculation of savings.



Figure 36

Question	Yes (reason/s)	No (reason/s)	Maybe (reason/s)	Severity Rating (1-5)
Will the correct action be sufficiently evident to Abby? ("Know what to do?" -Will the Abby know what to do to achieve the task?)	Abby can see prediction by application with appropriate message on screen.			
Will the Abby notice that the correct action is available? ("See how to do it" - Can users see the button or menu item that they should use for the next action? Is it apparent when needed?)	Abby can see edit and exit buttons at bottom to go back and make changes.			
Will the Abby associate and interpret the response from the action correctly ("Understand correct action/not correction" - will users know from the feedback that they have made a correct or incorrect choice of action?)	Abby will be redirect to previous page on click of edit button or will be redirect to main home on click of exit.			

Appendix D – Work Breakdown

Milestone 2 Work Breakdown

The template has several sections and appendices. It is assumed that all members will contribute to the main parts of the assignment (e.g., analysis, task lists, use-cases, prototype details) but other parts may be assigned to different team members.

As well, everyone should take turns for the Milestones/final report as proofreaders to ensure that the team hands in a complete, cohesive, and well organized (with consistent layout/fonts) document. This extra step which doesn't take a lot of time, can have a substantial impact on your grade.

At the end of the project, your teammates will evaluate your overall performance and participation in the group project.

Activity	Team members who helped or were responsible
Study Summary and Analysis	Tejaswini Rallapalli, Jayashree Ramasubramanian
Data Modeling: Task List Scenarios Use Cases Prototype	Dharmay Sureja, Radhey Rupapara, Sagarkumar Vaghasia, Tejaswini Rallapalli
Cognitive Walkthrough Description	Dharmay Sureja, Sagarkumar Vaghasia, Radhey Rupapara
Appendix Task, scenarios, use-cases and prototype Cognitive Walkthrough sheets	Dharmay Sureja, Sagarkumar Vaghasia, Radhey Rupapara
Proofreader/s	Dharmay Sureja, Radhey Rupapara, Sagarkumar Vaghasia, Tejaswini Rallapalli, Jayashree Ramasubramanian