

Expense Tracker

CS 175 Final Report

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Department of Computer Science

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By

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INTRODUCTION

The expense calculator app allows users to track and manage their expenses in a simple and intuitive way. Users can input their expenses, categorize them, and generate reports to gain insights into their spending habits. With features like automated categorization, the app streamlines the process of expense management.

The goal of this application is to revolutionize the way users track their expenses. It is done by using a simple to use but extremely beautiful and fluid UI. The navigation between various pages of the app is very logical and with features like graph generation, it gives a very meaningful insight on the spending patterns of the user.

In the rest of the documentation, we will go over functionalities of the application along with illustrative images to showcase each feature and functionality. We would then end the documentation with the link to the repository containing the source code and the API.

APP FUNCTIONALITY

Home Page:

The Home Page of this application is designed very thoughtfully as it gives a gist about all the functions that the app can perform. The home page consists of an expense tracker, a button to add categories, a list of items that user has purchased or spent money on, a floating pointer to add expenses and a menu pane which has icons for Home, History, Stats and Settings.

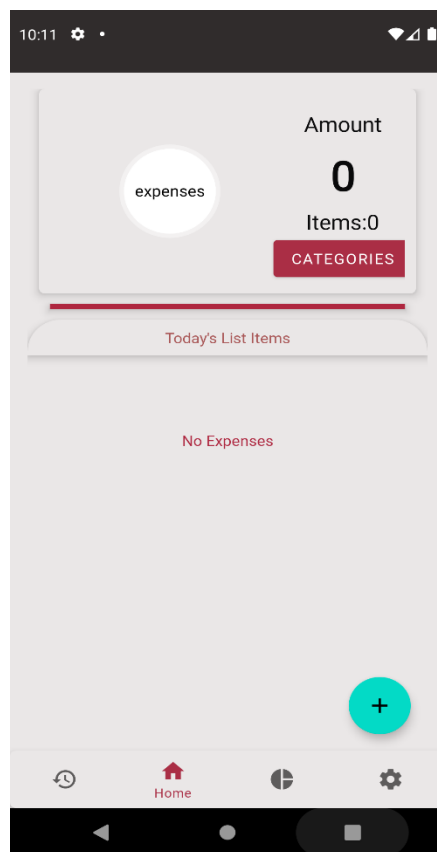


Figure1 [Home]

Now that the user is on home page, he/she can toggle between screen to use the application.

Categories:

The category allows user to add new categories or edit existing ones. A person spends his money on several things such as food, travel, education, technology etc., which all can be considered as categories.

To add a category, the click on the Floating Action Button(FAB) at the bottom right of the screen which will lead him to a screen prompting to create a new category. The screen consists of two text boxes namely, “name” and “budget” and a category image button from where user can pick a relevant image for his category.

Fig 2, Fig 3 and Fig 4 show how various categories are added with specific budget for each category.

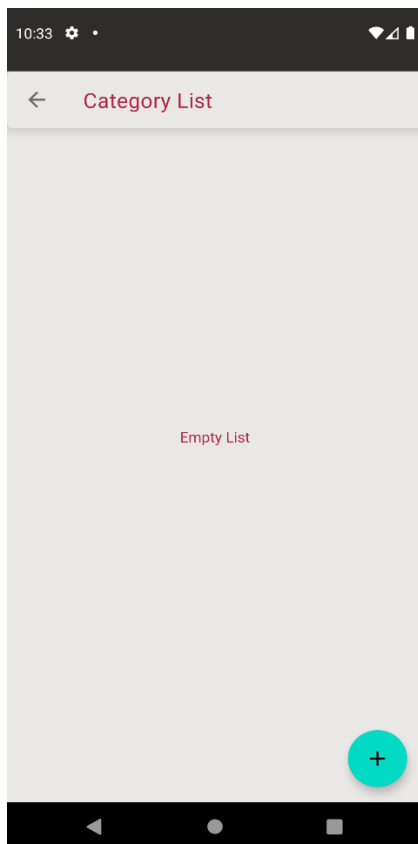


Figure2 [Empty Category List]

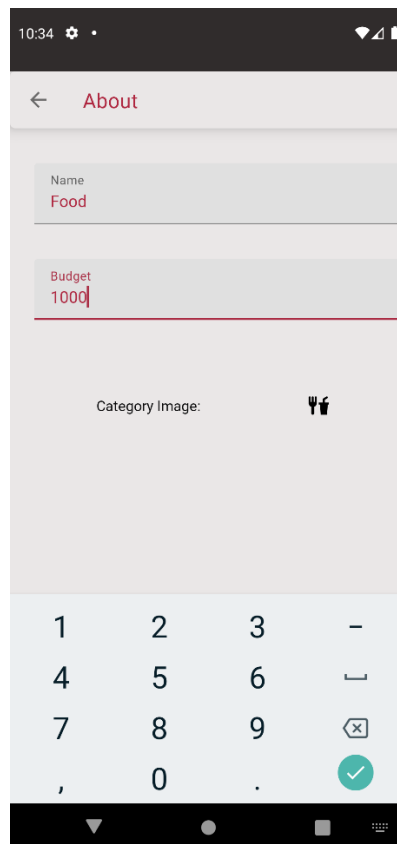


Figure3 [Create Category]

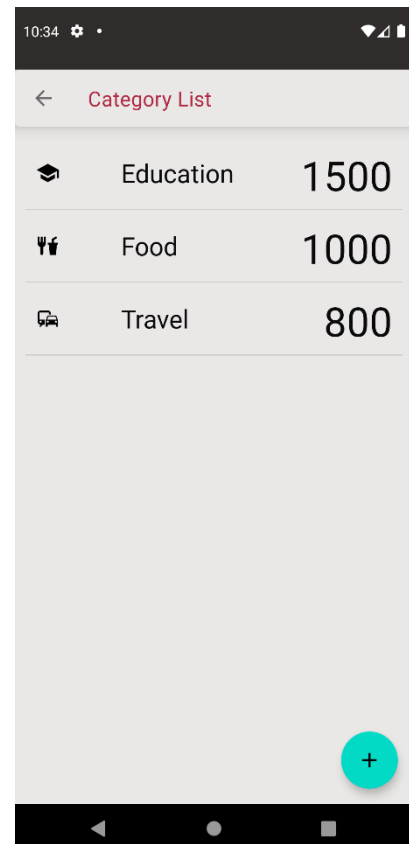


Figure4 [Category List]

Add Items:

Now that the user has created categories and allocated budget to each of them, he/she can track their expenses in the corresponding category.

Let us say that the user purchased a pizza for 6 dollars, he can track that expense by clicking FAB on the home button. Once clicked, it will navigate user to add expense screen. This screen consists of two user input boxes to note down the amount and the notes. It also has a categories button in which user can either select the category from existing list (like food in this case) or simply create a new category and allocate expense to it.

Once the user adds expense, you'll be able to see on the home screen the total amount spent, number of items and also amount spent in individual category.

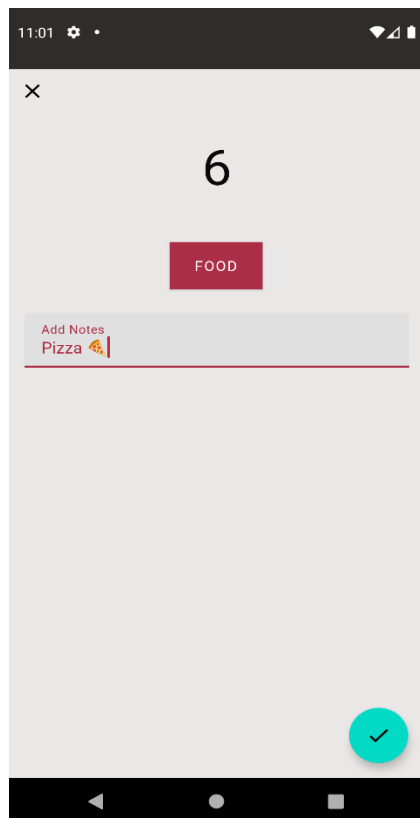


Figure5 [Add Item]

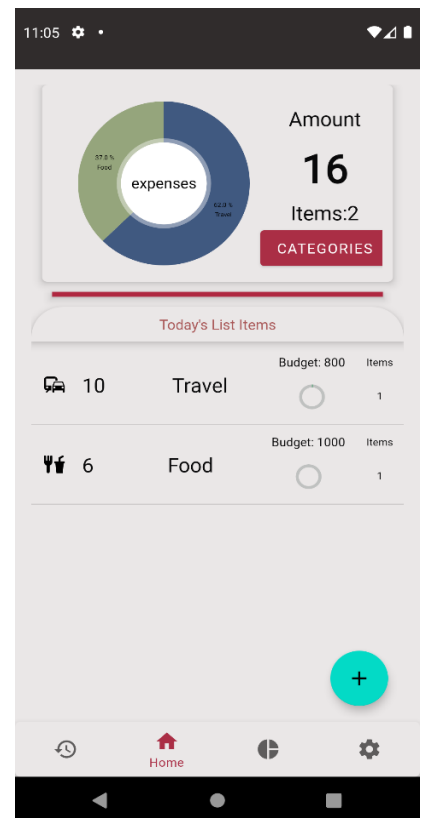


Figure6 [Home with items added]

From Fig. 6, you can see that that user has spent \$16 on 2 items which is shown in the home screen. Also, the list shows individual expenses and how much amount is spent from each unique category. This enables user to understand if he is nearing expense limit on any category.

Clicking on individual category will give you a detailed view of your expenses.

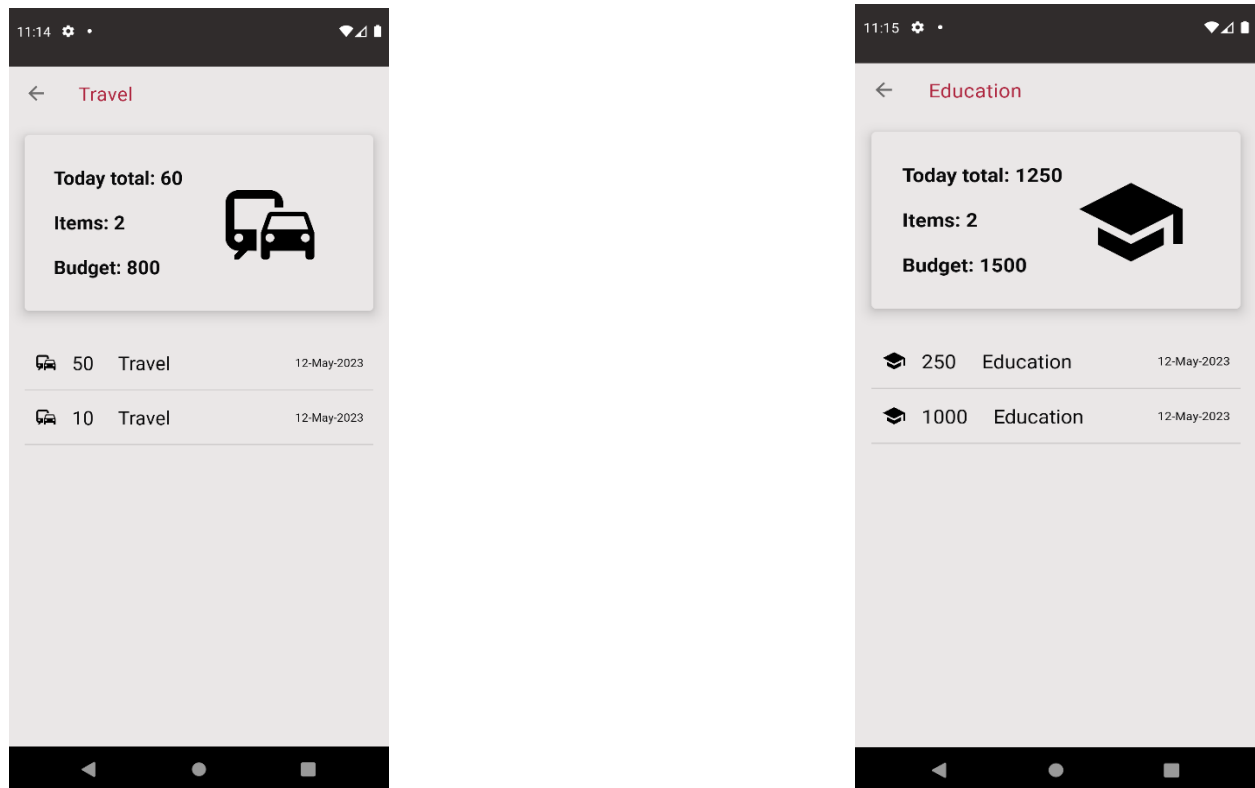


Figure7,8 [Individual Category Info]

History:

It is important for a person to remember when and how much he had spent on a specific thing. This tracking not only helps an individual to become financially wise but also in case of item returns and recurring expenses, it is essential to know the last transaction day.

Our app provides this facility of listing individual expenses date wise. If a user wants to know what he purchased on a specific day, all he/she needs to do is click

on the history tab of the application which will lead him to his/her list of expenses arranged in a date wise manner.

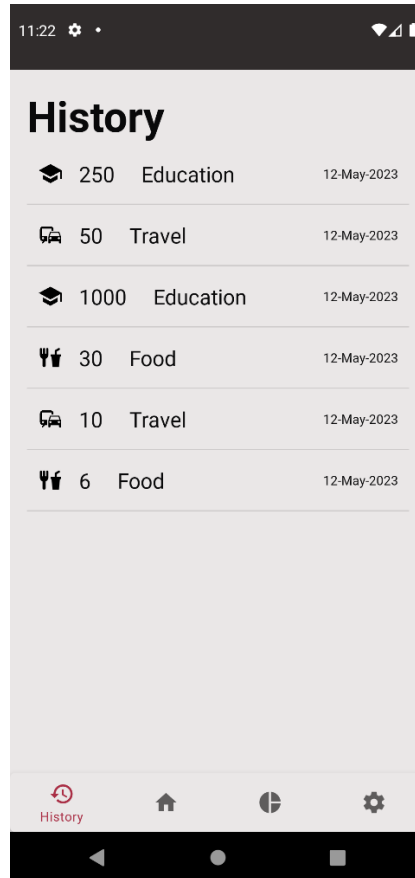


Figure9 [History]

Statistics:

This app not only provides the date wise expense list but also collates all the data creates a graph of expense for user's info. Numbers are eye catching and when the data is presented in the form of a graph, its impact is massive.

When the user clicks on the statistics graphic on the bottom of the screen, he/she will be taken to the corresponding screen which has two graphs. The first graph shows category wise expense the user has made in the past one week and the second graph shows the same content on a daily basis.

The graph helps user compare his/her spending habits and trends which will empower him/her to either allocate more funds to a particular category or cut expenses from one based on their spending records.

The figure below shows the statistics screen on the app.



Figure10 [Statistics]

Settings:

The settings consists of several options for the user which include,

a.) **Theme:** Default theme of the app is light mode however it provides the option for user to view it in a dark mode. To do that user has to simply click on Settings > Theme > Dark. This will make the entire app dark. And if the user wishes to turn back to a light theme, he/she can repeat same step but select light instead of dark.

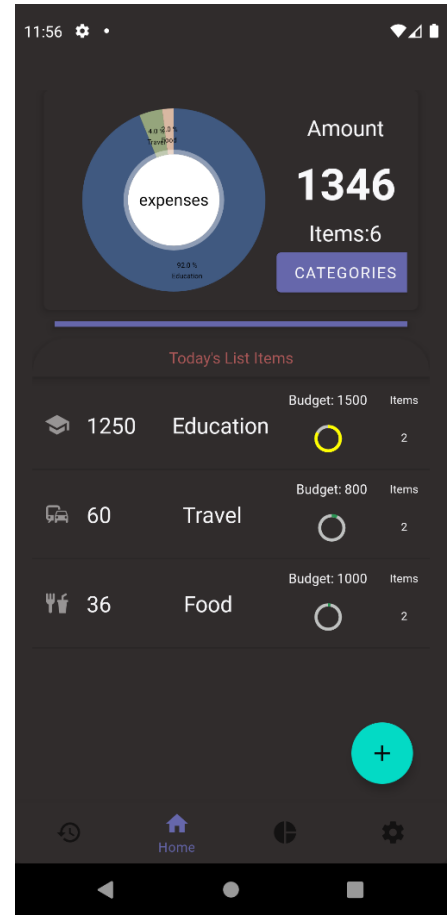
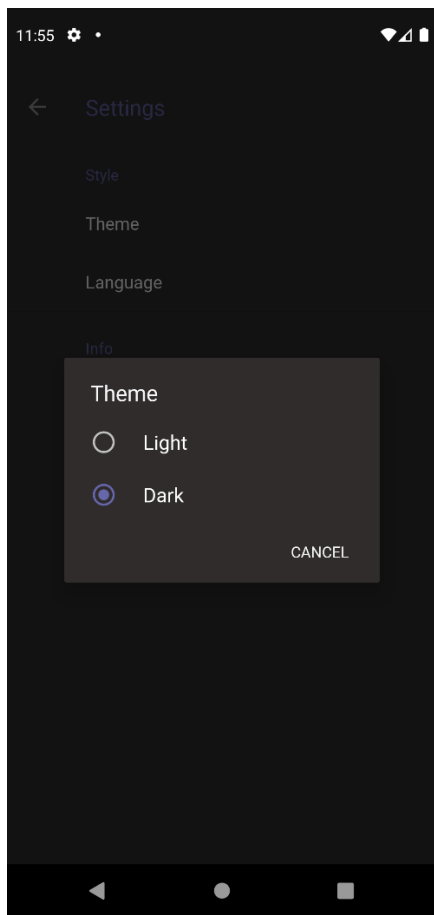


Figure11,12 [Dark Theme]

b.) **Language:** The app supports multiple languages which include English, Spanish, Telugu and Malayalam. In order to change the language, user has to click settings > languages. This will lead him/her to the language settings on phone. By changing the language of the phone, the user can change the language of the app. Figures below illustrate how homepage of app looks with various languages.

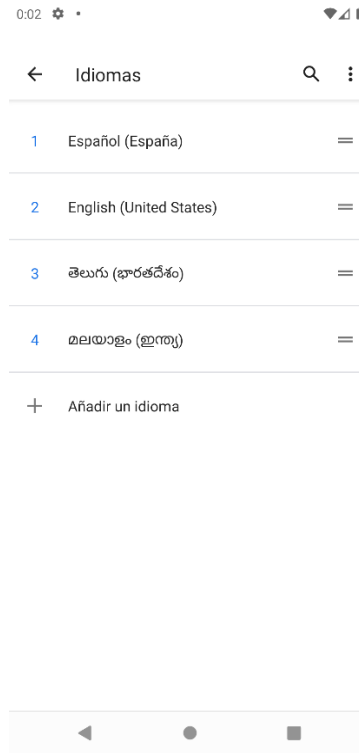


Figure13 [Language Settings]

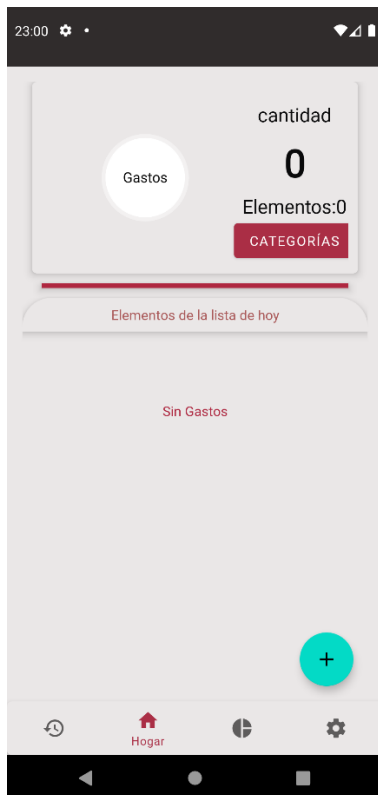


Figure14 [Spanish]

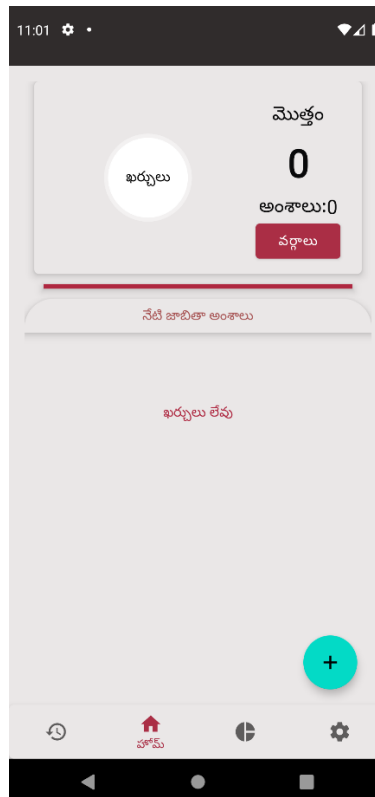


Figure15 [Telugu]

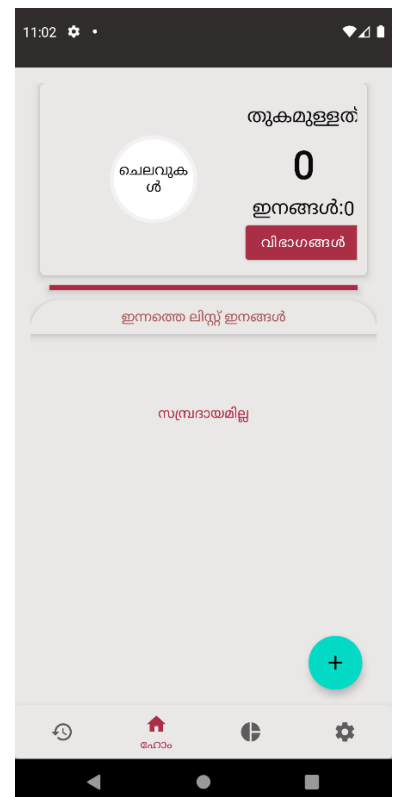


Figure16 [Malayalam]

c.) **About:** The about page as the name suggests consist of details of the app developers. It consists the list of people associated in the creation of this app and what role each played in its development.

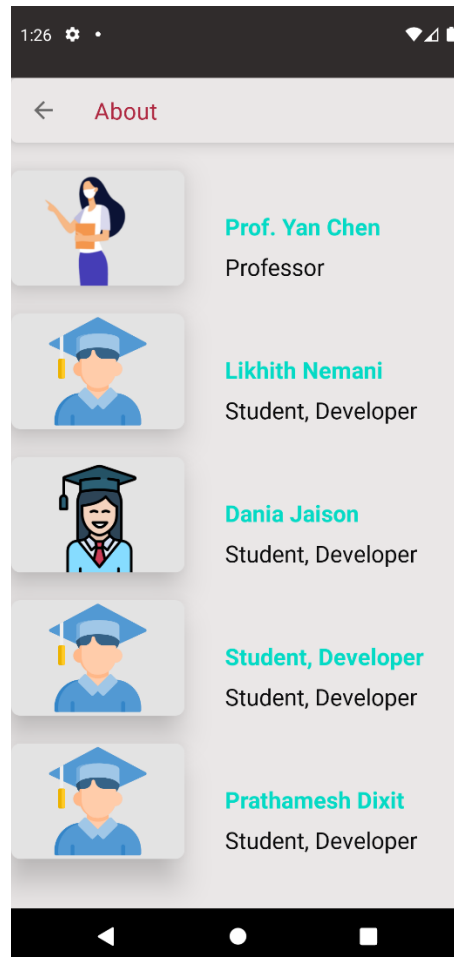


Figure17 [About]

d.) **Help:** The help contains a brief description of the app and also contains the contact email for the developers using which the user can report issues related to the app.

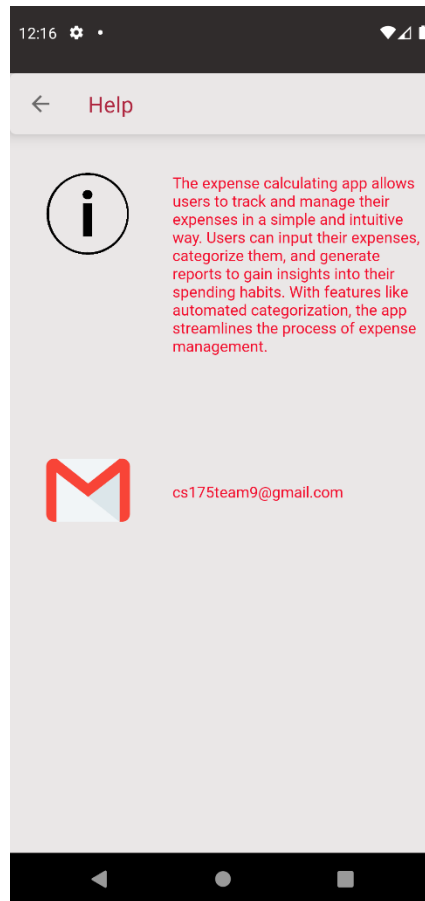


Figure18 [Help]

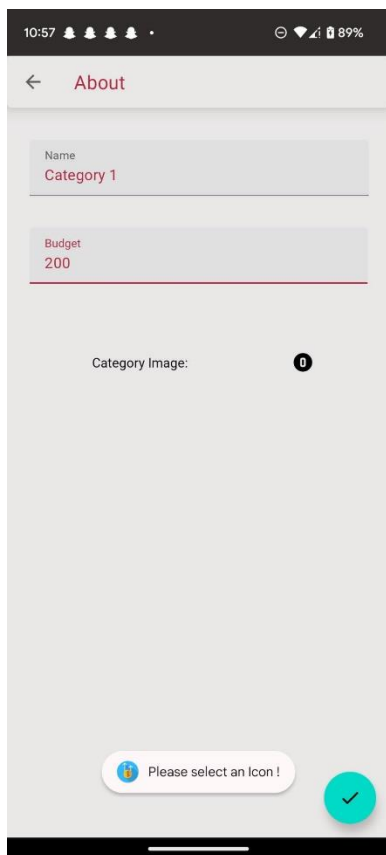
REFLECTION

Working on the development of this application taught us how to collaboratively work on a team project. In order to achieve deadlines established by the course itself as well as team-made deadlines to complete the project in an efficient and timely manner, we learned how to manage a team project by delegating different duties to one another. It was initially challenging to manage the many jobs,

purposes, and skills that each of us held. But as we worked on the application, we gained more practice collaborating with people who have different areas of expertise. Overall, it was a fantastic learning opportunity that will aid in developing good teamwork.

INPUT VALIDATION

Creation of Category: You need to provide the name and icon. The budget is optional. It will show an error message if the name or icon is missing.





10:57 89%

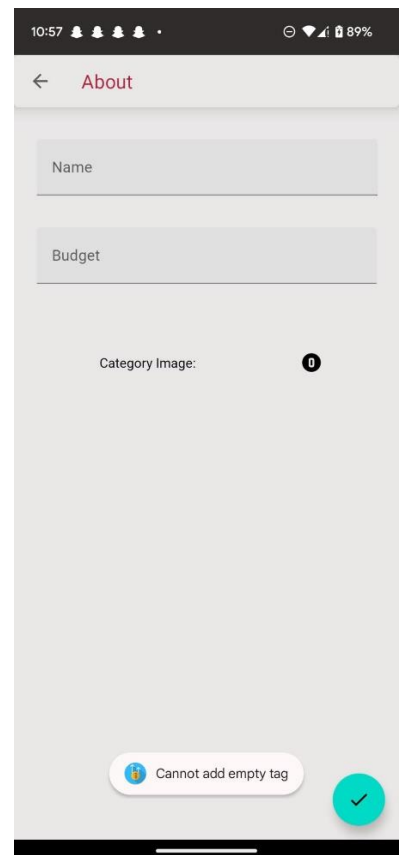
← About

Name
Category 1

Budget
200

Category Image: 

Please select an Icon ! 




10:57 89%

← About

Name

Budget

Category Image: 


Cannot add empty tag 

Figure19 [Category Creation]

Creating Expenses: The amount is compulsory, notes and categories are optional. An error message will be shown if you try to save an expense without the amount. In case you submit an expense without the category, the expense will get added to a new category called “Others”.

All subsequent expenses without category will be added to this category.

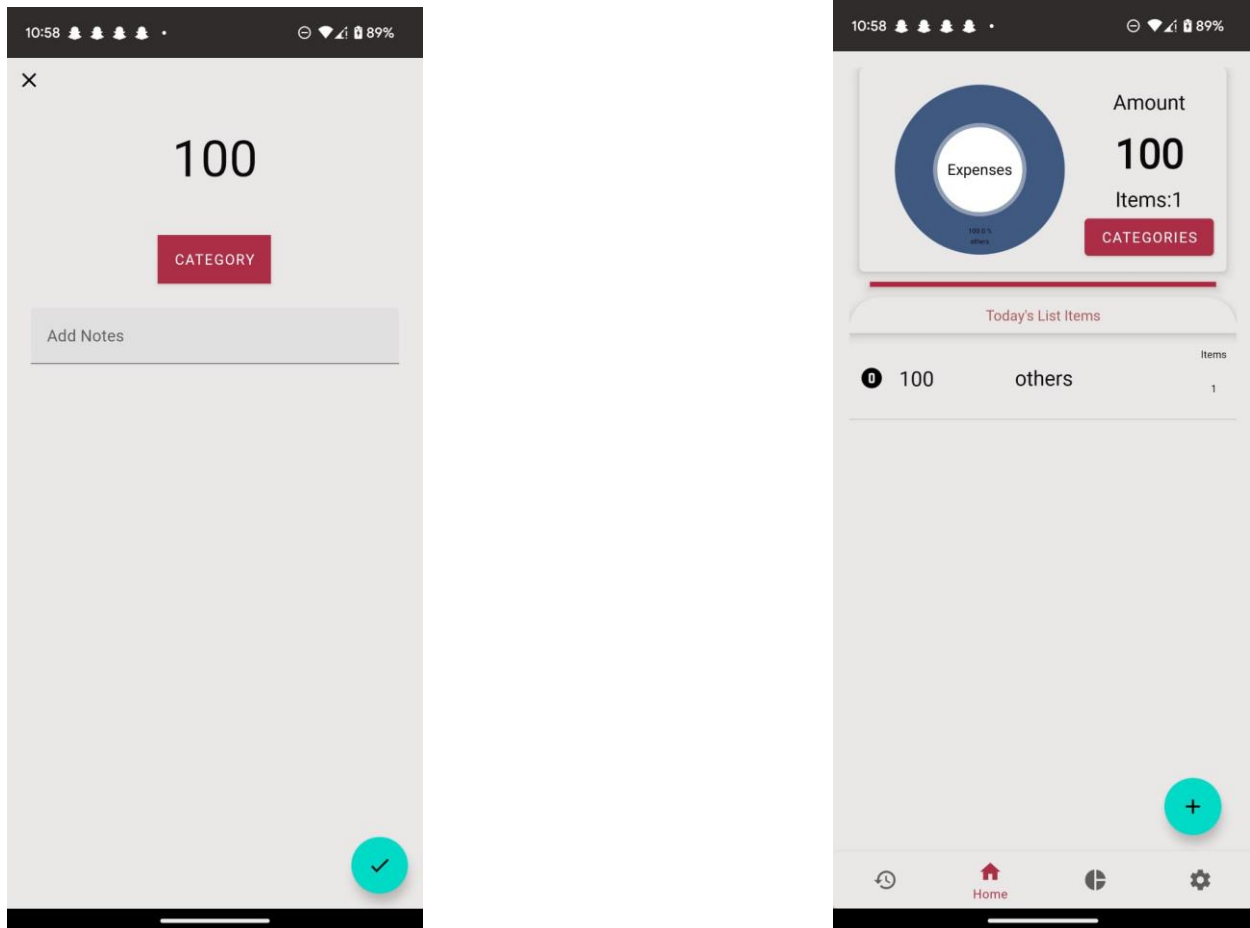


Figure20 [Adding New Expense]

IMPORTANT LINKS

Project Repository: <https://bitbucket.org/cs175-likhith-nemani/expense tracker/src/master/>

Project Demo:

https://drive.google.com/drive/folders/1AwyxzcFjggZzS0w6hT9Cjf_jnmhzM7D?usp=sharing