

PROJECT REPORT

GROCERY APP

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Project Title : Grocery App

Objective : To build an android application that can be used to make a list of the grocery items that you intend to buy.

Demo Video drive link :

<https://drive.google.com/drive/folders/107YQIFKkIKIdlaM3Eu2JT0oGVG-X0w5J?usp=sharing>

Introduction :

Android is an operating system built on the Linux platform that is primarily intended for touchscreen mobile devices like smartphones and tablet PCs. first created by Android, Inc., a company that Google financially sponsored and eventually acquired in 2005. Google makes the source code for Android available under the Apache License. Device makers, wireless carriers, and hobbyist developers are all free to modify and distribute the software thanks to the open source code and permissive licensing. The process through which new applications are developed for the Android operating system is known as Android software development.

Android Software Development Kit is used to create applications in the Java programming language. The software used to create android apps is called ADT (Android Development Tools). It essentially contains the Eclipse IDE, a multilingual Integrated development environment (IDE) with a base workspace and an extensible plug-in framework for environment customization. The ADT plugin is preconfigured and supplied with the IDE in the most recent version.

Overview and Purpose :

The Project that I made is an android application called “**Grocery App**”. It is built using the powerful and newly emerging programming language KOTLIN. Kotlin being coder friendly makes it easier to create numerous applications with ease and utmost efficiency. The main purpose of the

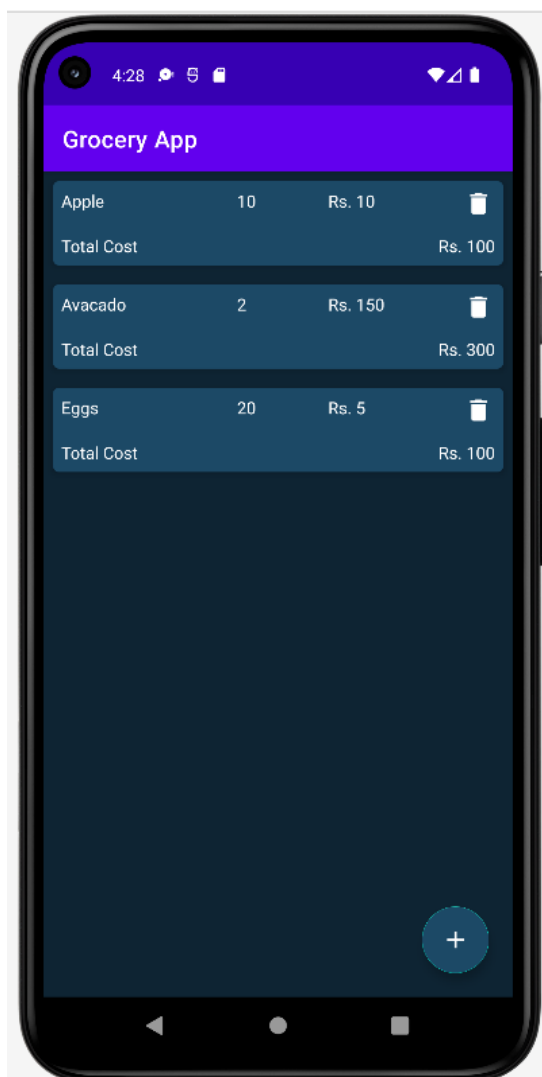
app Grocery App is to overcome the current generation's problem of forgetting things. The most important thing that they forget is the list of items to be bought at shopping. So, the app helps the user to note down all of the items that he/she is planning to buy beforehand.

Literature Survey :

Existing problem and approach : So to overcome the current problem there are notepads in their phone, but the notepad is not organised, he/she has to create his/her own table or columns to make a list of different items belonging to different sections of the groceries. Like vegetables, soaps, stationary etc.

Proposed solution : To resolve the above discussed problem I tried creating an app called Grocery App where the user can make a list of all the items that he/she is planning to buy while shopping.

Theoretical Analysis :



As shown on the left the app can be used to add or delete Items that we intend to buy at a store. The bottom right plus button is used for adding the items. A more detailed version of the app is shown in the next pages of the document.

Software Requirements :

KOTLIN programming language
Android Studio
MVVM
Room
Coroutines & RecyclerView

Experimental Investigations:

Before and while creating the application using KOTLIN language I have gone through various topics in order to make the best possible user friendly application. I have done the various courses provided on the course page and even answered various quizzes.

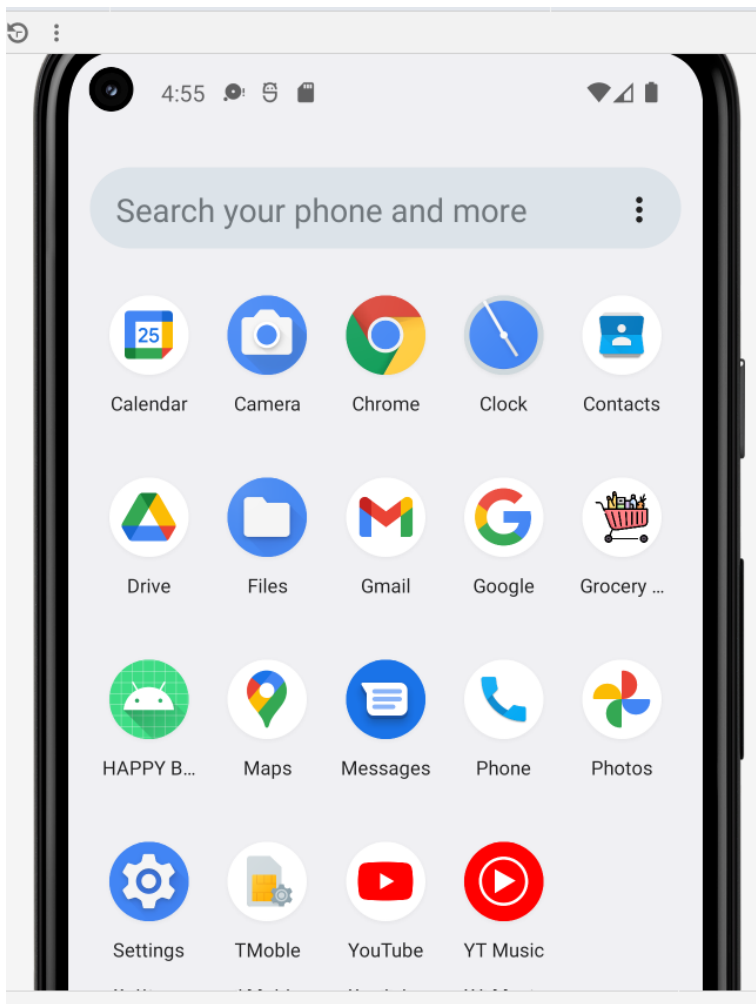
Flowchart :

Created a Grocery Android App called “Grocery App” using MVVM and Room Database in Kotlin. With this application, the user will be able to note down the grocery items that he/she is going to purchase.

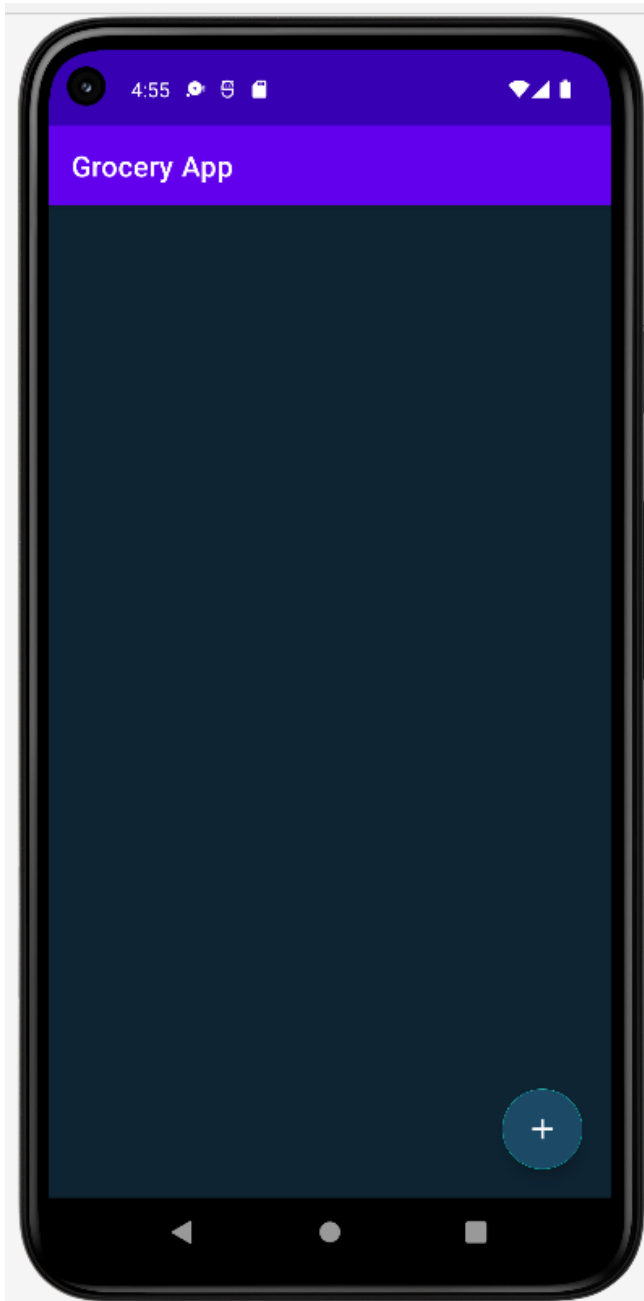
In this project, we made use of :

- MVVM (Model View ViewModel) for architectural patterns
- Room for database
- Coroutines and RecyclerView to display the list of items.

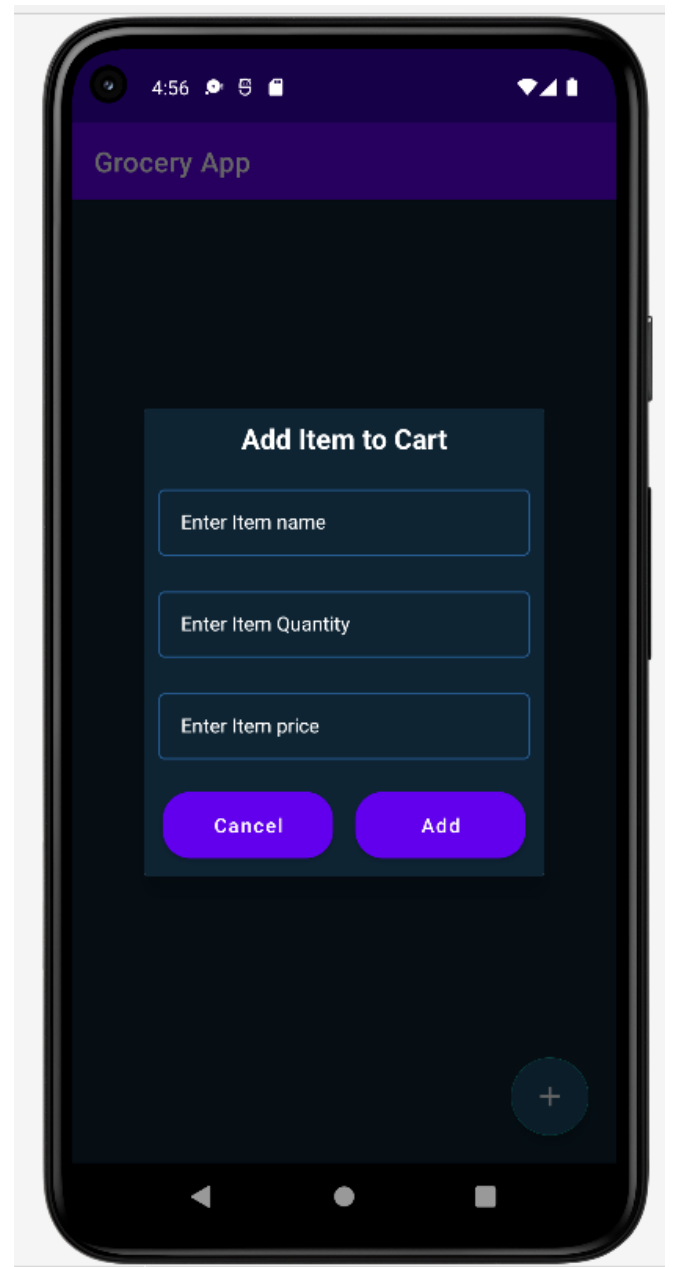
Result :



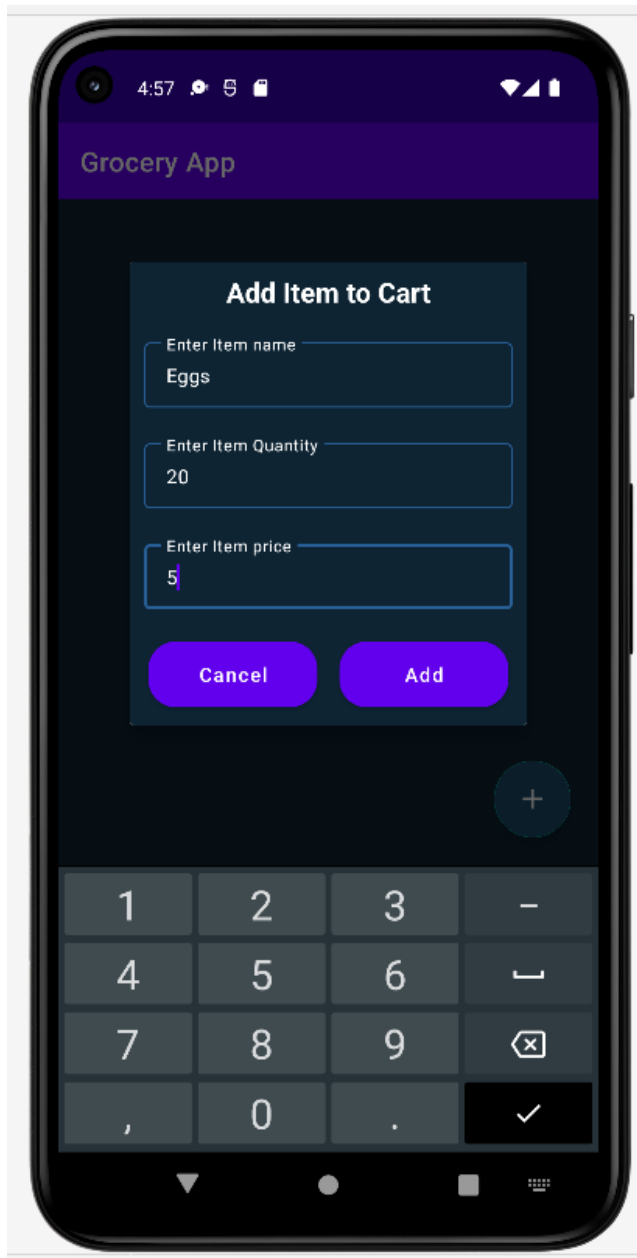
Initially when the app is installed the app appears in the apps list named Grocery App with the seen icon towards the right corner.



When opened for the first time there is no activity visible as we have not used it. We can see the app's name at the top with the ADD option (+ sign) at the bottom right corner. Let's make our first note of a grocery item.

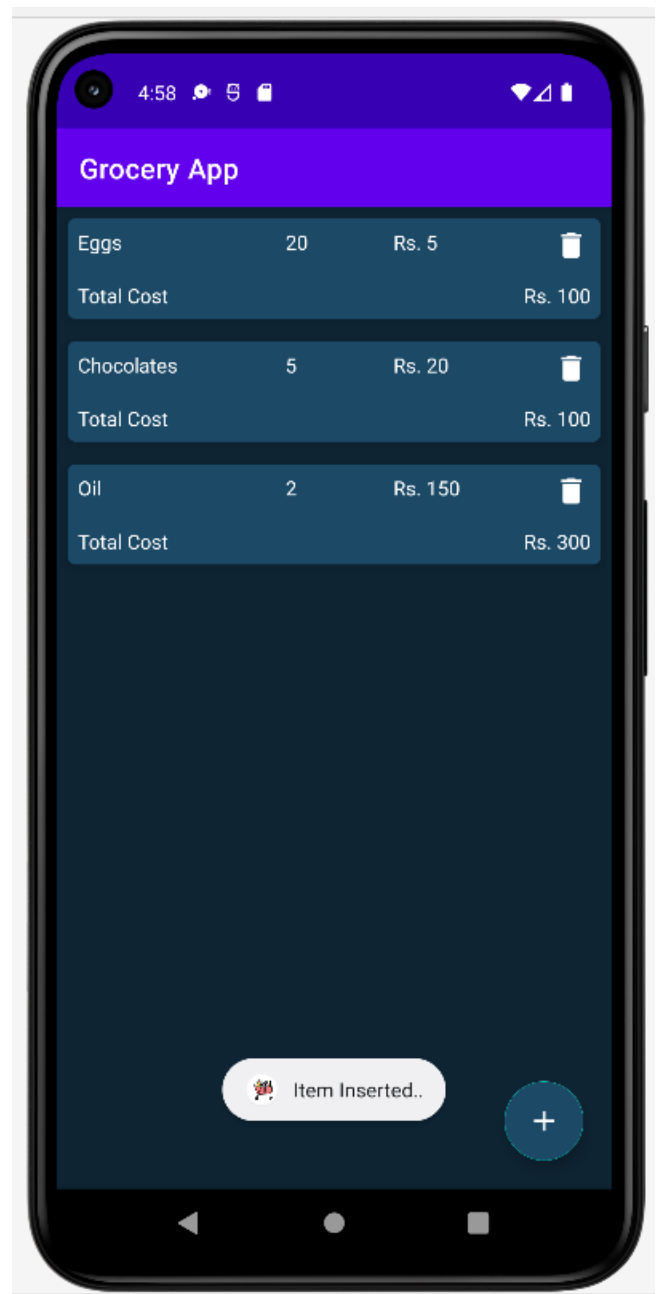


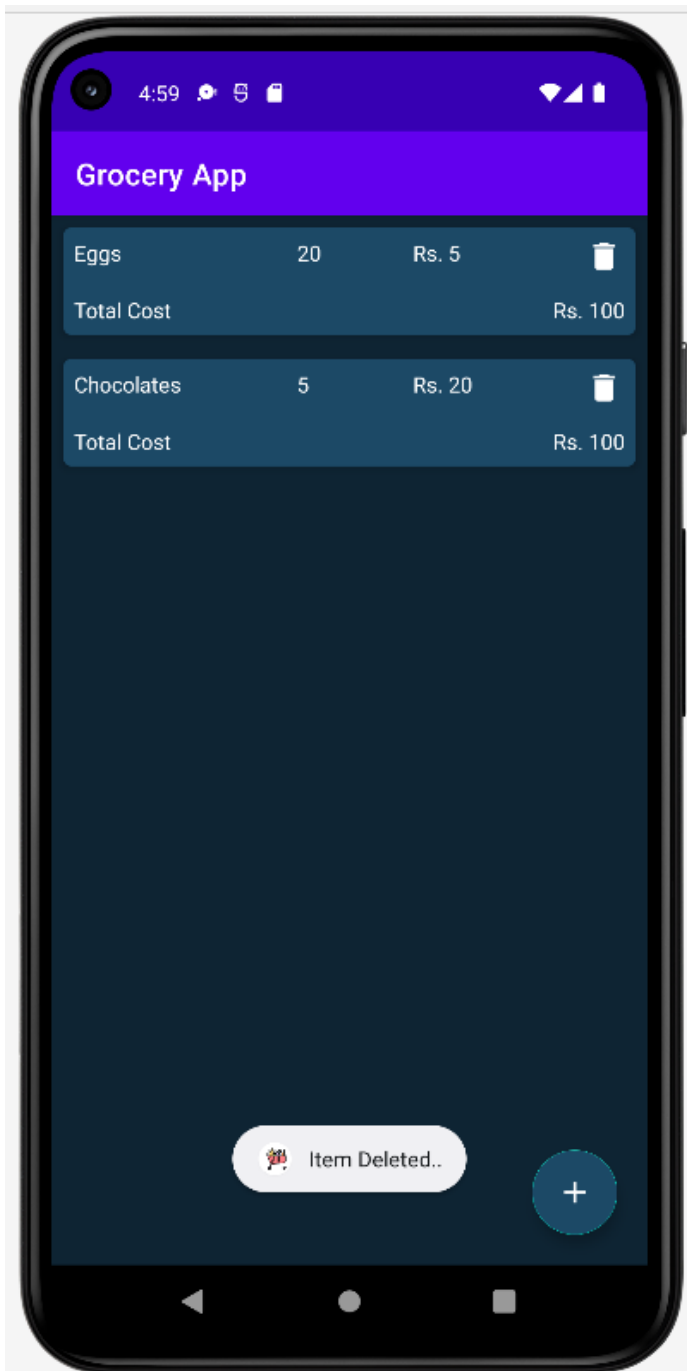
This screenshot shown to the right is the pop up window that appears after clicking the + button. We have 3 blanks to be entered in order to note down the grocery items details.



You can fill in the blanks with the item that you want to buy at the shop. Here I filled the Item NAME as Eggs Item QUANTITY as 20 and Each Item PRICE as 5. After entering the details click the ADD button.

I have filled another 2 items named Chocolates and Oil. We can see that for the above item, Eggs filled there are even details about the Total Cost of the item i.e 100. Similarly for the other two items. We can see the notification that a new item is added at the bottom of the screen.





The user can even delete an item if he feels like not buying it. The delete option is shown to the right for each item block. Here I deleted the Oil item and we can see that at the bottom there is a notification that an item is deleted. So, this is the working of the app in a very detailed manner. Which is even explained in the demo video link that is attached at the end of the report.

Advantages/Applications :

The application is a very user friendly and less complex way for noting down the groceries to be bought. Can help us in not forgetting what to buy. Make our notings more organised rather than writing in a notepad in the mobile where there is no organised manner.

Disadvantages :

- We have to delete our current list after our shopping in order to note down a new list.
- If we have to write down a different list that is to be bought at a different shop, there is no such option.
- Can't have a report on our monthly expenses.

Conclusion :

Created a Grocery Android App called "Grocery App" using MVVM and Room Database in Kotlin. With this application, the user will be able to note down the grocery items that he/she is going to purchase.

In this project, we made use of :

- MVVM (Model View ViewModel) for architectural patterns
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Future Scope :

In future this application can be developed with a more useful inputs like:

- Getting the total price that is spent on buying the groceries bought that day.
- Having the note of groceries that should be bought on different days, in particular having an option to note down the groceries to be bought for different days in a calendar.
- Note down the expenses on each day of a month and get a total expense report at the end of the month, year and compare with the previous months and manage our expenses.

Bibliography :

Smart Internz resources on KOTLIN language.

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