PROJECT ON ANDROID APP DEVELOPMENT

Google Supported Virtual-Internship by

PROJECT NAME: GROCEY APP FOR STORING THE ITEMS IN THE DATABASE

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1. Introduction

1.1 Overview

We are going to build a grocery application for Android Operating system using Android Studio. In this project, we are using (MVVM) for architectural patterns, Room for database, we also use different kind of Layouts to view the items we have added to it.

Shopping is one of those activities which most people like to do it online. People have problems in shopping such as limited time, Transportation facilities, etc especially for those people in the house where both the family members go to work. This is where our idea of building the grocery app starts, which is very useful for those people mentioned above. This personal grocery shopping is an innovative app that allows the customers to get all their needs fulfilled. Moreover, people can order the product from home instead of going around for long distances for shopping. In addition, this app could help people who are facing health problems and unable to buy something physically to avoid future problems.

1.2 Purpose

The goal of this project is to make an app that stores the user items in a cart and can modify and delete the added item in the list and to develop a reliable system, which helps everyone to remember things by storing the items list in an app so that they do not forget any items when they go shopping.

2. Literature Review
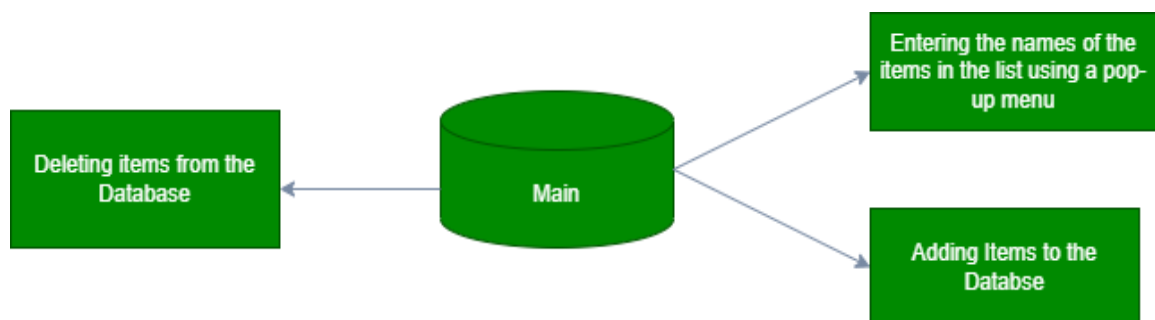
2.1 Existing Problem

It's not easy for the users to remember every item in this hectic lifestyle; they frequently can't recall their required necessity. People try to remember their grocery items list. But at last they will one or the other item. Sometimes they write them on a paper but in a hurry forget to grab it. Sometimes they write in their notepads but forget to write the quantity required to be purchased and they also don't write the price of it and when they go directly they couldn't buy the desired amount of goods they want to buy because of the insufficient funds

2.2 Proposed solution

We decided to build an app to store the items in the database for their future use. After buying the items users can delete the added items in the database in which they write the quantity of the items and the price of it so that they carry the required funds while they go shopping so that they buy desired quantity of their goods

3. Theoretical Analysis

3.1 Block diagram:

3.2 Hardware / Software:

a) **Software's Used:**

Operating System: Windows 11
Software: Android Studio
Language Used: Kotlin
Emulator: Pixel 3 XL API 31

b) **Hardware Used:**

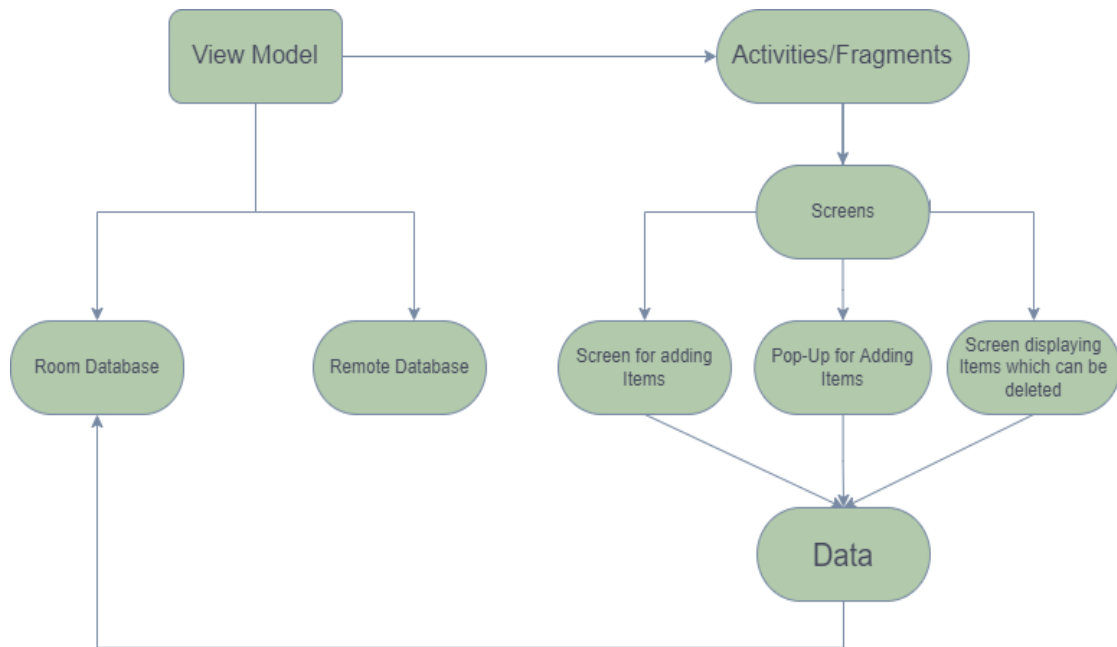Processor: Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz   2.40 GHz
Ram: 12.0 GB (11.9 GB usable)
System type: 64-bit operating system, x64-based processor

4. Experimental Investigation:

I have experimented many things while working on the project. I have tried to add items without price and quantity I was unable to add them. I have tried for many other things such as showing all items list and then when you press add then it will be shown in the list, by doing that the items would be limited, So I decided to get the input from the user such as name of the item, quantity and price and then store them in the database to show the list to the user and gave a delete button to remove them from the list after they buy them. So that it would be user friendly and the user can add variety of items they want.
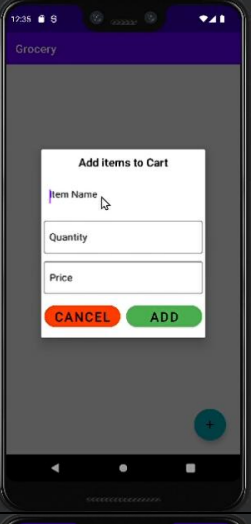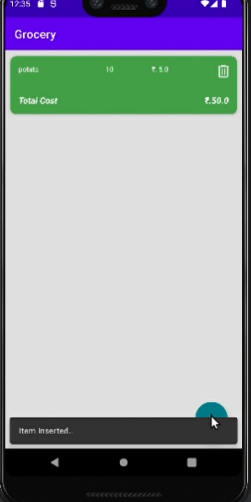
5. Flowchart:

6. Result:

Finally I made the application using room database which can be used by the people to add the items using a pop-up menu by clicking on the add button and after that from the list they can see the items and delete from the same.

The results are in the table below:

S. no	Picture	Remarks
1		Screen where you can add things by clicking the add button on the bottom.
2		After clicking the add button you will see this pop-up
3		After entering the details in the pop-up and clicking add Button we see this

4		After adding many items to the list it looks like this
5		Slowly after Deleting some items it looks like this
6		After removing all the items from the list it looks like this

7. Advantages and disadvantages:

a) Advantages:

People can write things at one place and they remember what they want and according to it they carry money to the store accordingly to buy things.

b) Disadvantages:

People don't use their memory to memorize things as so they lose their memory power and they become lazy.

8. Applications:

This application is mainly for storing the list of any item with their name, price and quantity. So people do not forget things when they go to the market. I can be mainly used by old age people who forget things very easily.

9. Conclusion:

This grocery application will help to store the list of data items include name of item, price and quantity required. Users can store his/her data in the list.

10. Future Scope:

This application helps to store the list of items by User. In Future we will also add scheduled addition of items according to requirement of user as well as we will create a user login portal.

The features which can be added in future are:

✓ Add User Panel

✓ Add Deletion of Quantity on Items list panel

✓ Provide Login Authentication

✓ Add Image to user Product and Rating

11. Bibliography:

Websites used for the project:

a. https://www.geeksforgeeks.org/guide-to-install-and-set-up-android-studio/
b. https://www.youtube.com/watch?v=vdcLb_Y71Ic
c. https://material.io/resources/color/#!/?view.left=1&view.right=0&primary.color=1B5E20&secondary.color=039BE5
d. https://app.diagrams.net/
e. https://developer.android.com/courses/pathways/android-basics-kotlin-unit-5-pathway-1
f. https://stackoverflow.com/

Appendix:

Git Hub Project Repo:

https://github.com/smartinternz02/SPSGP-80915-Virtual-Internship---Android-Application-Development-Using-Kotlin/tree/main

App files:

https://github.com/smartinternz02/SPSGP-80915-Virtual-Internship---Android-Application-Development-Using-Kotlin/tree/master

Drive Link for demonstration Video:

https://drive.google.com/drive/folders/1-a_JmjErcXIrZ8CuvwBJVqazhGizrntF?usp=sharing

Android Developers profile Url:

https://developers.google.com/profile/u/110094410887131759829

Git Hub Username:

https://github.com/saisrimanyu