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SmartInternz

Project Report

Android App Dev Using Kotlin

BY: HARSH GARG

Acknowledgement

The success and end result of this project requires a lot of guidance and endorsement from many people and I am fortunate to get all of these throughout my entire internship project.

I was able to accomplish this project only with such assistance and supervision and therefore, I will never forget to thank them.

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My thanks to our project guide Mr. Sandeep for providing us with all the information we need to develop a better system and showing us great interest until our project work is completed.

In addition, I would like to express our heartfelt gratitude to all the other staff/mentors for their timely support.

Yours Sincerely,

Harsh Garg

Project Report

Virtual Internship

(Android Application Development Using Kotlin)

Project Name: Grocery Lister Android App

Problem Description:

As we can't remember everything, users frequently forget to buy the things they want to buy. However, with the assistance of this app, you can make a list of the groceries you intend to buy so that you don't forget anything.

Objective:

Grocery Lister App aims to provide a comfortable experience while shopping daily need items. This project helps in assisting them in their tasks by providing a user-friendly interface to create list of items they want to buy and keep track of their purchases. This helps them to simplify the calculations by totalling the amount also making it easier to help them remember by saving it in database unless deleted. Its functionality also includes the taking note of items with quantity and amount mention.

Introduction:

Grocery Lister App, Android based application helps user to simplify the daily chaos of remembering the stuff they need to buy. This provides active database to list items out and its price in very efficient way. In this project, we are using MVVM (Model View View Model) for architectural patterns, Room for database, Coroutines and Recycler View to display the list of items

Scope in:

- Scope of this project includes giving users the ability to make lists of products they willing to purchase.
- Application helps user to simplify the calculations by totalling the amount while also making it easier to help them remember by saving it in database unless deleted.
- Its functionality also includes the taking note of items with quantity and amount mention.

Scope out:

- This project doesn't give users the ability to buy a product from a shop (online).
- It doesn't include information from real bank account to create an expense history.

Functionalities:

- Lists Creation / Deletion: User can manage the lists they create, they can add items, remove items from a particular list at any time. Users can also delete any list they have created
- Lists Price calculation: Once a user creates a list, this app automatically calculates the prices of products in that list and show the sum of product prices and the number of products in that list.
- Product Information Retrieval: Users have the ability to look through a list of products and select the desired product.

- The project has been developed using Kotlin programming language.
- The software, Android Studio used to develop application.
- For other testing purposes the emulator has been used and also been tested upon Android phone (specific model: Samsung A8+).
- MVVM architecture in android is used to give structure to the project's code and understand code easily. MVVM is an architectural design pattern in android. MVVM treat Activity classes and XML files as View. This design pattern separates UI from its logic. Here is an image to quickly understand MVVM.
- Room Database persistence library is a database management library and it is used to store the data of apps like grocery item name, grocery item quantity, and grocery item price. Room is a cover layer on SQLite which helps to perform the operation on the database easily.
- RecyclerView is a container and it is used to display the collection of data in a large amount of data set that can be scrolled very effectively by maintaining a limited number of views.
- Coroutines are a lightweight thread, we use a coroutine to perform an operation on other threads, by this our main thread doesn't block and our app doesn't crash.

URL's:

Google Developer's Profile:

https://g.dev/harshgarg

GitHub Profile Link:

officialharshgarg (Harsh Garg) (github.com)

Drive Link of APK:

https://bit.ly/3UlSArc

Drive Link of Demo Video:

https://bit.ly/3f6lag7

GitHub Repository Link:

https://github.com/smartinternz02/SI-GuidedProject-93234-1662359121.git

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Screenshots: