SYNOPSIS

ON

“FOOD RECIPE APP”

Submitted in

Partial Fulfillment of requirements for the Award of Degree

of

Bachelor of Technology

In

Computer Science and Engineering

By

(Project Id: 2A33)

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Synopsis

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Introduction

Food is the basic necessity to live no matter who you are, you should at least have some basic knowledge about cooking.

Generally, people living alone and with no skills in preparing food find it difficult to survive and end up eating outside. All thanks to the advancement of mobile technologies now one can simply learn and cook from the “food recipe app”.

Food Recipe App is a very useful app for people who love to cook and try out new recipes. This application provides user flexibility to search and save recipes with an additional capability to mark their favorite recipes. Recipes are from everyday cooks and chefs that have perfected the recipe over time.

The interface is clean and simple. It makes use of flutter button widgets capability to display options on home screen with image icons. The user can search recipes, view added favorite recipe list and can also filter their recipes.

The project has been implemented using flutter SDK and dart. Android emulator provided by android studio is used for the testing of the app.

Project Objectives

- Our aim is to help users cook great food with simplified recipes which are easy to understand and even easier to make.
- To help the user decide a recipe to cook from the ingredients available with him/her.
- To guide the user to the recipe based on the user's choices and needs.
- To help save the user money and time by tediously referencing cook books and buying ingredients he/she does not need.
- Offline availability of recipes.
- Structured UI.
- Smart search filters.

Feasibility Study

A feasibility study is an assessment of the practicality of a proposed project or system. During our preliminary Investigation at college (Department of Computer Science) we examine that the Entire affaire concerned with the "Request" to develop a new project. After getting information we check that the information is technical, economical and operationally feasible or not. The proposed system is reviewed considering three feasible studies, which are as follows:

- Economic Feasibility
- Operational Feasibility
- Technical Feasibility

Economic Feasibility: Our project is viable at minimum cost as the resources used in the of this project are all free. The Hardware/Software setup required is that the proposed system can be easily run on any dual core smartphone and as the software used to build system is VScode in windows 10 or we can build this in android studio also which is also free of cost. So, it does not cost high.

Operational Feasibility: This particular application can run on various platforms without any issues we are looking forward to improve user interface for glitch less experience. Apart from speeding of the operation is that user do not have to look anywhere else is search of any type of recipe it wants.

Technical Feasibility: We have used flutter SDK and Vscode to develop the Android/iOS application. Android studio emulator is used for its testing.
All the above-mentioned software is easily available on internet on their respective official websites.

Methodology / Planning of Work

- Use flutter SDK extension in VScode for developing the application.
- Import following packages using flutter Import command:

```
import 'dart:convert';
import 'dart:io';
import 'package: flutter/foundation. Art';
import 'package: flutter/material. Art';
import 'package:http/http.dart' as http;
import 'package:my_recipe_flutter_app/models/recipe_model.dart';
import 'package:my_recipe_flutter_app/views/recipe_view.dart';
import 'package:url_launcher/url_launcher.dart';
```

  And then create home.dart for creating the home page.

- Import following in main.dart:

```
import 'package:flutter/material.dart';
import 'package:my_recipe_flutter_app/views/home.dart';
```

  This main.dart will call the runApp().

- Then create recipe_view.dart to define the structure of recipe view. It will also hold the database for the recipes.
- Use AVD (Android Virtual Device) Manager from Android Studio for the testing of the application.

Facilities required for proposed work

Dart: Dart is a client-optimized programming language for apps on multiple platforms. It is developed by Google and is used to build mobile, desktop, server, and web applications.
Dart is an object-oriented, class-based, garbage-collected language with C-style syntax. Dart can compile to either native code or JavaScript. It supports interfaces, mixins, abstract classes, reified generics, and type inference.

Flutter SDK: Flutter is Google's UI toolkit for building beautiful, natively compiled applications for mobile, web, and desktop from a single codebase.
Flutter works with existing code, is used by developers and organizations around the world, and is free and open source.
Key features: -

- Fast Development
- Expressive and Flexible UI
- Native Performance

Visual Studio Code: Visual Studio Code is a freeware source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality.

Android Studio: Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems or as a subscription-based service in 2020. It is a replacement for the Eclipse Android Development Tools (E-ADT) as the primary IDE for native Android application development.

Hardware / Software Requirements

Hardware and software are the components which provide the background on which the project is built upon and used.
Hardware requirements of the project are: -

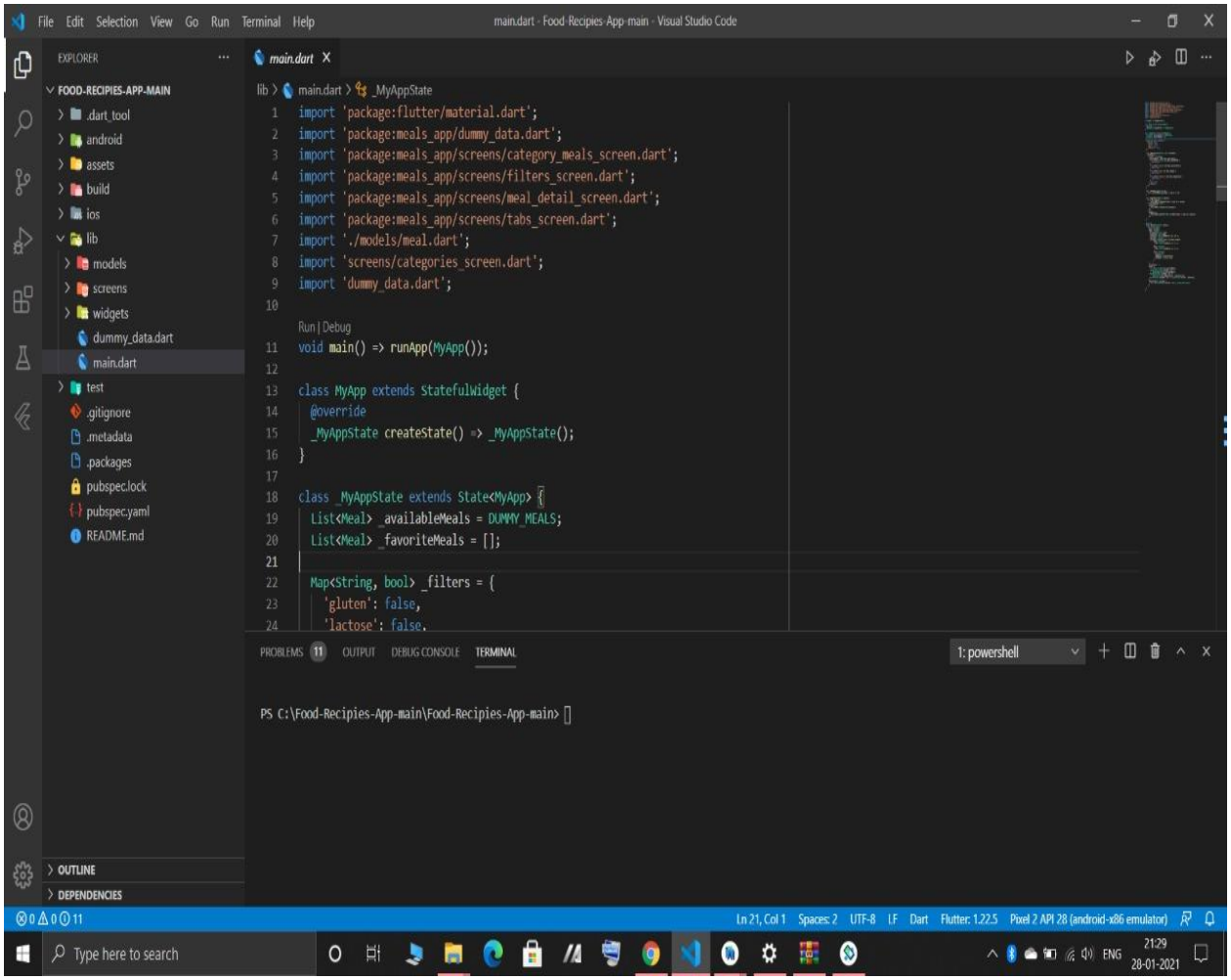
- 40 Mb free memory space (100 Mb recommended)
- 512 Mb RAM (2 GB recommended)
- Processor speed 1.8 GHz
- Recommended resolution 1080 x 1920 :420 dpi

Software Requirements of the project are: -

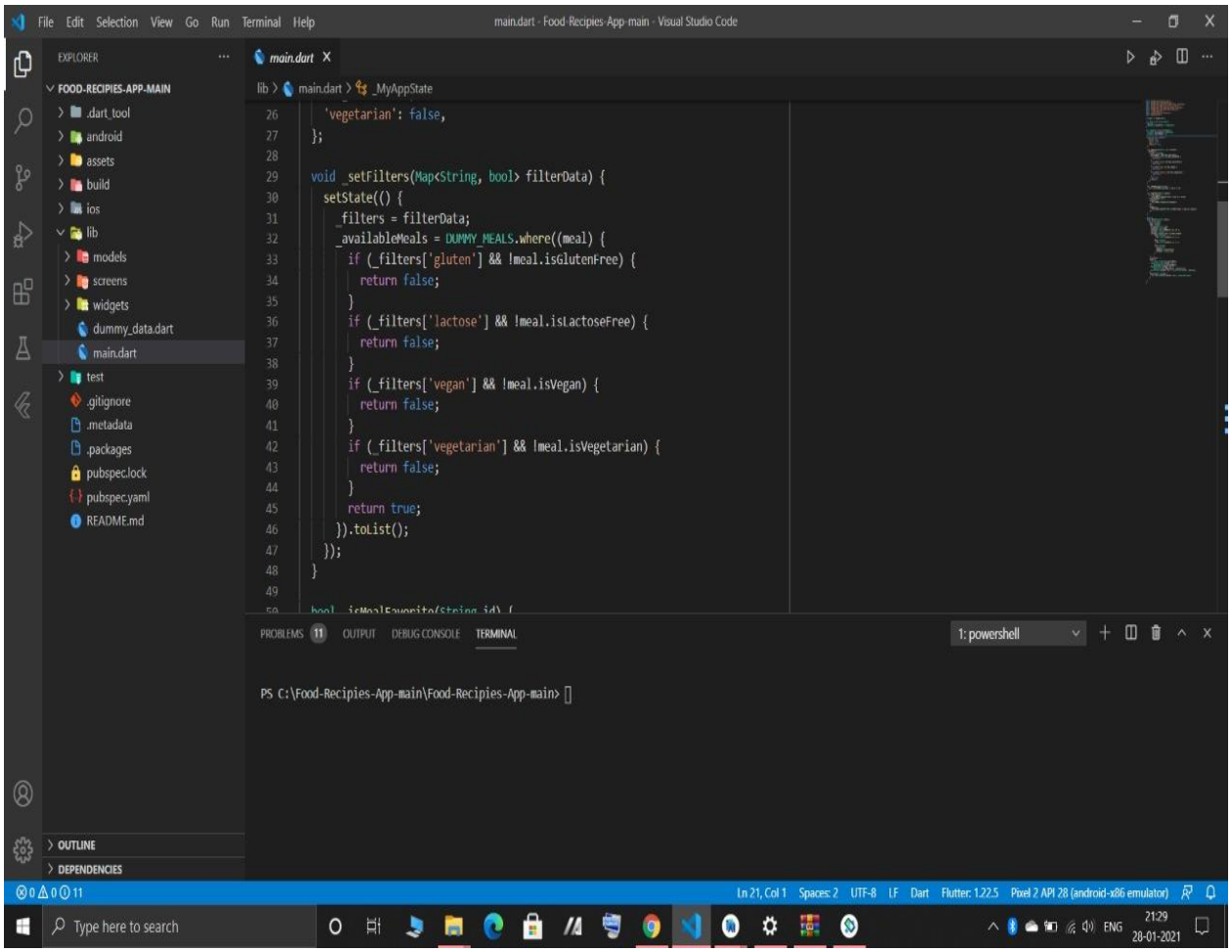
- OS – Android/iOS
- Android version 7.0 Nougat (android 9.0 recommended)
- iOS 10

Snapshots of the Code

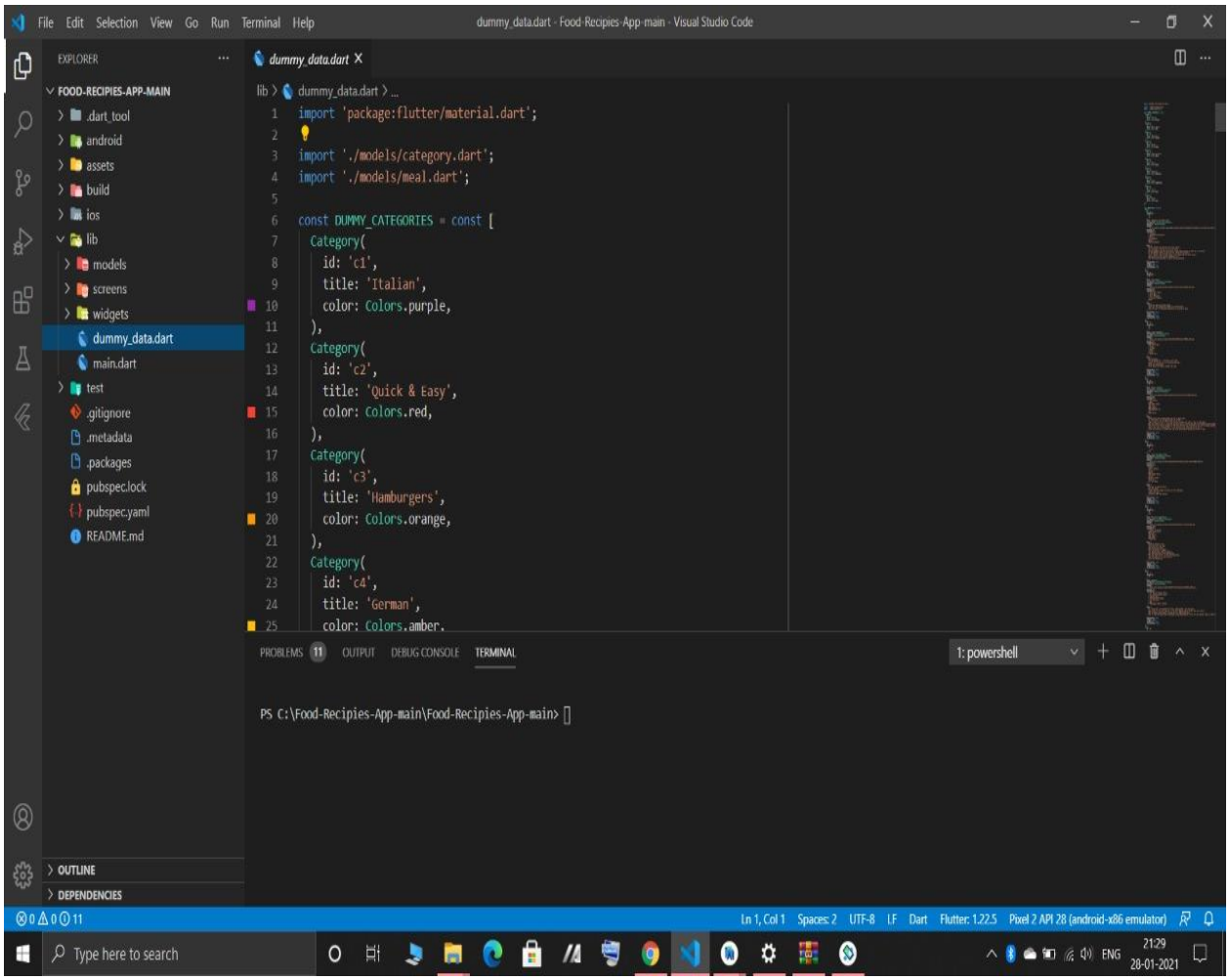
- main.dart file



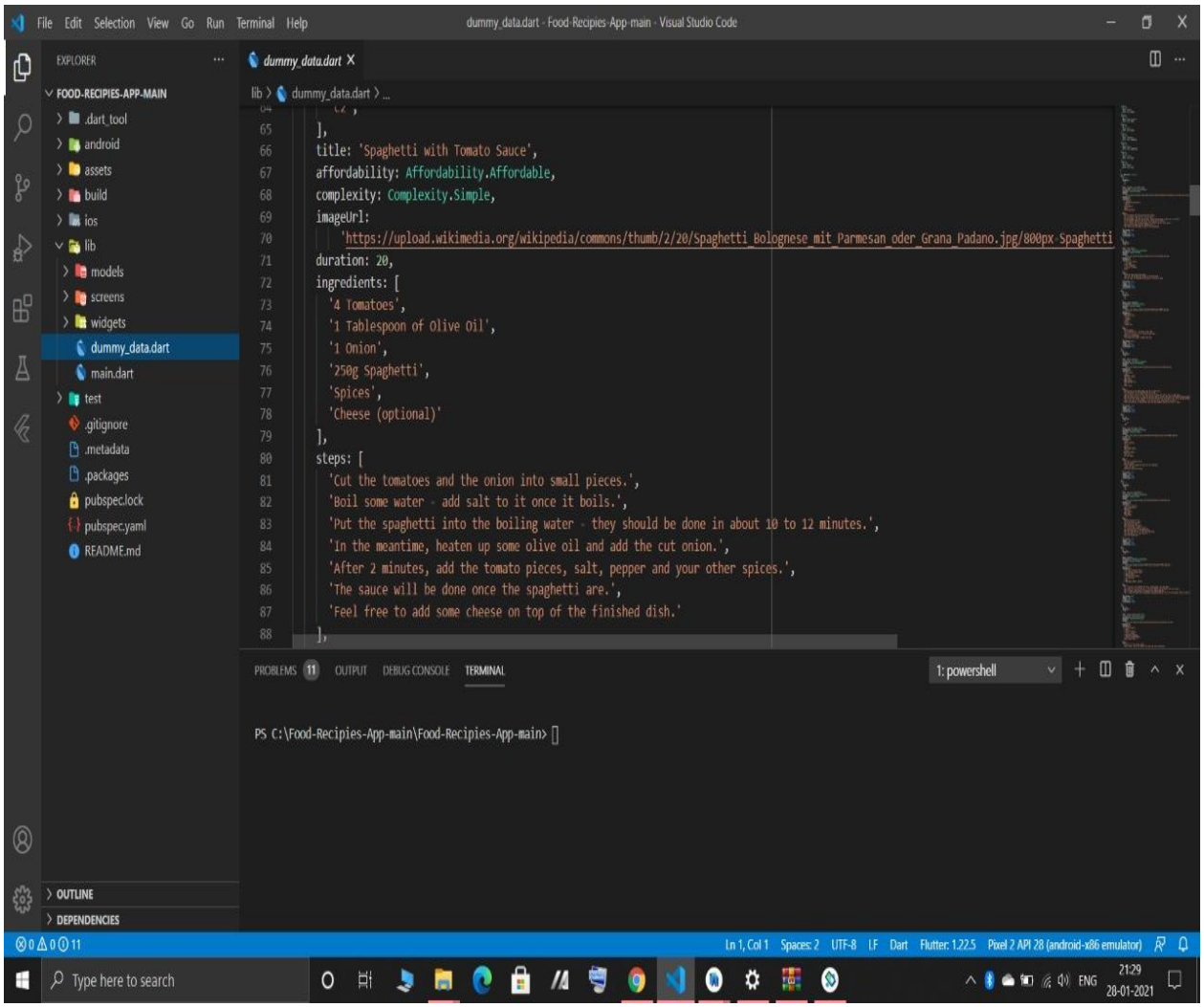
- Part where structure for filters is defined



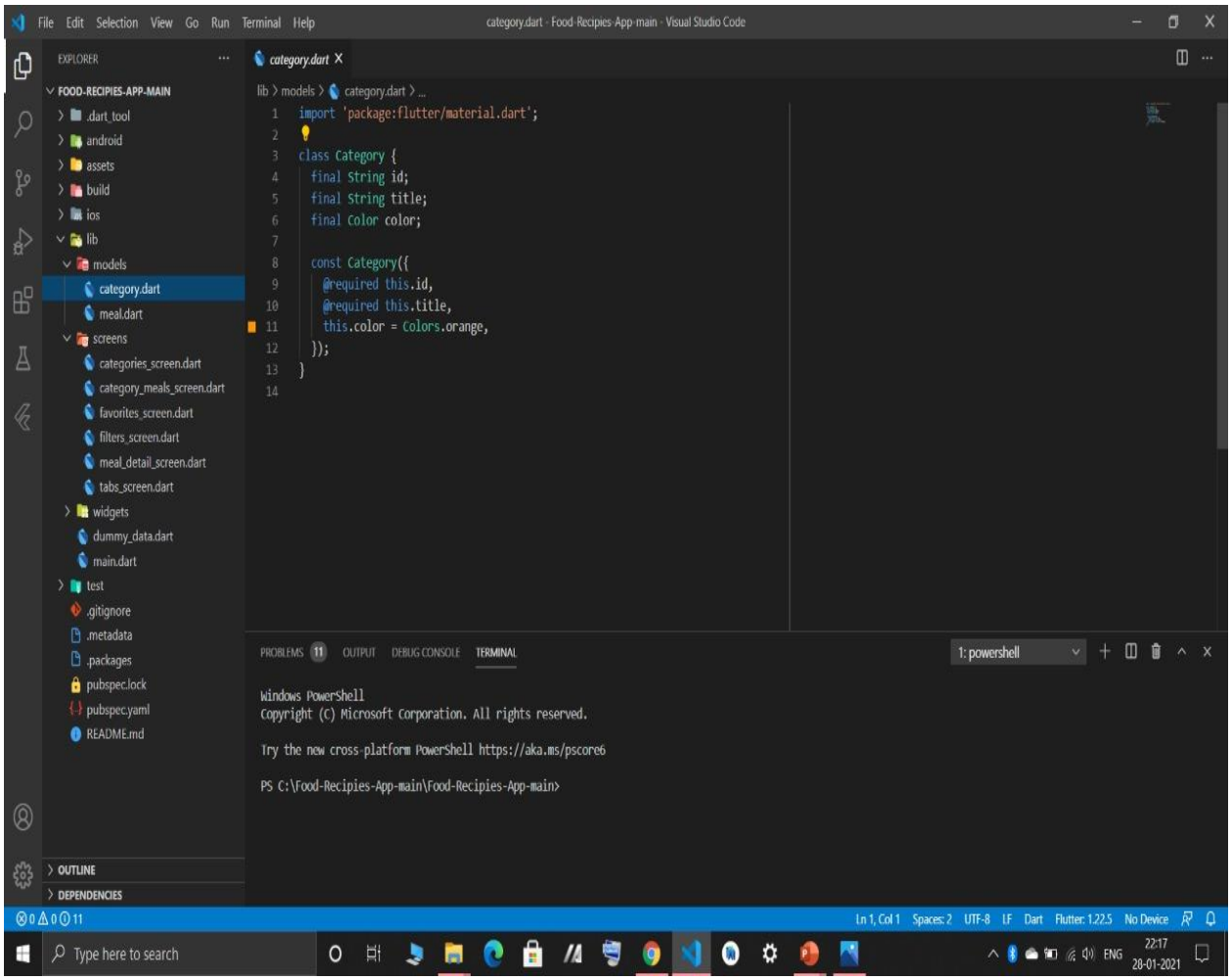
- dummy_data.dart file. Part where categories are defined is shown.



- Part where database of the recipes is stored and defined.

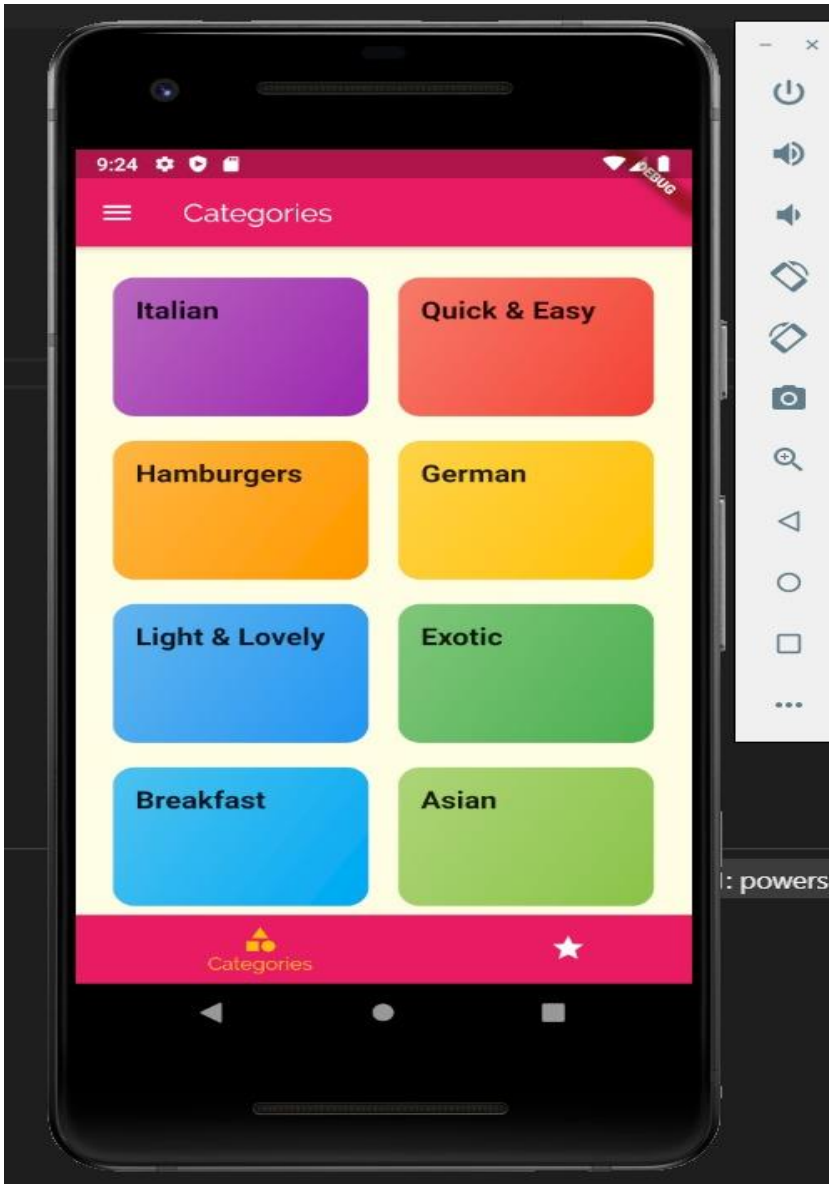


- category.dart file, where the structure for category widget is defined.



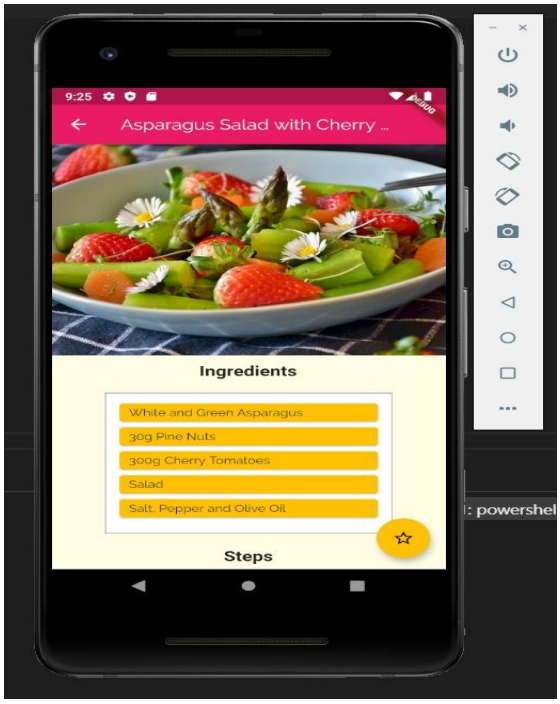
1. Home Screen /Categories Screen

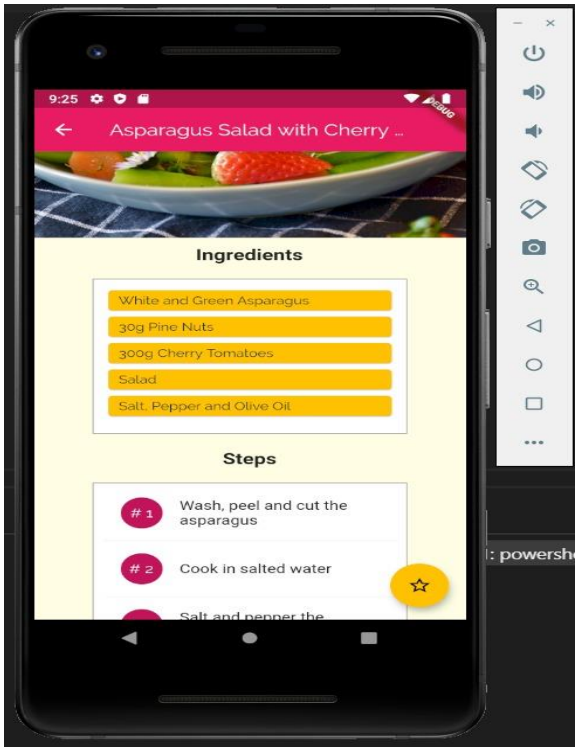
- 10 categories and cuisines are available.



2. **Recipes**

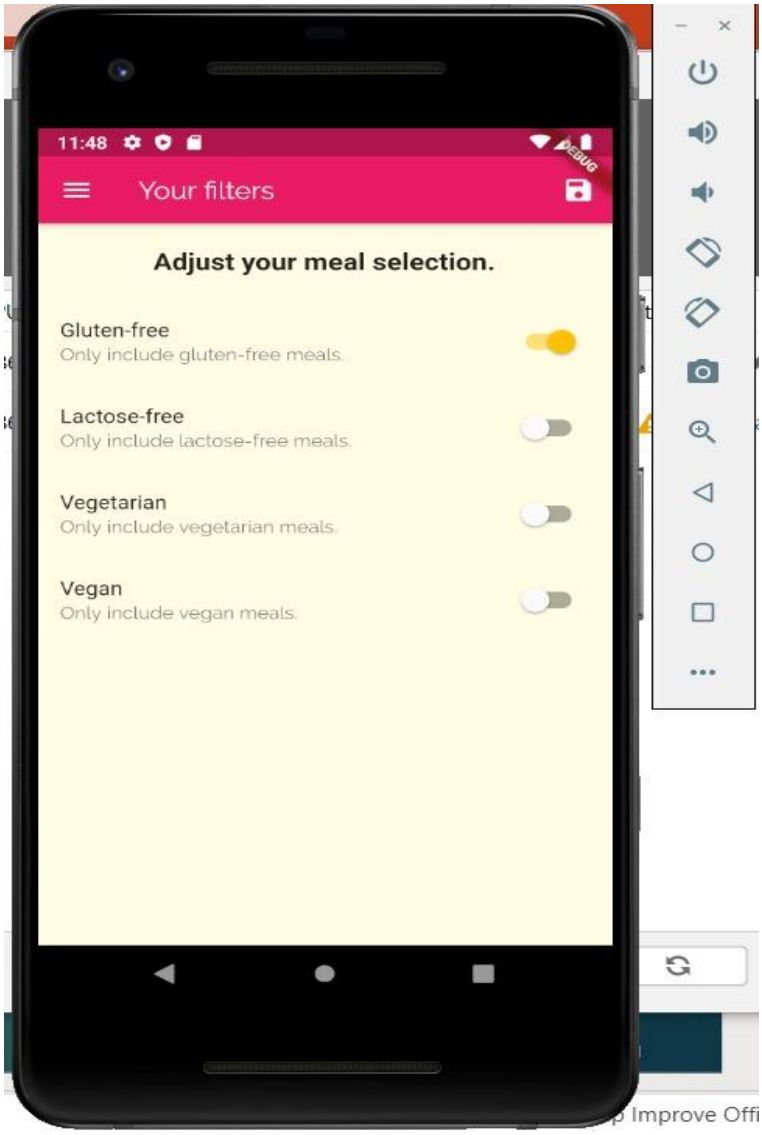
- recipes
- steps





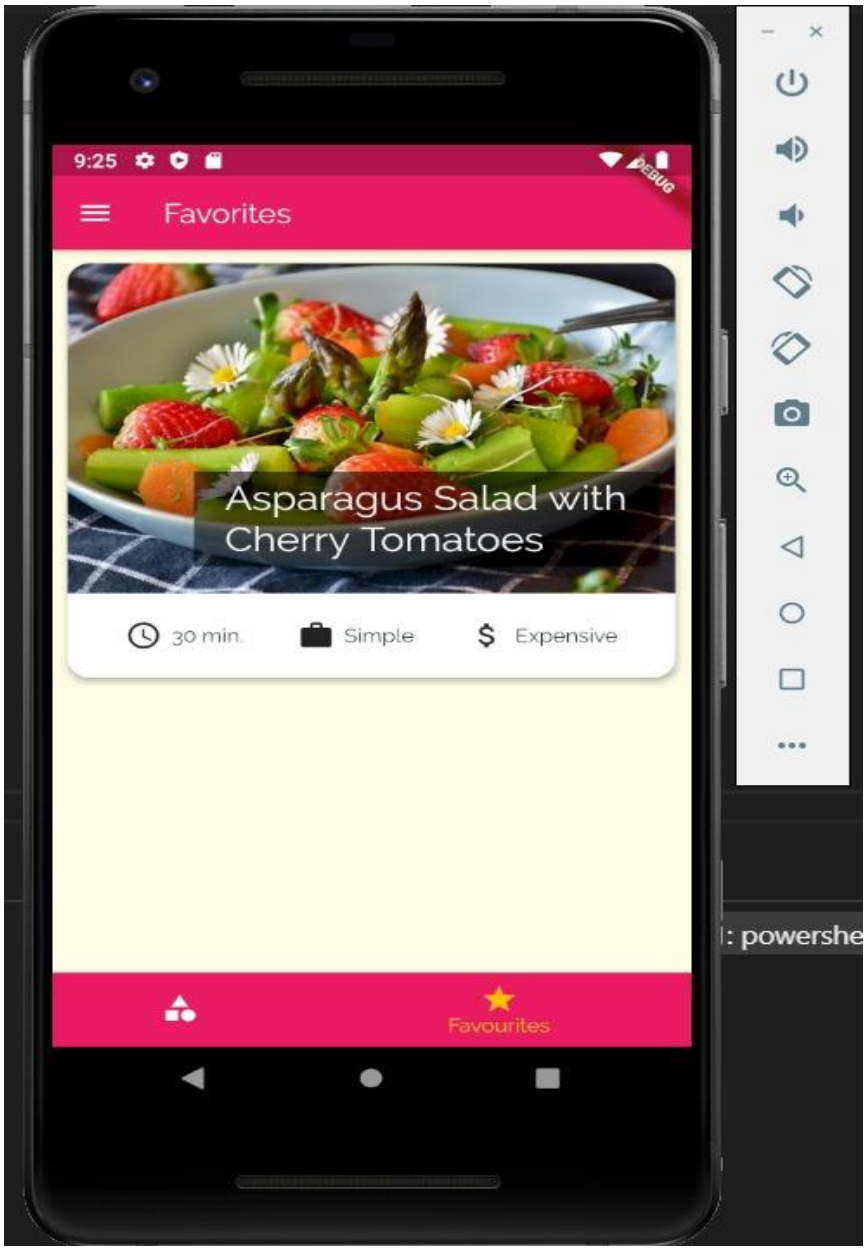
3. **Filters**

4 filter preferences are available



4. **Favorites**

- can easily add your favorites to the favorites list.



Working

- Users can choose the category according to their preferences from the 10 categories provided.
- Users can also apply filters to filter out those recipes which they do not want. It will make searching easier.
- Then users can click on the recipe which they want to know and then the list of ingredients and the recipe will be on their app screen.
- The recipes which user wants to save for future can be marked as favorite by clicking on the star symbol and then the recipe will be added in the favorite list.

Future Scope

Further, more features like recipe sharing and user login can be added to this project. The database can be increased and more cuisines can also be added. With the help of API, video tutorials can also be provided with the recipes. We can make this more feasible by creating a website from where this app can be easily downloaded. We can also add it as a web page from where user can directly access the recipes without downloading the app.

Conclusion

With increase in eating habits of people and app like “food recipe” will be quite helpful. This application is extremely handy and useful for cooking variety of recipe with minimum search effort from internet. It will help people to save their time and energy in finding recipes for daily routine as well as for special occasions. And since this is a mobile application, users have the luxury to check for recipes wherever they are and save them for later. The application can be used by a broad range of users which may include parents trying to cook new recipe for kids, people who are fond of desserts, restaurants owner trying to add new item to their menu and for regular cooking. It will help to make the lives of people simpler.

References

- https://dart.dev/tutorials
- https://flutter.dev/docs/reference/tutorials
- https://www.udemy.com/course/learn-flutter-dart-to-build-ios-android-apps/