

The Robotics Forums

Project Name: Covid Tracker App

Group Members:

| Name | PRN | Email |
|----------------|----------|--------------------------|
| Atharva Deore | 12010633 | atharva.deore20@vit.edu |
| Atharva Jaid | 12010621 | atharva.jaid20@vit.edu |
| Omkar Mudkanna | 12010466 | omkar.mudkanna20@vit.edu |

Project GitHub link:

https://github.com/RoboSpark-2021/robospark-2021-FT-Covid_App

Project Workflow:

- 1) Understanding minimum objectives to cover in the application
- 2) Creating Basic Flutter application
- 3) Deciding the Theme for the application
- 4) Deciding the the Framework of Home and other pages
- 5) Deciding the Navigation between pages
- 6) Developing Back end of splash screen
- 7) Developing backend of the Homepage
- 8) Developing and Adding service widgets to Homepage for api calling
- 9) Adding Dropdown for choosing country, state, city
- 10) Navigating to Detail page using FlatButton widgets
- 11) Adding required conditions for Navigation
- 12) Developing Backend Framework of the Detail page(next page)
- 13) Passing Data between pages
- 14) Designing Splash screen
- 15) Designing Home page by adding customized widgets
- 16) Designing Detail page by adding Cards and Pie Charts
- 17) Testing application phase 1
- 18) Solving Bugs after Test 1 completes
- 19) Test 2
- 20) Solving bugs found from Test 2
- 21) Creating APK

Problems Faced:

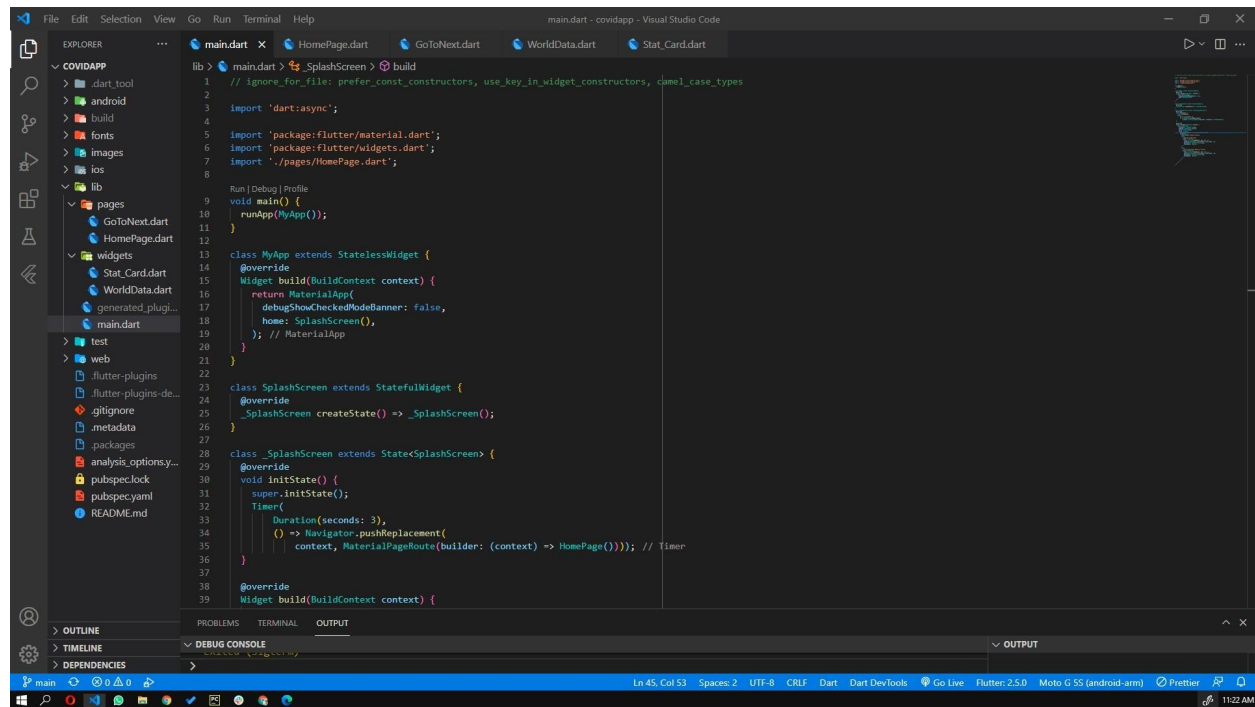
- 1) Designing the Application suitable for most mobile interfaces. (Suitable for Average mobile interface)
- 2) Dropdown for selecting countries.(Solved)
- 3) Navigation between pages with data flow. (Solved)
- 4) Adding Pie Chart (Solved)

Alternative Solutions found for problems mentioned above:

- 1) Using MediaQuery For font size, height,width
- 2) Using country_state_city picker package for Dropdown
- 3) Use of FlatButton for Navigation with Data flow
- 4) Use of SfCircularChart Package to add PieChart

Code Snippet:

main.dart



```
lib > main.dart > SplashScreen > build
1 // ignore_for_file: prefer_const_constructors, use_key_in_widget_constructors, camel_case_types
2
3 import 'dart:async';
4
5 import 'package:flutter/material.dart';
6 import 'package:flutter/widgets.dart';
7 import './pages/HomePage.dart';
8
9 Run | Debug | Profile
10 void main() {
11   runApp(MyApp());
12 }
13
14 class MyApp extends StatelessWidget {
15   @override
16   Widget build(BuildContext context) {
17     return MaterialApp(
18       debugShowCheckedModeBanner: false,
19       home: SplashScreen(),
20     ); // MaterialApp
21   }
22 }
23
24 class SplashScreen extends StatefulWidget {
25   @override
26   _SplashScreen createState() => _SplashScreen();
27 }
28
29 class _SplashScreen extends State<SplashScreen> {
30   @override
31   void initState() {
32     super.initState();
33     Timer(
34       Duration(seconds: 3),
35       () => Navigator.pushReplacement(
36         context, MaterialPageRoute(builder: (context) => HomePage())); // Timer
37   }
38   @override
39   Widget build(BuildContext context) {
```

HomePage.dart



```
1 // ignore_for_file: use_key_in_widget_constructors, file_names, unused_import, must_be_immutable, prefer_typing_uninitialized_variables, prefer_const_constructors
2
3 import 'dart:ffi';
4
5 import 'package:flutter/material.dart';
6 import 'package:flutter/widgets.dart';
7 import 'package:http/http.dart' as http;
8 import 'dart:convert';
9 import 'Stat_Card.dart';
10
11 class Stat {
12   final cases;
13   final deaths;
14   final recovered;
15   final todayactive;
16   final todaydeaths;
17   final todaycases;
18   final critical;
19   final tests;
20 }
21
22 Stat(
23   {this.cases,
24    this.deaths,
25    this.recovered,
26    this.todayactive,
27    this.todaydeaths,
28    this.todaycases,
29    this.critical,
30    this.tests});
31
32 class WorldData extends StatefulWidget {
33   @override
34   _WorldData createState() => _WorldData();
35 }
36
37 class _WorldData extends State<WorldData> {
38   Stat stat = Stat(
39     cases: 0,
40     deaths: 0,
41     recovered: 0,
```

Stat.dart (Card For displaying Stats)

```
1 // ignore_for_file: use_key_in_widget_constructors, file_names, unused_import, must_be_immutable, prefer_typing_uninitialized_variables, camel_case_types
2
3 import 'dart:ffi';
4 import 'dart:ui';
5
6 import 'package:flutter/cupertino.dart';
7 import 'package:flutter/material.dart';
8 import 'package:flutter/widgets.dart';
9 import 'package:http/http.dart' as http;
10 import 'dart:convert';
11
12 class Stat_Card extends StatelessWidget {
13   final String datatype, data;
14   final Color _mycolor;
15   const Stat_Card(this.datatype, this.data, this._mycolor);
16
17   @override
18   Widget build(BuildContext context) {
19     return Card(
20       shape: RoundedRectangleBorder(
21         borderRadius: BorderRadius.circular(10),
22       ), // RoundedRectangleBorder
23       color: Colors.white,
24       elevation: 3,
25       child: Container(
26         decoration: const BoxDecoration(
27           borderRadius: BorderRadius.all(Radius.circular(10))), // BoxDecoration
28         width: MediaQuery.of(context).size.width / 2.4,
29         padding: const EdgeInsets.all(10),
30         child: Column(
31           mainAxisAlignment: MainAxisAlignment.spaceEvenly,
32           children: [
33             Text(
34               datatype,
35               style: TextStyle(
36                 fontSize: MediaQuery.of(context).size.width / 25,
37                 fontWeight: FontWeight.normal,
38                 color: const Color.fromRGB(39, 105, 171, 1),
39                 fontFamily: 'Nunito',
40               ), // TextStyle
```

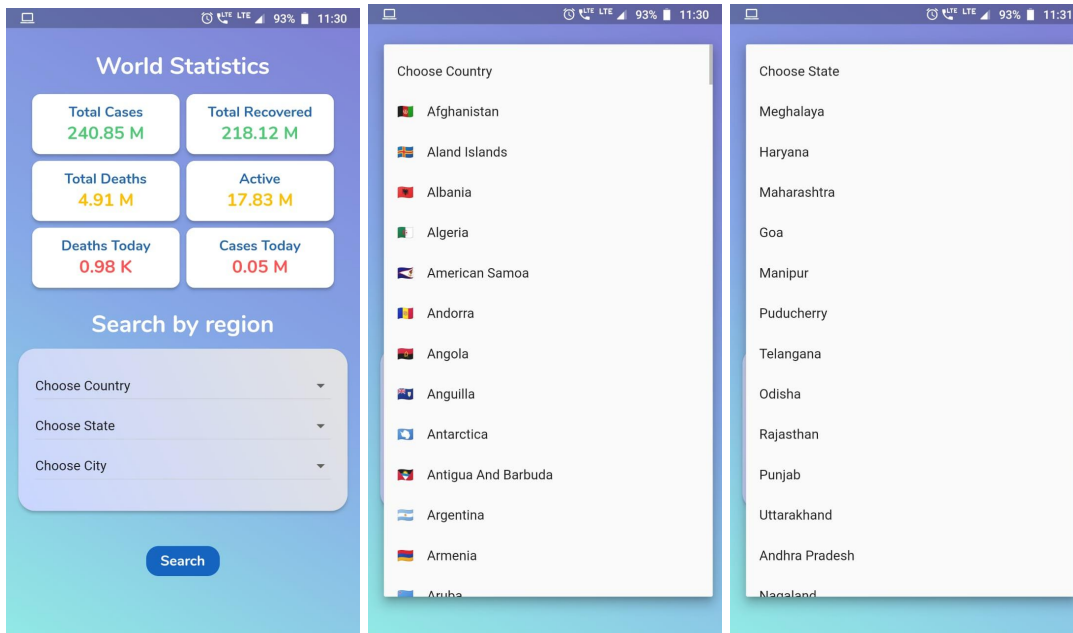
Output:
Splash Screen:

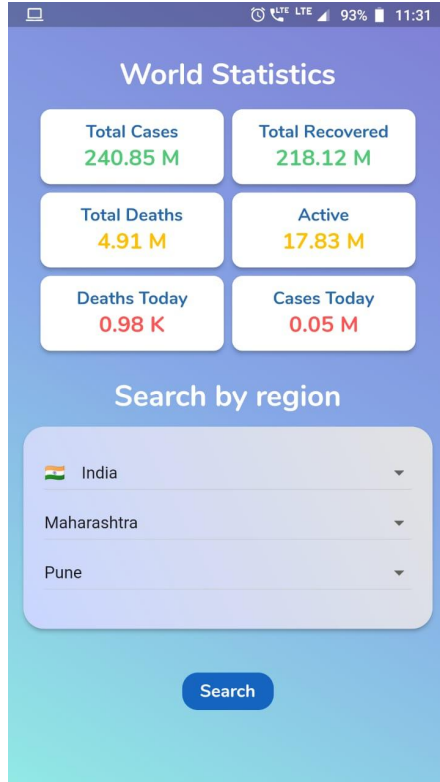
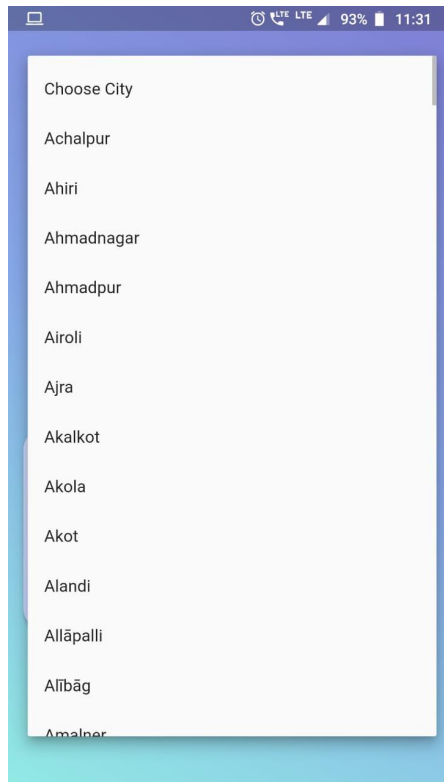


Covid Tracker App

The Robotics Forums

Home Page:





Detail Page:

