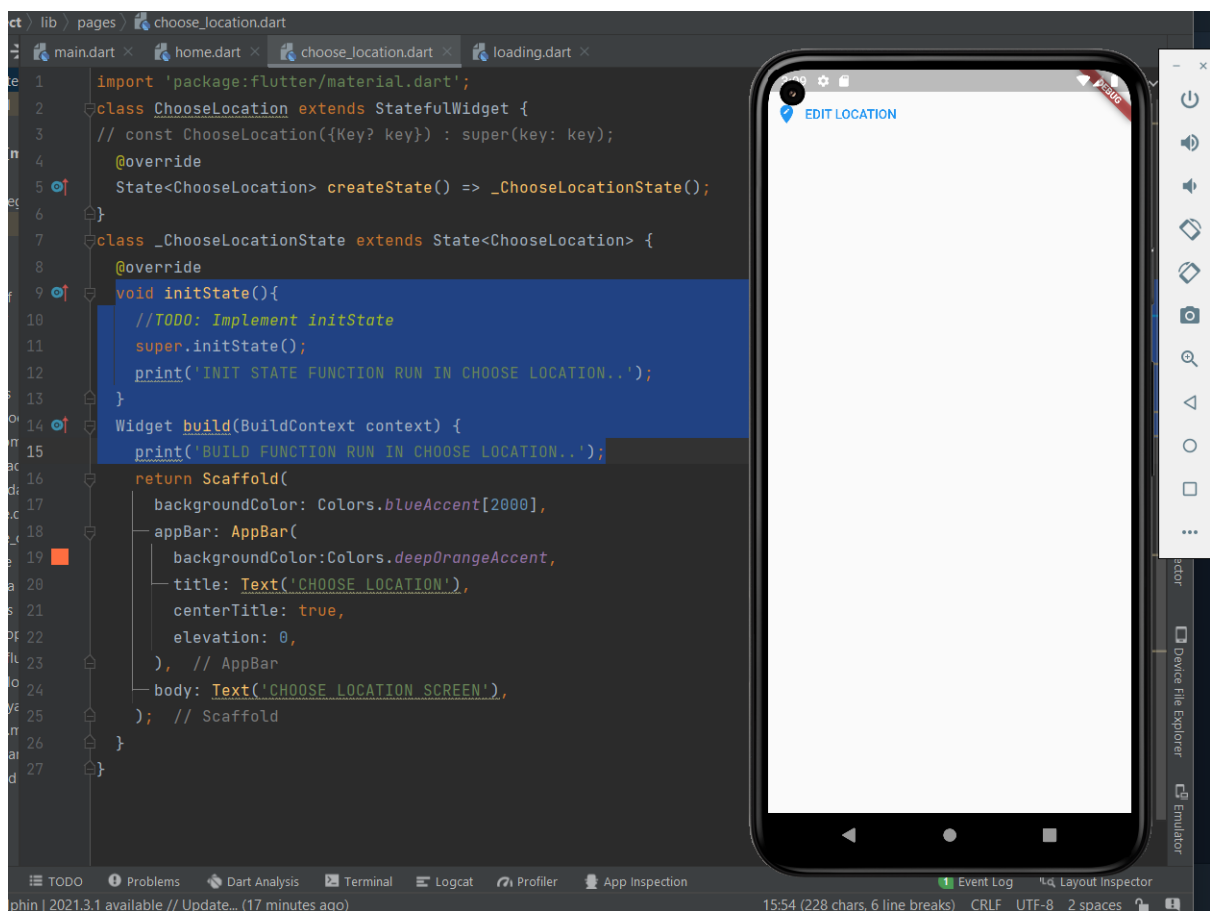
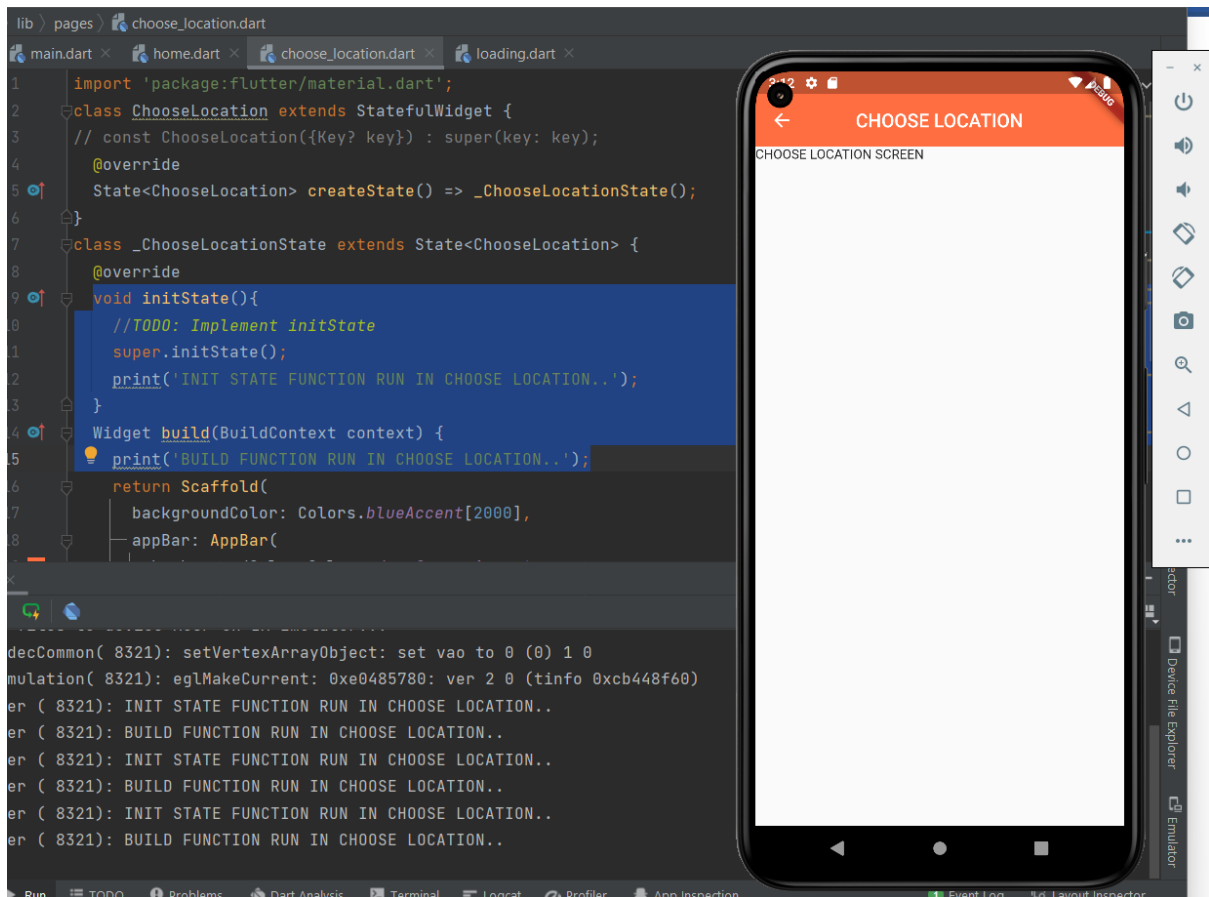


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Roll No : CE025

Sub : SDP_Lab10_1





Now test for

After `setState()` check the changes

Before `initState()` write code...`int counter = 0;` and then make changes in body: property..

```

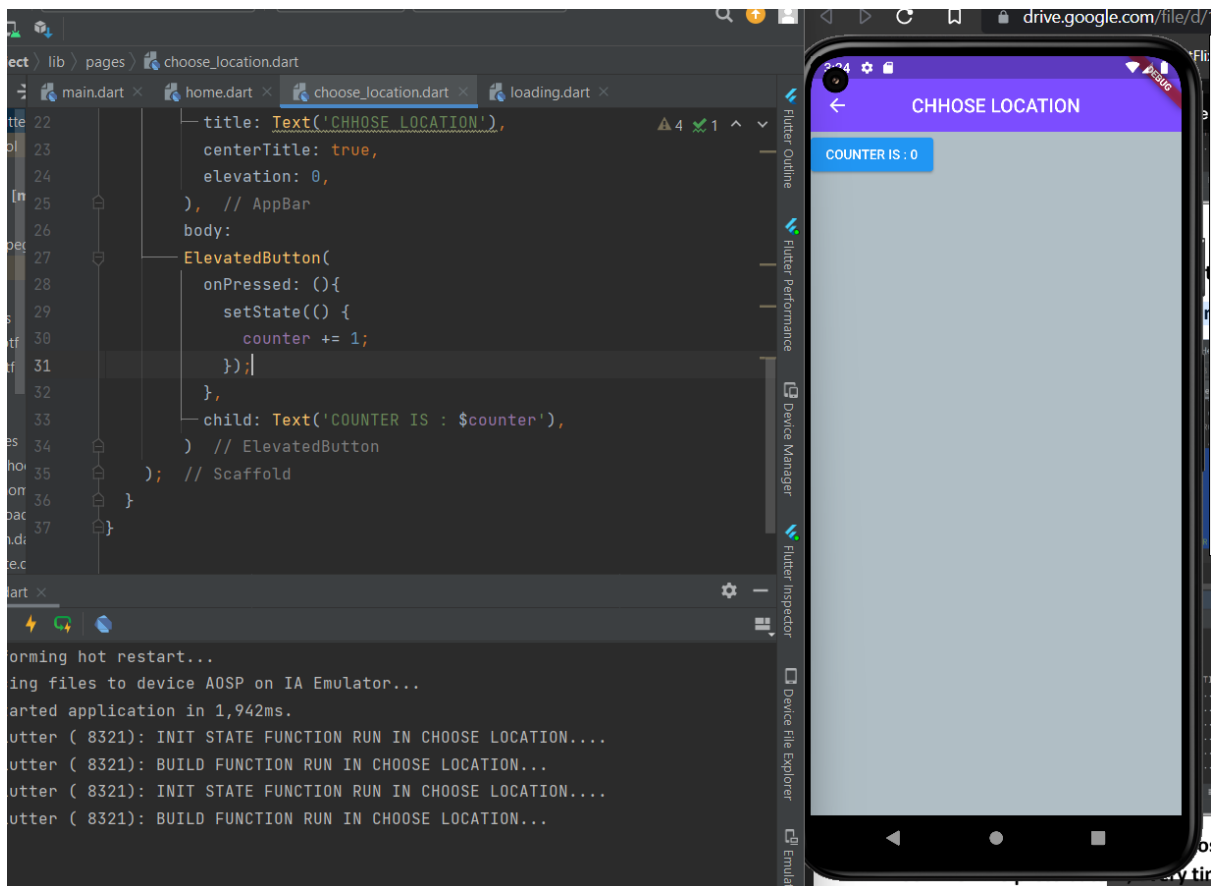
import 'package:flutter/material.dart';
class ChooseLocation extends StatefulWidget {
  // const ChooseLocation({Key? key}) : super(key: key);
  @override
  State<ChooseLocation> createState() => _ChooseLocationState();
}
class _ChooseLocationState extends State<ChooseLocation> {
  int counter = 0;
  @override
  void initState()
  {
    super.initState();
    print('INIT STATE FUNCTION RUN IN CHOOSE LOCATION....');
  }
  @override
  Widget build(BuildContext context) {
    print('BUILD FUNCTION RUN IN CHOOSE LOCATION...');
    return Scaffold(
      backgroundColor: Colors.blueGrey[200],
      appBar: AppBar(

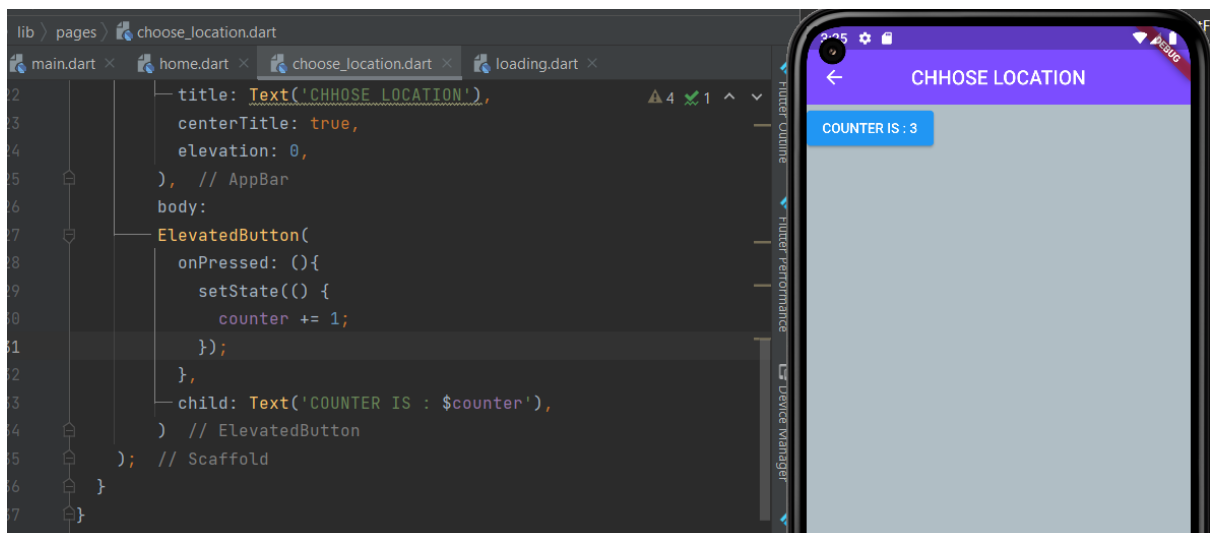
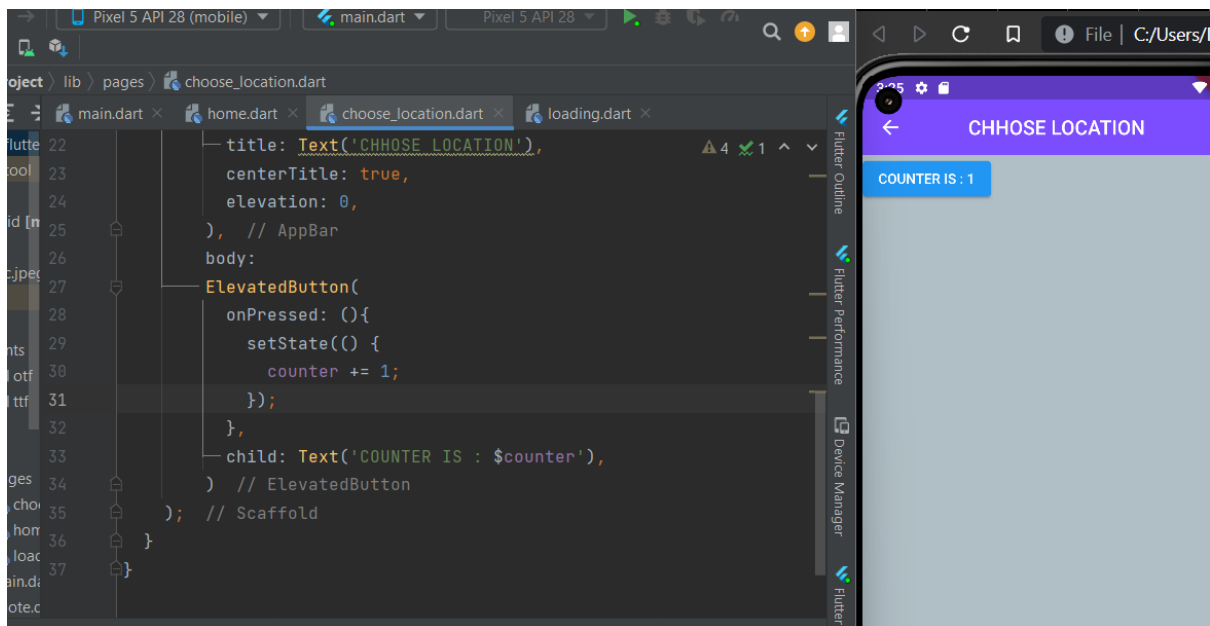
```

```

        backgroundColor: Colors.deepPurpleAccent,
        title: Text('CHHOSE LOCATION'),
        centerTitle: true,
        elevation: 0,
    ),
    body:
    ElevatedButton(
        onPressed: () {
            setState(() {
                counter += 1;
            });
        },
        child: Text('COUNTER IS : $counter'),
    )
);
}
}

```





Code test 2 – Async in flutter

```

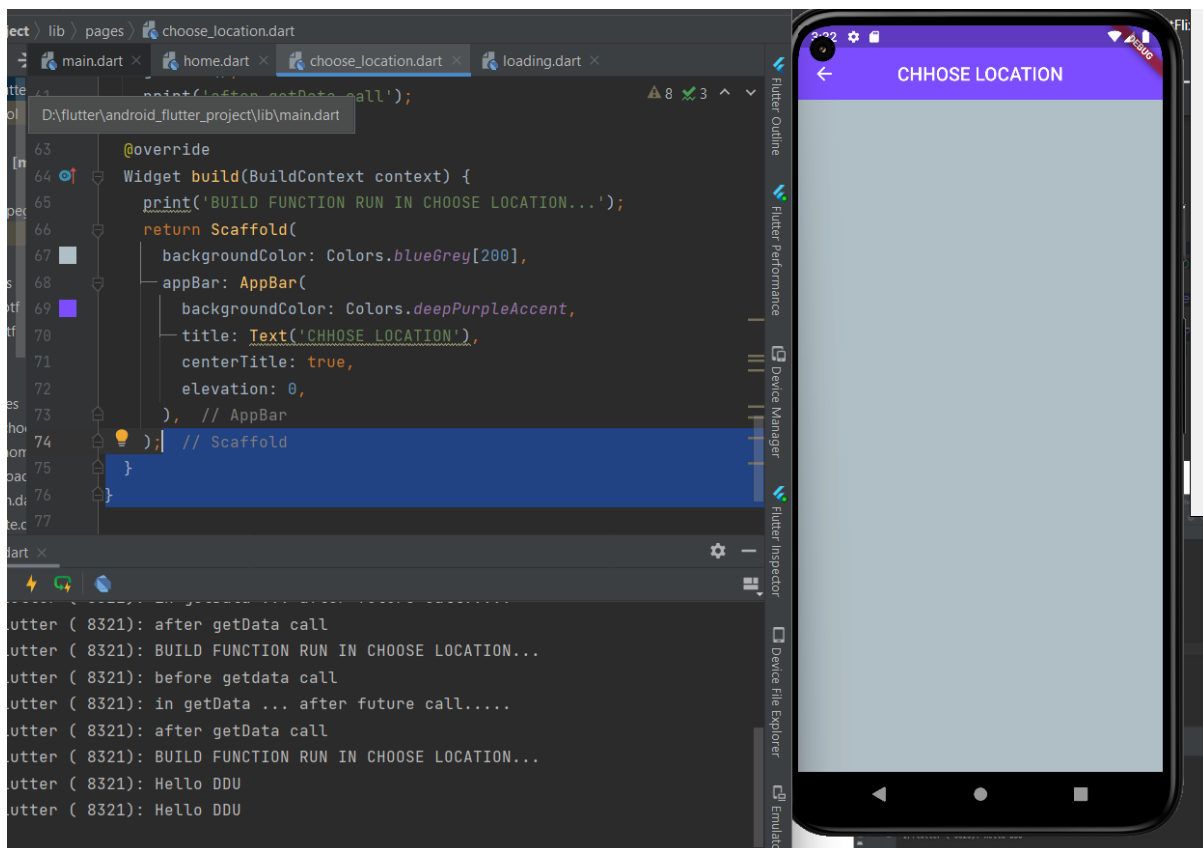
// TEST 2
import 'package:flutter/material.dart';
class ChooseLocation extends StatefulWidget {
  // const ChooseLocation({Key? key}) : super(key: key);
  @override
  State<ChooseLocation> createState() => _ChooseLocationState();
}
class _ChooseLocationState extends State<ChooseLocation> {
  void getData() {
    Future.delayed(Duration(seconds: 4), () {
      print('Hello DDU');
    });
    print('in getData ... after future call.....');
  }
  int counter = 0;
  @override
  void initState()
  
```

```

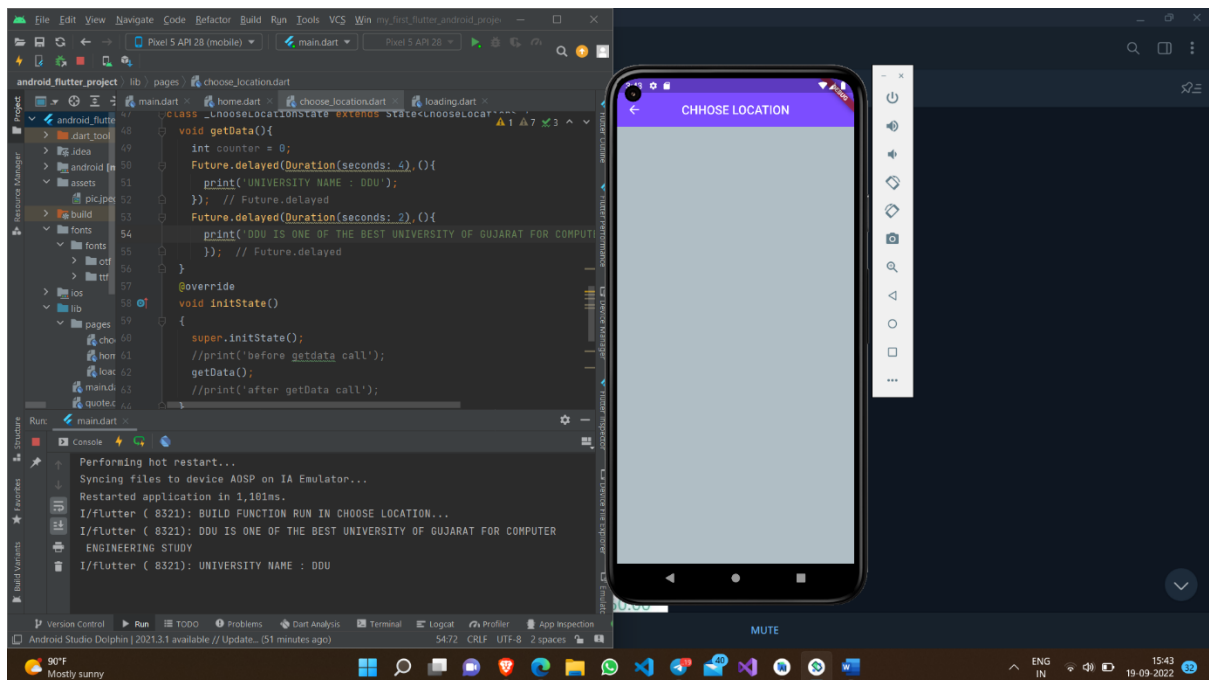
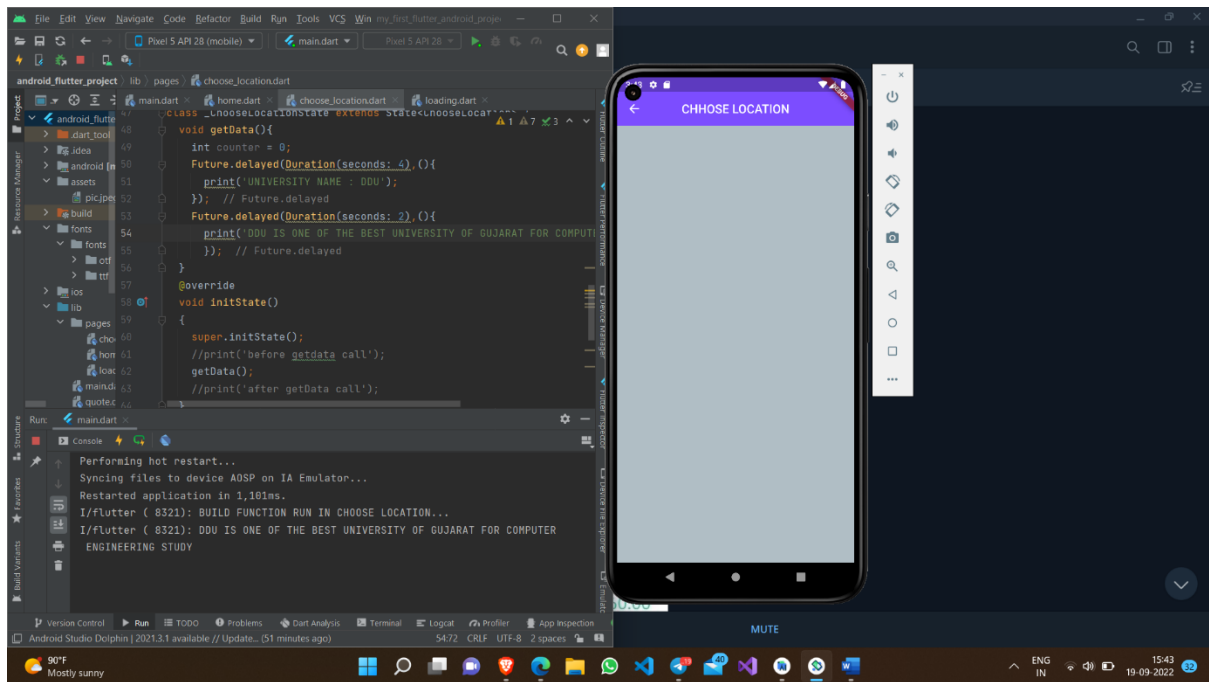
{
  super.initState();
  print('before getdata call');
  getData();
  print('after getData call');
}

@override
Widget build(BuildContext context) {
  print('BUILD FUNCTION RUN IN CHOOSE LOCATION...');
  return Scaffold(
    backgroundColor: Colors.blueGrey[200],
    appBar: AppBar(
      backgroundColor: Colors.deepPurpleAccent,
      title: Text('CHHOSE LOCATION'),
      centerTitle: true,
      elevation: 0,
    ),
  );
}
}

```



- Above code teach us that code not blocked due to async call... But some times we need to wait for response of request...
- Some time new request depends on the data of first request... So in such situation second request must have to wait until the first one not completed...



Solution: use Async, Await, Future, Delayed:

```

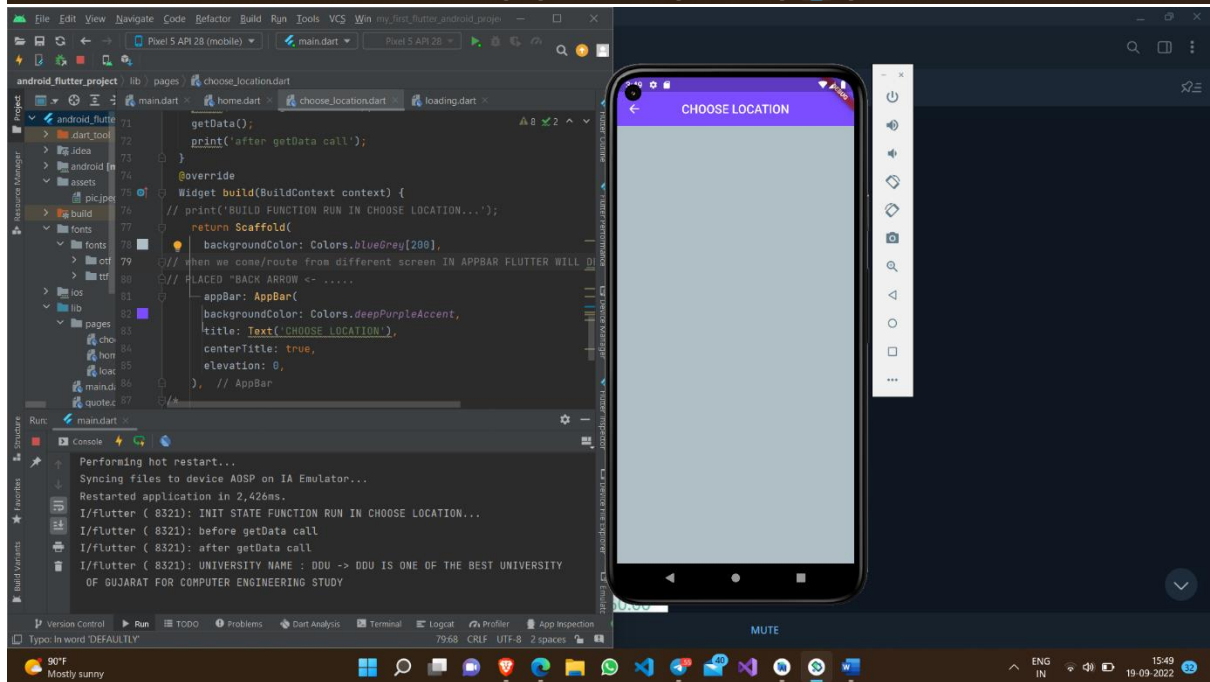
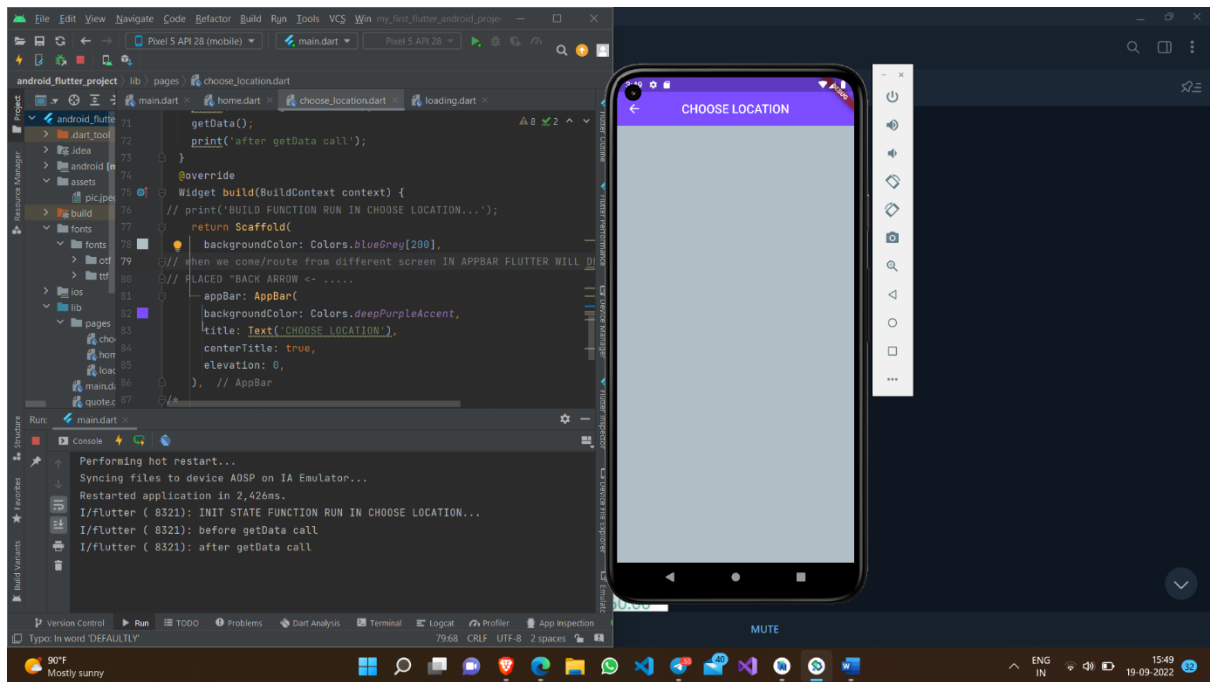
import 'package:flutter/material.dart';
class ChooseLocation extends StatefulWidget {
  // const ChooseLocation({Key? key}) : super(key: key);
  @override
  State<ChooseLocation> createState() => _ChooseLocationState();
}
class _ChooseLocationState extends State<ChooseLocation> {
  int counter = 0;
  void getData() async {
    // below code is similar like to
    // simulate network request for a username
    // its just learning how flutter/dart response to Async

```

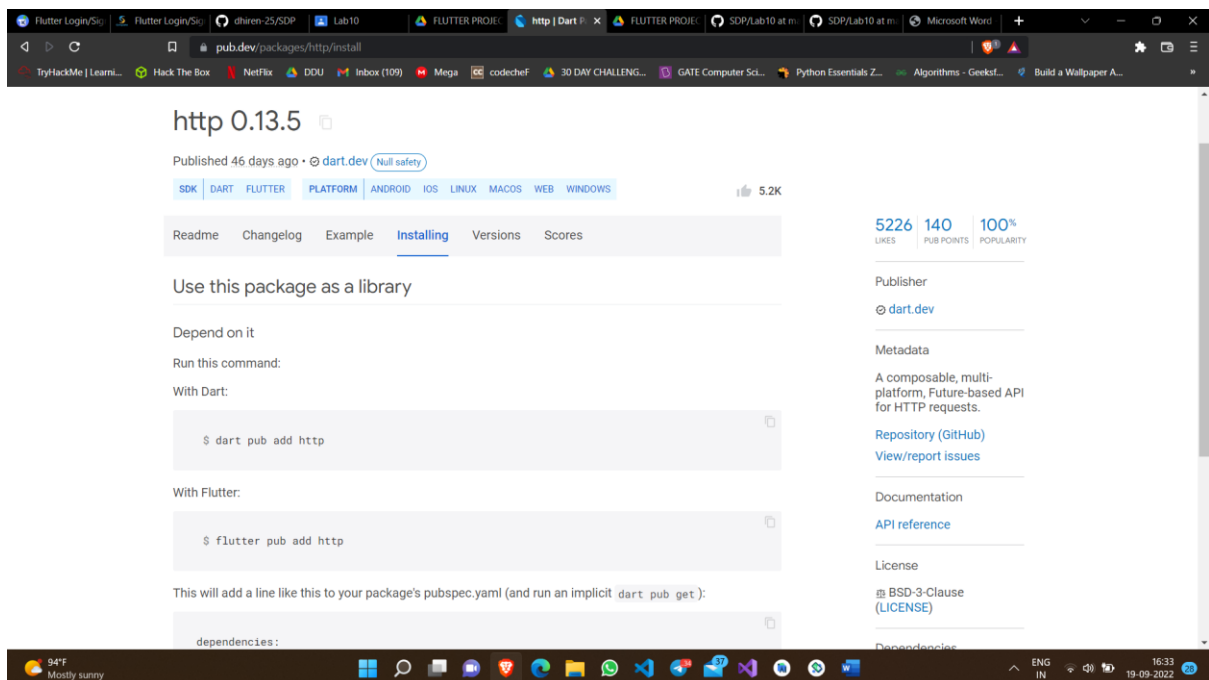
```

        String username = await Future.delayed(Duration(seconds: 4), () {
            return 'UNIVERSITY NAME : DDU';
        });
// print('in getData ...after future call....');
// the following code is depends on 1st one ..but what happened at here?
// suppose it is network simulation request to fetch out the bio-data of..
// user name that is received by 1st request.....
        String bio = await Future.delayed(Duration(seconds: 2), () {
            return 'DDU IS ONE OF THE BEST UNIVERSITY OF GUJARAT FOR COMPUTER
ENGINEERING STUDY';
        });
        print('$username -> $bio');
    }
    @override
    void initState() {
// TODO: implement initState
        super.initState();
        print('INIT STATE FUNCTION RUN IN CHOOSE LOCATION...');
        print('before getData call');
        getData();
        print('after getData call');
    }
    @override
    Widget build(BuildContext context) {
// print('BUILD FUNCTION RUN IN CHOOSE LOCATION...');
        return Scaffold(
            backgroundColor: Colors.blueGrey[200],
// when we come/route from different screen IN APPBAR FLUTTER WILL
DEFAULTLY
// PLACED "BACK ARROW <- .....
            appBar: AppBar(
                backgroundColor: Colors.deepPurpleAccent,
                title: Text('CHOOSE LOCATION'),
                centerTitle: true,
                elevation: 0,
            ),
/*
body: ElevatedButton(
onPressed: () {
setState(() {
counter += 1;
});
},
child: Text('COUNTER IS : $counter'),
),
*/
        );
    }
}

```



Code Test 3: packages and API calling basic



The screenshot shows the pub.dev website for the `http` package version 0.13.5. The page includes the package name, version, and a 'Null safety' badge. It lists the publisher as `dart.dev` and shows 5.2K likes. The 'Installing' tab is selected, displaying instructions on how to use the package as a library. It provides commands for adding the package with Dart and Flutter, and shows the resulting entry in the `pubspec.yaml` file's dependencies section.

http 0.13.5

Published 46 days ago • dart.dev (Null safety)

SDK DART FLUTTER PLATFORM ANDROID IOS LINUX MACOS WEB WINDOWS

Readme Changelog Example **Installing** Versions Scores

Use this package as a library

Depend on it

Run this command:

With Dart:

```
$ dart pub add http
```

With Flutter:

```
$ flutter pub add http
```

This will add a line like this to your package's pubspec.yaml (and run an implicit `dart pub get`):

```
dependencies:
```

5226 LIKES 140 PUB POINTS 100% POPULARITY

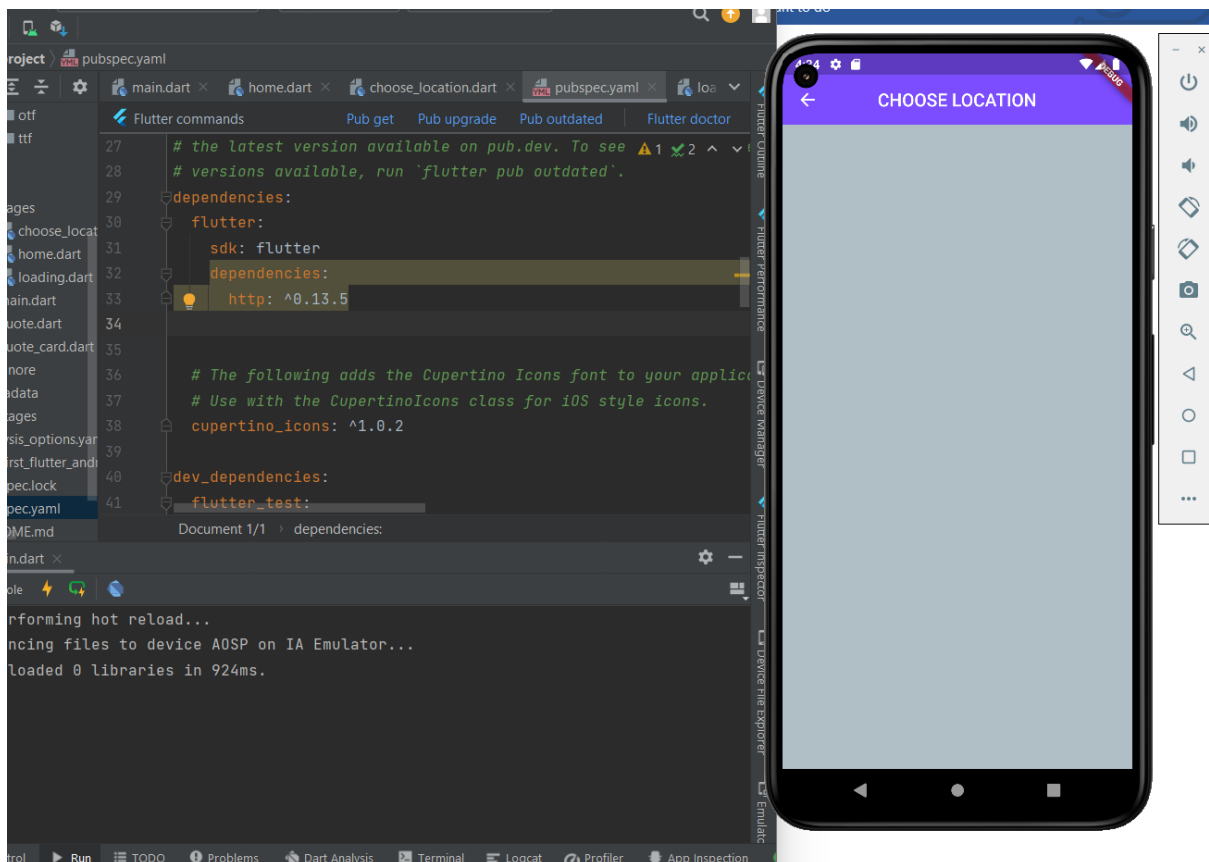
Publisher: dart.dev

Metadata: A composable, multi-platform, Future-based API for HTTP requests.

Repository (GitHub) View/report issues

Documentation API reference

License: BSD-3-Clause (LICENSE)



The screenshot shows an IDE with the `pubspec.yaml` file open. The file contains the following content:

```
# the latest version available on pub.dev. To see
# versions available, run 'flutter pub outdated'.
dependencies:
  flutter:
    sdk: flutter
  http: ^0.13.5

# The following adds the Cupertino Icons font to your application.
# Use with the CupertinoIcons class for iOS style icons.
cupertino_icons: ^1.0.2

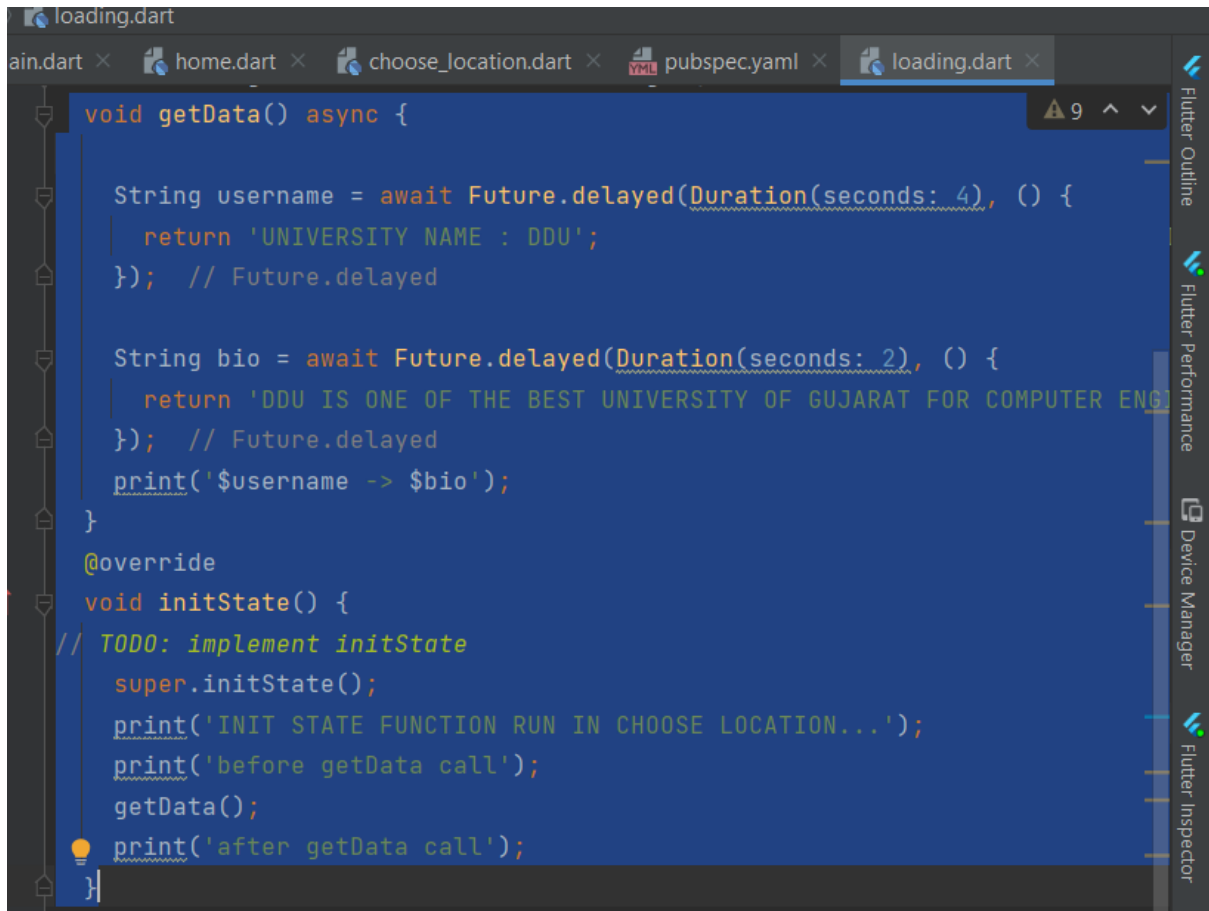
dev_dependencies:
  flutter_test:
```

The IDE also shows a terminal window with the following output:

```
performing hot reload...
syncing files to device AOSP on IA Emulator...
loaded 0 libraries in 924ms.
```

On the right, a mobile emulator is displayed with the title "CHOOSE LOCATION".

Now cut the code of `getData()` and `initState()` from 'choose_location.dart' and paste in "loading.dart's" 'state' class and modify as shown in below code...

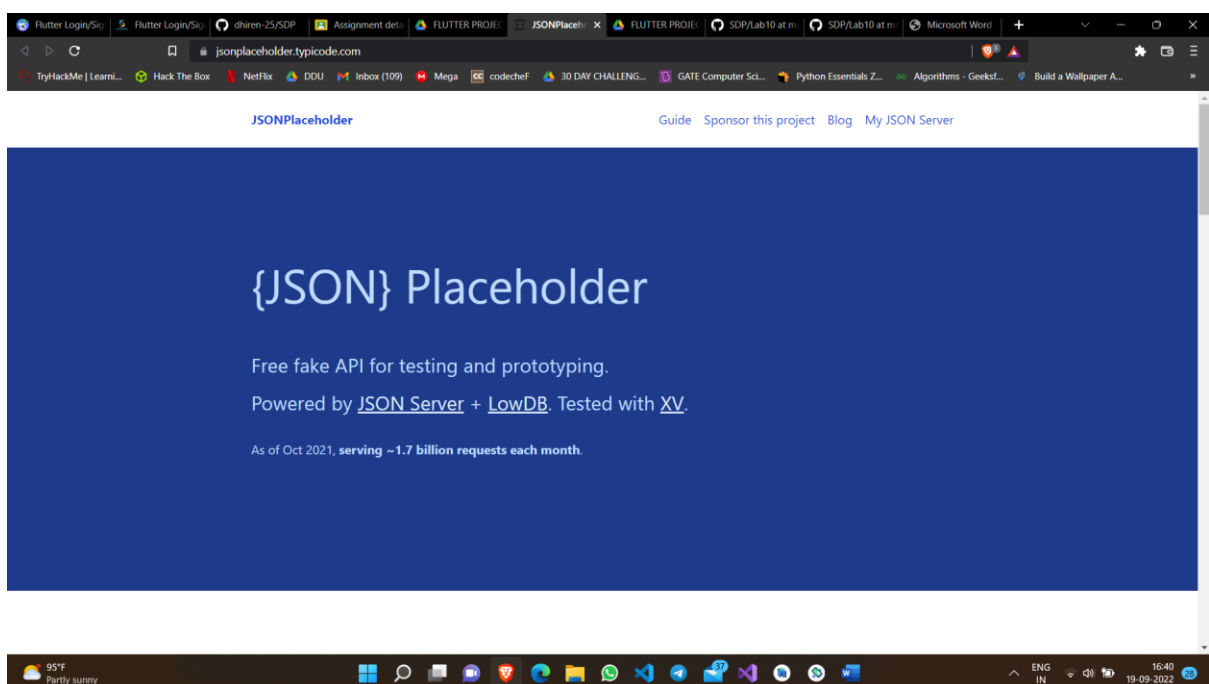


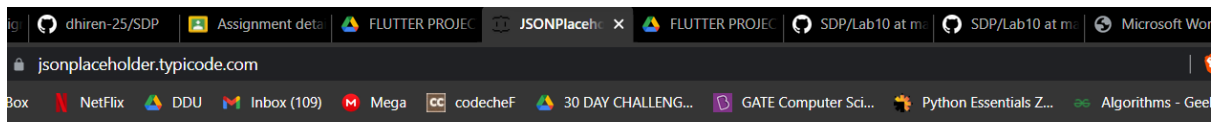
```
loading.dart
ain.dart x home.dart x choose_location.dart x pubspec.yaml x loading.dart x
Flutter Outline
Flutter Performance
Device Manager
Flutter Inspector

void getData() async {
    String username = await Future.delayed(Duration(seconds: 4), () {
        return 'UNIVERSITY NAME : DDU';
    }); // Future.delayed

    String bio = await Future.delayed(Duration(seconds: 2), () {
        return 'DDU IS ONE OF THE BEST UNIVERSITY OF GUJARAT FOR COMPUTER ENG';
    }); // Future.delayed
    print('$username -> $bio');
}

@override
void initState() {
    // TODO: implement initState
    super.initState();
    print('INIT STATE FUNCTION RUN IN CHOOSE LOCATION...');
    print('before getData call');
    getData();
    print('after getData call');
}
```





Try it

Run this code here, in a console or from any site:

```
fetch('https://jsonplaceholder.typicode.com/todos/1')  
  .then(response => response.json())  
  .then(json => console.log(json))
```

Run script

```
{}
```

Main.dart :

```
import 'package:flutter/material.dart';  
import  
'package:my_first_flutter_android_project/pages/choose_location.dart';  
import 'package:my_first_flutter_android_project/pages/home.dart';  
import 'package:my_first_flutter_android_project/pages/loading.dart';  
  
void main() => runApp(MaterialApp(  
  // initialRoute: '/home',  
  initialRoute: '/',  
  routes: {  
    '/': (context) => Loading(),  
    '/home': (context) => Home(),  
    '/location': (context) => ChooseLocation(),  
  }  
));
```

home.dart :

```
import 'package:flutter/material.dart';  
class Home extends StatefulWidget {  
  @override  
  State<Home> createState() => _HomeState();  
}  
class _HomeState extends State<Home> {  
  @override
```

```

Widget build(BuildContext context) {
  return Scaffold(
    //test1
    // body: SafeArea(child: Text('HOME SCREEN'),)
    //test2
    body: SafeArea(
      child: Column(
        children: [
          TextButton.icon(
            onPressed: (){
              Navigator.pushNamed(context, '/location');
            },
            icon: Icon(Icons.edit_location),
            label: Text('EDIT LOCATION'),
          )
        ],
      ),
    ),
  );
}

```

choose_location.dart :

```

import 'package:flutter/material.dart';
class ChooseLocation extends StatefulWidget {
  // const ChooseLocation({Key? key}) : super(key: key);
  @override
  State<ChooseLocation> createState() => _ChooseLocationState();
}
class _ChooseLocationState extends State<ChooseLocation> {
  int counter = 0;

  @override
  Widget build(BuildContext context) {
    // print('BUILD FUNCTION RUN IN CHOOSE LOCATION...');
    return Scaffold(
      backgroundColor: Colors.blueGrey[200],
      // when we come/route from different screen IN APPBAR FLUTTER WILL
      // DEFAULTLY
      // PLACED "BACK ARROW <- .....
      appBar: AppBar(
        backgroundColor: Colors.deepPurpleAccent,
        title: Text('CHOOSE LOCATION'),
        centerTitle: true,
        elevation: 0,
      ),
      /*
body: ElevatedButton(
  onPressed: () {
    setState(() {
      counter += 1;
    });
  },
  child: Text('COUNTER IS : $counter'),
),
*/
    );
  }
}

```

```
}  
}
```

loading.dart :

```
import 'package:flutter/material.dart';  
import 'package:http/http.dart';  
import 'dart:convert';  
class Loading extends StatefulWidget {  
  
  // const Loading({Key? key}) : super(key: key);  
  @override  
  State<Loading> createState() => _LoadingState();  
}  
class _LoadingState extends State<Loading> {  
  void getData() async {  
    final response = await  
    get(Uri.parse('https://jsonplaceholder.typicode.com/albums/1'));  
    print(response.body);  
  
    Map data = jsonDecode(response.body);  
    print(data);  
    print(data['title']);  
  
    // String username = await Future.delayed(Duration(seconds: 4), () {  
    //   return 'UNIVERSITY NAME : DDU';  
    // });  
    //  
    // String bio = await Future.delayed(Duration(seconds: 2), () {  
    //   return 'DDU IS ONE OF THE BEST UNIVERSITY OF GUJARAT FOR COMPUTER  
ENGINEERING STUDY';  
    // });  
    // print('$username -> $bio');  
  }  
  @override  
  void initState() {  
    super.initState();  
    getData();  
    //   print('INIT STATE FUNCTION RUN IN CHOOSE LOCATION...');  
    //   print('before getData call');  
    //   getData();  
    //   print('after getData call');  
  }  
  @override  
  Widget build(BuildContext context) {  
    return Scaffold(  
      body: Text('LOADING SCREEN'),  
    );  
  }  
}
```

github link : <https://github.com/dhiren-25/SDP.git>

