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Batch: A4 Lab: 11
GitHub link: https://github.com/MurtazaMister/CE071_SDP/blob/master/Lab11

Code Test - 1

```dart
//Lab :- 11

import 'package:flutter/material.dart';
import 'package:flutter_lab_11/pages/home.dart';
import 'package:flutter_lab_11/pages/choose_location.dart';
import 'package:flutter_lab_11/pages/loading.dart';

void main() => runApp(MaterialApp(
// home: Home(),
// instead of making home: property to make any page to initialize at
beginning...
// we can use following code ....
// initialRoute: '/home',
        initialRoute: '/',
        routes: {
          '/': (context) => Loading(),
          '/home': (context) => Home(),
          '/location': (context) => ChooseLocation(),
        }));
```

main.dart

```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;

  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 calling of getData');
    getData();
    print('After calling of getData');
  }

  @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'),
),
*/
    );
  }
}
```

pages/choose_location.dart

```
import 'package:flutter/material.dart';

class Home extends StatefulWidget {
  @override
  State<Home> createState() => _HomeState();
}

class _HomeState extends State<Home> {
  Map<dynamic, dynamic> data = {};

  @override
  Widget build(BuildContext context) {
```

```
    data = ModalRoute.of(context)?.settings.arguments as Map;
    print(data);
    return Scaffold(
      body: SafeArea(
          child: Padding(
        padding: const EdgeInsets.fromLTRB(0.0, 120.0, 0.0, 0.0),
        child: Column(
          children: [
            TextButton.icon(
              onPressed: () {
                Navigator.pushNamed(context, '/location');
              },
              icon: Icon(Icons.edit_location),
              label: Text('EDIT LOCATION'),
            ),
            SizedBox(height: 24.0),
            Row(
              mainAxisAlignment: MainAxisAlignment.center,
              children: [
                Text(
                  data['location'],
                  style: TextStyle(
                    letterSpacing: 2.0,
                    fontSize: 28.0,
                  ),
                )
              ],
            ),
            SizedBox(
              height: 24.0,
            ),
            Text(
              data['time'],
              style: TextStyle(
                fontSize: 70.0,
              ),
            )
          ],
        ),
      )),
    );
  }
}
```

pages/home.dart

```
import 'package:flutter/material.dart';
import 'package:flutter_lab_11/services/world_time.dart';

class Loading extends StatefulWidget {
  @override
  State<Loading> createState() => _LoadingState();
}

class _LoadingState extends State<Loading> {
  String? time = 'LOADING.........';

  void setWorldTime() async {
    WordTime timeinstance =
```

```
        WordTime(location: 'kolkata', flag: 'india.png', url:
'Asia/Kolkata');
    await timeinstance.getTime();
// print(timeinstance.time);
    setState(() {
      time = timeinstance.time;
    });
  }

  @override
  void initState() {
    super.initState();
    setWorldTime();
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
        body: Padding(
      padding: EdgeInsets.all(60.0),
      child: Text(time.toString()),
    ));
  }
}
```

pages/loading.dart

```
import 'package:http/http.dart';
import 'dart:convert';
class WordTime {
  String? location; // REAL LOCATION NAME FOR UI
  String? time; // the time in that location..
  String? flag; // flag images related to location country...do it your
self
  String? url; // end point of static url...which will change every time
when location will change
  WordTime({ this.location,this.flag,this.url });
  Future<void> getTime() async {
// Make Request for time and receive response
    Response response = await
        Here the URL is removed…
    get(Uri.parse(''));
        Here the URL is removed…
 // Asia/Kolkata
    Map timeData = jsonDecode(response.body);
// Get particular property form timeData...
    String dateTime = timeData['datetime'];
    String offset = timeData['utc_offset']; //not dst_offset
    String offsetHours = offset.substring(1,3);
    String offsetMinutes = offset.substring(4,6);
// create DateTime object
    DateTime currenttime = DateTime.parse(dateTime);
    currenttime = currenttime.add(
        Duration(minutes:
        int.parse(offsetMinutes),hours:int.parse(offsetHours)));
//set the time property of class...
    time = currenttime.toString();
  }
}
```

services/world_time.dart

Output-

To handle this TRY-CATCH blocks are needed:-

```
import 'package:http/http.dart';
import 'dart:convert';

class WordTime {
  String? location; // REAL LOCATION NAME FOR UI
  String? time; // the time in that location..
  String? flag; // flag images related to location country...do it your
self
  String?
  url; // end point of static url...which will change every time when
location will change
```

```
  WordTime({this.location, this.flag, this.url});

  Future<void> getTime() async {
    try {
// Make Request for time and receive response
      Response response = await
      //From Here URL was removed

      get(Uri.parse('')); // Asia/Kolkata
      Map timeData = jsonDecode(response.body);
// Get particular property form timeData...
      String dateTime = timeData['datetime'];
      String offset = timeData['utc_offset']; //not dst_offset
      String offsetHours = offset.substring(1, 3);
      String offsetMinutes = offset.substring(4, 6);
// create DateTime object
      DateTime currenttime = DateTime.parse(dateTime);
      currenttime = currenttime.add(Duration(
          minutes: int.parse(offsetMinutes), hours:
int.parse(offsetHours)));
//set the time property of class...
      time = currenttime.toString();
    }
    catch(e){
      print("Exception Caught : $e");
    }
  }
}
```

Changed code of - services/world_time.dart

Syncing files to device sdk gphone64 x86 64...

I/flutter (12266): Exception Caught : Invalid argument(s): No host specified in URI

Error from the RUN console…

Output -


9:43
DEBUG
null

Code Test - 2

```
import 'package:http/http.dart';
import 'dart:convert';

class WordTime {
  String? location; // REAL LOCATION NAME FOR UI
  String? time; // the time in that location..
  String? flag; // flag images related to location country...do it your
self
  String?
  url; // end point of static url...which will change every time when
location will change
  WordTime({this.location, this.flag, this.url});

  Future<void> getTime() async {
    try {
// Make Request for time and receive response
      Response response = await
      //From Here URL was removed

      get(Uri.parse('http://worldtimeapi.org/api/timezone/$url')); //
Asia/Kolkata
      Map timeData = jsonDecode(response.body);
// Get particular property form timeData...
      String dateTime = timeData['datetime'];
      String offset = timeData['utc_offset']; //not dst_offset
      String offsetHours = offset.substring(1, 3);
      String offsetMinutes = offset.substring(4, 6);
// create DateTime object
      DateTime currenttime = DateTime.parse(dateTime);
      currenttime = currenttime.add(Duration(
          minutes: int.parse(offsetMinutes), hours:
int.parse(offsetHours)));
//set the time property of class...
      time = currenttime.toString();
    }
    catch(e){
      print("Exception Caught : $e");
    }
  }
}
```

Updated page of world_time.dart

```
import 'package:flutter/material.dart';
import 'package:flutter_lab_11/services/world_time.dart';

class Loading extends StatefulWidget {
  @override
  State<Loading> createState() => _LoadingState();
}

class _LoadingState extends State<Loading> {
  void setWorldTime() async {
    WordTime timeinstance =
        WordTime(location: 'kolkata', flag: 'india.png', url:
'Asia/Kolkata');
```

```
    await timeinstance.getTime();
    Navigator.pushReplacementNamed(context, '/home', arguments: {
      'location' : timeinstance.location,
      'flag' : timeinstance.flag,
      'time': timeinstance.time,
    });
  }

  @override
  void initState() {
    super.initState();
    setWorldTime();
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
        body: Padding(
      padding: EdgeInsets.all(50.0),
      child: Text("Loading..."),
    ));
  }
}
```

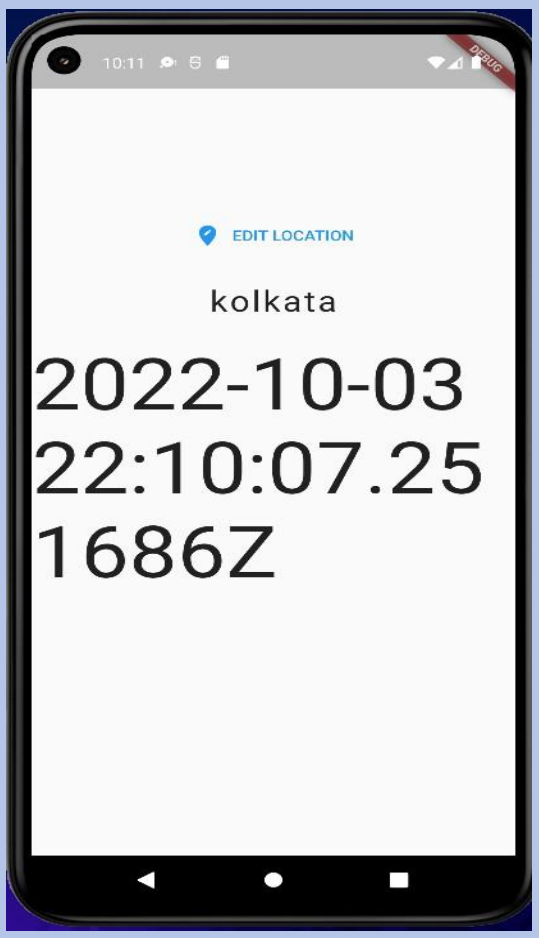
Updated page of loading.dart

```
import 'package:flutter/material.dart';

class Home extends StatefulWidget {
  @override
  State<Home> createState() => _HomeState();
}

class _HomeState extends State<Home> {
  Map<dynamic, dynamic> data = {};

  @override
  Widget build(BuildContext context) {
    data = ModalRoute.of(context)?.settings.arguments as Map;
    print(data);
    return Scaffold(
      body: SafeArea(
          child: Padding(
        padding: const EdgeInsets.fromLTRB(0.0, 120.0, 0.0, 0.0),
        child: Column(
          children: [
            TextButton.icon(
              onPressed: () {
                Navigator.pushNamed(context, '/location');
              },
              icon: Icon(Icons.edit_location),
              label: Text('EDIT LOCATION'),
            ),
            SizedBox(height: 24.0),
            Row(
              mainAxisAlignment: MainAxisAlignment.center,
              children: [
                Text(
                  data['location'],
```

```
                    style: TextStyle(
                      letterSpacing: 2.0,
                      fontSize: 28.0,
                    ),
                  )
                ],
              ),
              SizedBox(
                height: 24.0,
              ),
              Text(
                data['time'],
                style: TextStyle(
                  fontSize: 70.0,
                ),
              )
            ],
          ),
        )),
      );
  }
}
```

Updated page of home.dart

Output-



Code Test-3

```
import 'package:http/http.dart';
import 'dart:convert';
import 'package:intl/intl.dart';

class WordTime {
  String? location; // REAL LOCATION NAME FOR UI
  String? time; // the time in that location..
  String? flag; // flag images related to location country...do it your
self
  String?
      url; // end point of static url...which will change every time when
location will change
  WordTime({this.location, this.flag, this.url});

  Future<void> getTime() async {
    try {
// Make Request for time and receive response
      Response response = await
          //From Here URL was removed

          get(Uri.parse(
              'http://worldtimeapi.org/api/timezone/$url')); //
Asia/Kolkata
      Map timeData = jsonDecode(response.body);
// Get particular property form timeData...
      String dateTime = timeData['datetime'];
      String offset = timeData['utc_offset']; //not dst_offset
      String offsetHours = offset.substring(1, 3);
      String offsetMinutes = offset.substring(4, 6);
// create DateTime object
      DateTime currenttime = DateTime.parse(dateTime);
      currenttime = currenttime.add(Duration(
          minutes: int.parse(offsetMinutes), hours:
int.parse(offsetHours)));
//set the time property of class...
//       time = currenttime.toString();
      time = DateFormat.jm().format(currenttime);
    } catch (e) {
      print("Exception Caught : $e");
    }
  }
}
```

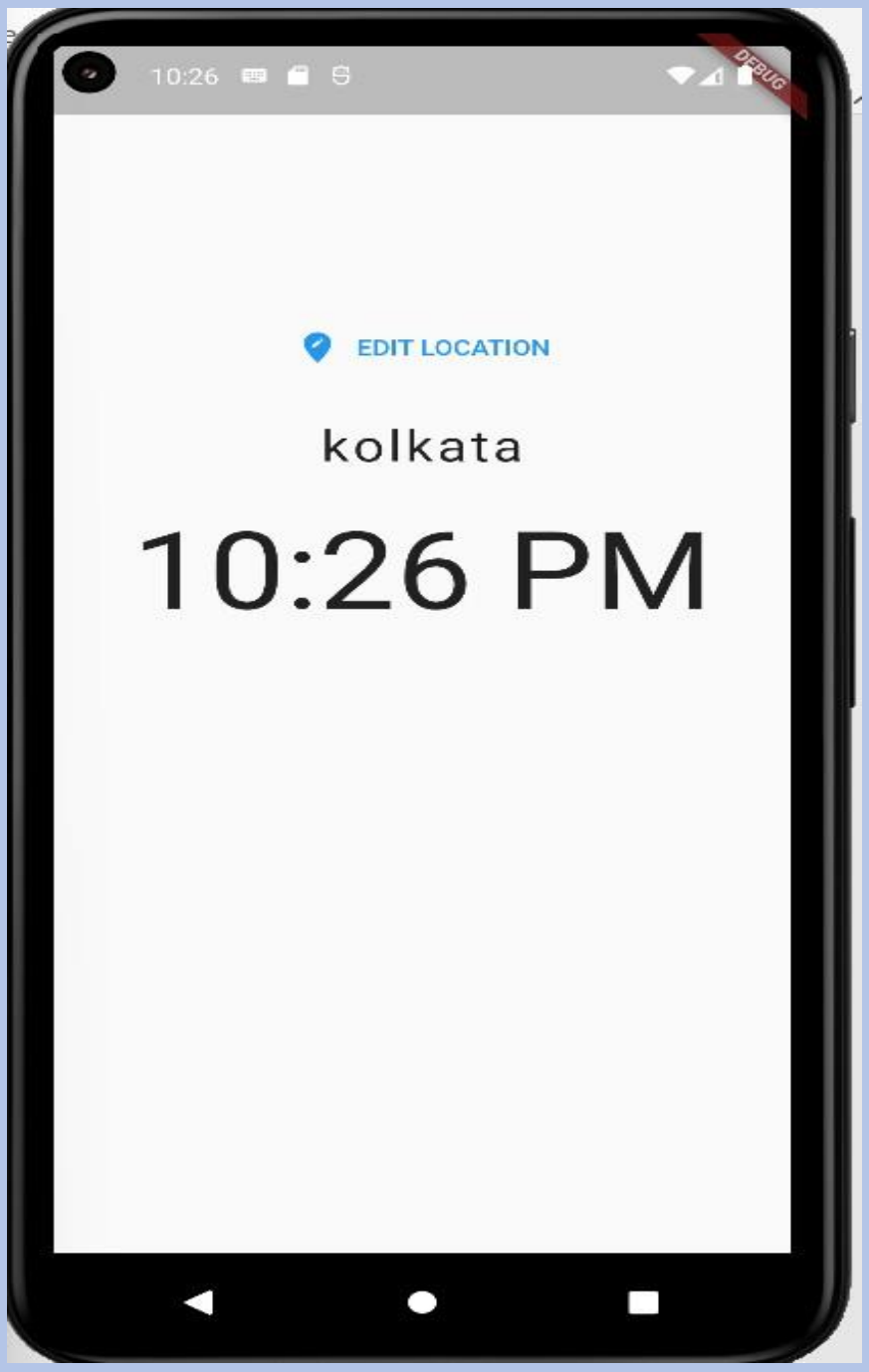
Updated page of world_time.dart

```
import 'package:flutter/material.dart';

class Home extends StatefulWidget {
  @override
  State<Home> createState() => _HomeState();
}
```

```dart
class _HomeState extends State<Home> {
  Map<dynamic, dynamic> data = {};

  @override
  Widget build(BuildContext context) {
    data = ModalRoute.of(context)?.settings.arguments as Map;
    print(data);
    return Padding(
      padding: const EdgeInsets.all(8.0),
      child: Scaffold(
        body: SafeArea(
            child: Padding(
          padding: const EdgeInsets.fromLTRB(0.0, 120.0, 0.0, 0.0),
          child: Column(
            children: [
              TextButton.icon(
                onPressed: () {
                  Navigator.pushNamed(context, '/location');
                },
                icon: Icon(Icons.edit_location),
                label: Text('EDIT LOCATION'),
              ),
              SizedBox(height: 24.0),
              Row(
                mainAxisAlignment: MainAxisAlignment.center,
                children: [
                  Text(
                    data['location'],
                    style: TextStyle(
                      letterSpacing: 2.0,
                      fontSize: 28.0,
                    ),
                  )
                ],
              ),
              SizedBox(
                height: 24.0,
              ),
              Text(
                data['time'],
                style: TextStyle(
                  fontSize: 70.0,
                ),
              )
            ],
          ),
        )),
      ),
    );
  }
}
```

Updated page of home.dart

Output-



Code Test - 4

```
import 'package:flutter/material.dart';
import 'package:flutter_lab_11/services/world_time.dart';
import 'package:flutter_spinkit/flutter_spinkit.dart';

class Loading extends StatefulWidget {
  @override
  State<Loading> createState() => _LoadingState();
}

class _LoadingState extends State<Loading> {
  void setWorldTime() async {
    WordTime timeinstance =
        WordTime(location: 'kolkata', flag: 'india.png', url:
'Asia/Kolkata');
    await timeinstance.getTime();
    Navigator.pushReplacementNamed(context, '/home', arguments: {
      'location': timeinstance.location,
      'flag': timeinstance.flag,
      'time': timeinstance.time,
    });
  }

  @override
  void initState() {
    super.initState();
    setWorldTime();
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
        backgroundColor: Colors.deepPurpleAccent,
        body: Center(
          child: SpinKitFadingCube(
            color: Colors.white,
            size: 90.0,
          ),
        ));
  }
}
```

Updated page of loading.dart

Output-