

Lab : 10

Main.dart

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

void main() {
  runApp(MaterialApp(
    initialRoute: '/',
    routes: {
      '/': (context) => Loading(),
      '/home': (context) => Home(),
      '/location': (context) => ChooseLocation(),
    },
  ));
}
```

World\_time.dart

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

class WorldTime {
  String? location;
  String? time;
  String? flag;
  String? url;
  bool isDayTime = true;

  WorldTime({this.location, this.flag, this.url});

  Future<void> getTime() async {
    try {
      Response response = await get(
Uri.parse('http://worldtimeapi.org/api/timezone/$url'));
      Map timeData = jsonDecode(response.body); String dateTime =
timeData['datetime']; String offset = timeData['utc_offset'];
      String offsetHours = offset.substring(1, 3);
      String offsetMinutes = offset.substring(4, 6);
      DateTime currentTime = DateTime.parse(dateTime);
      currentTime = currentTime.add(
        Duration(
          minutes: int.parse(offsetMinutes),
          hours: int.parse(offsetHours)));
      isDayTime = currentTime.hour > 6 && currentTime.hour < 20 ? true :
false;
    }
  }
}
```

```

        time = DateFormat.jm().format(currentTime);
    }
    catch(e) {
        print('caught error: $e');
        time = "could not get time data";
    }
}
}
}

```

Home.dart

```

import 'package:flutter/material.dart';

class Home extends StatefulWidget {
  const Home({super.key});

  @override
  State<Home> createState() => _HomeState();
}

class _HomeState extends State<Home> {
  Map data = {};
  @override
  Widget build(BuildContext context) {
    data = data.isNotEmpty
      ? data
      : ModalRoute.of(context)?.settings.arguments as Map;

    print(data);
    String bgImage = data['isDayTime'] ? 'day.png' : 'night.png';

    return Scaffold(
      body: SafeArea(
        child: Container(
          decoration: BoxDecoration(
            image: DecorationImage(
              image: AssetImage('assets/images/$bgImage'),
              fit: BoxFit.cover,
            ),
          ),
        ),
        child: Padding(
          padding: const EdgeInsets.fromLTRB(0, 120, 0, 0),
          child: Column(
            children: <Widget>[
              TextButton.icon(
                onPressed: () async {
                  dynamic res = await Navigator.pushNamed(context,
"/location");
                  print(res);

```

```

        setState(() {
          data = {
            'location': res['location'],
            'time': res['time'],
            'flag': res['flag'],
            'isDayTime': res['isDayTime'] ?? true,
          };
        });
      },
      icon: Icon(
        Icons.edit_location,
        color: Color.fromARGB(255, 173, 32, 32),
      ),
      label: Text('Edit Location',
        style: TextStyle(
          color: Color.fromARGB(255, 19, 134, 48),
        )),
      style: TextButton.styleFrom(
        foregroundColor: Colors.black,
      ),
    ),
    SizedBox(height: 20.0),
    Row(
      mainAxisAlignment: MainAxisAlignment.center,
      children: <Widget>[
        Text(
          data['location'],
          style: TextStyle(
            fontSize: 40,
            letterSpacing: 2,
            color: Color.fromARGB(255, 11, 4, 101),
          ),
        ),
      ],
    ),
    SizedBox(height: 20.0),
    Text(
      data['time'],
      style: TextStyle(
        fontSize: 60,
        color: Color.fromARGB(255, 34, 97, 152),
      ),
    ),
  ],
),
),
),
),
),
));

```

```
}  
}
```

Choose\_location.dart

```
import 'package:flutter/material.dart';  
import 'package:first_app/services/world_time.dart';  
  
class ChooseLocation extends StatefulWidget {  
  const ChooseLocation({super.key});  
  @override  
  State<ChooseLocation> createState() => _ChooseLocationState();  
}  
  
class _ChooseLocationState extends State<ChooseLocation> {  
  int counter = 0;  
  List<WorldTime> locations = [  
    WorldTime(location: 'kolkata', flag: 'india.png', url: 'Asia/Kolkata'),  
    WorldTime(url: 'Europe/London', location: 'London', flag: 'usa.png'),  
    WorldTime(url: 'Europe/Berlin', location: 'Athens', flag: 'spain.png'),  
    WorldTime(url: 'Africa/Nairobi', location: 'Nairobi', flag: 'russia.png'),  
    WorldTime(url: 'America/Chicago', location: 'Chicago', flag: 'usa.png'),  
    WorldTime(url: 'America/New_York', location: 'New York', flag: 'usa.png'),  
    WorldTime(url: 'Asia/Seoul', location: 'Seoul', flag: 'south-africa.png'),  
    WorldTime(url: 'Asia/Jakarta', location: 'Jakarta', flag:  
'australia.png'),  
  ];  
  
  void updateTime(index) async {  
    WorldTime instance = locations[index];  
    await instance.getTime();  
    Navigator.pop(context, {  
      'location': instance.location,  
      'time': instance.time,  
      'flag': instance.flag,  
      'isDaytime': instance.isDayTime,  
    });  
  }  
  
  @override  
  Widget build(BuildContext context) {  
    return Scaffold(  
      appBar: AppBar(  
        title: Text("Choose Location"),  
      ),  
      body: ListView.builder(  
        itemBuilder: (context, index) {  
          return Padding(  

```

```

padding: const EdgeInsets.symmetric(vertical: 1.0, horizontal:
4.0),
child: Card(
  child: ListTile(
    onTap: () {
      updateTime(index);
    },
    title: Text(locations[index].location!),
    leading: CircleAvatar(
      backgroundImage:
        AssetImage('assets/images/${locations[index].flag}'),
    ),
  ),
),
);
},
itemCount: locations.length,
),
);
}
}

```

Loading.dart

```

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

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

class _LoadingState extends State<Loading> {
  void setWorldTime() async {
    WorldTime timeInstance =
      WorldTime(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,
      'isDayTime': timeInstance.isDayTime,
    });
  }

  @override
  void initState() {

```

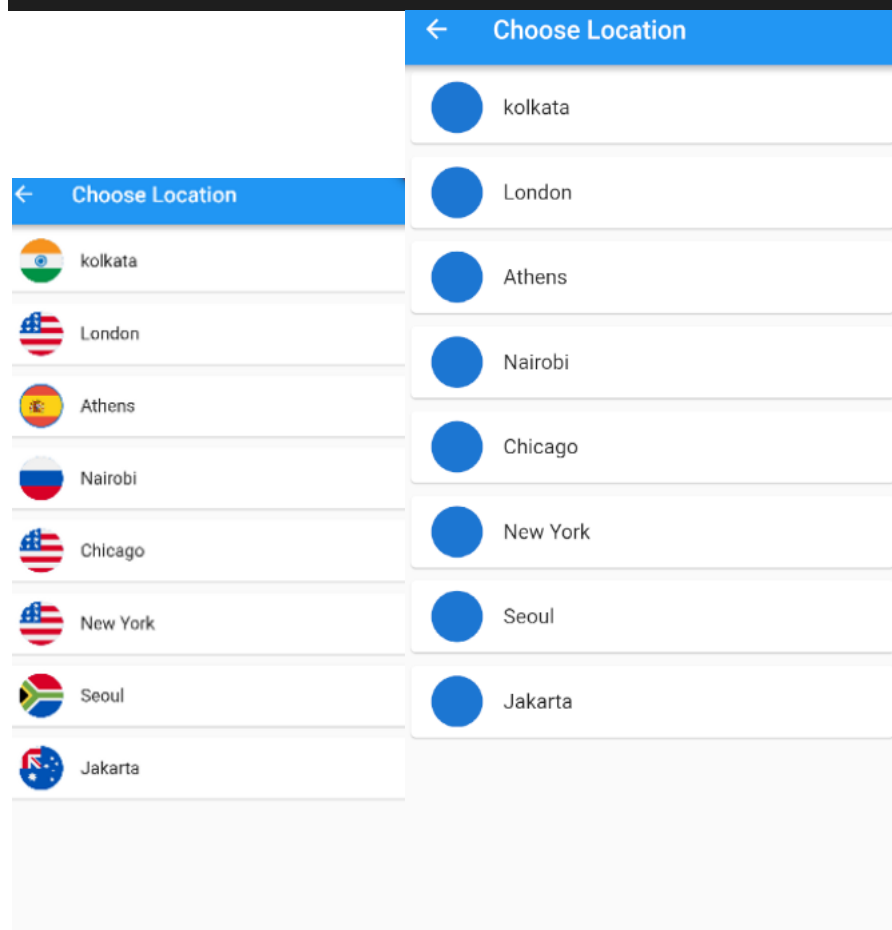
```

    super.initState();
    setWorldTime();
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Center(
        child: CircularProgressIndicator(),
      ),
    );
  }
}

```

Output:-



 Edit Location

Kolkata

6:44 PM

 Adobe Stock

 Edit Location

Kolkata

could not get  
time data