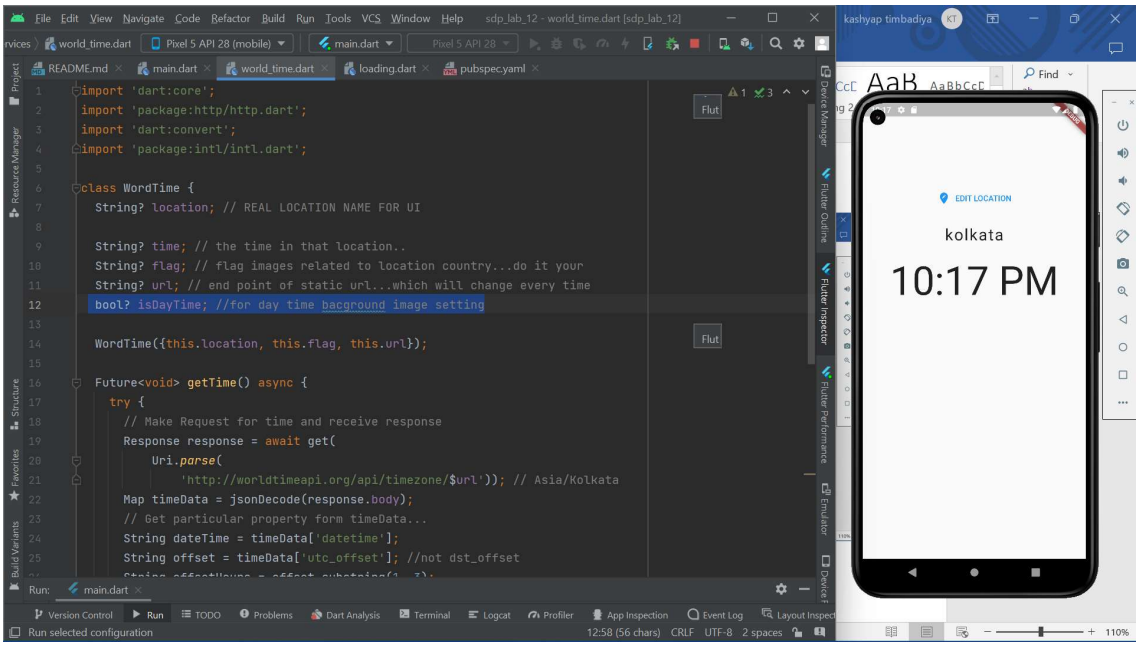
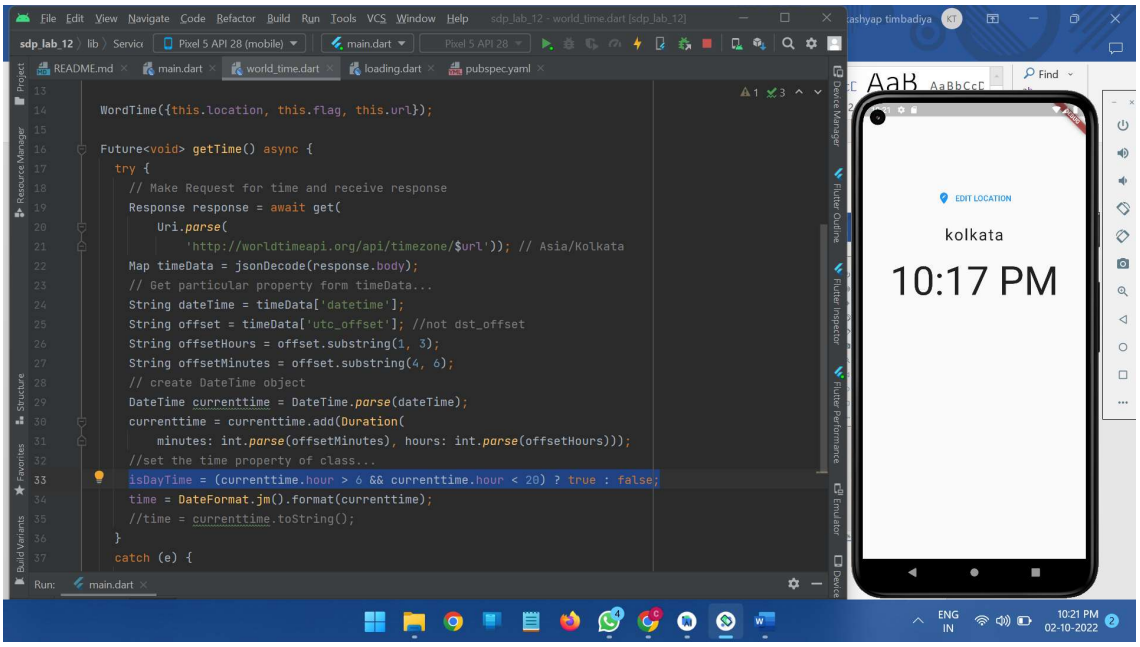
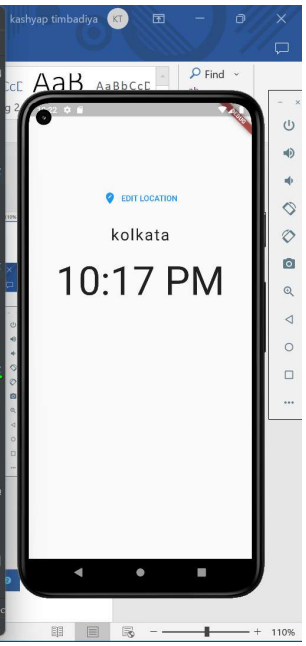
```dart
import 'dart:core';
import 'package:http/http.dart';
import 'dart:convert';
import 'package:intl/intl.dart';

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
  String? url; // end point of static url...which will change every time
  bool? isDayTime; //for day time background image setting

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

  Future<void> getTime() async {
    try {
      // Make Request for time and receive response
      Response response = await 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
```




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

  Future<void> getTime() async {
    try {
      // Make Request for time and receive response
      Response response = await 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...
      isDayTime = (currenttime.hour > 6 && currenttime.hour < 20) ? true : false;
      time = DateFormat.jm().format(currenttime);
      //time = currenttime.toString();
    }
    catch (e) {
```

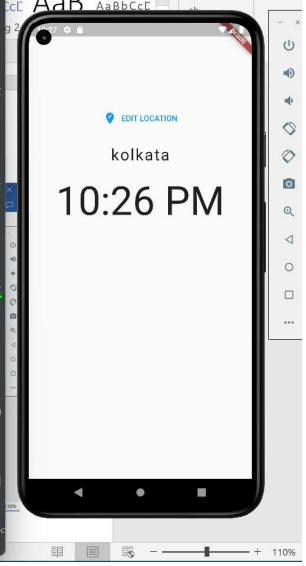


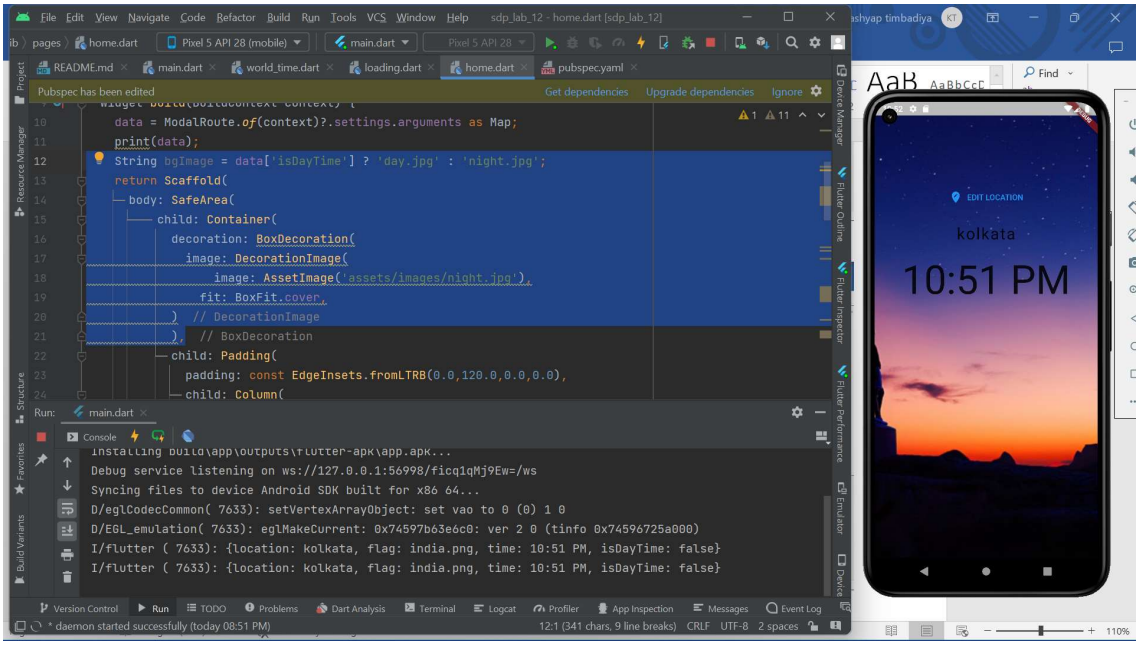
```dart
import 'package:http/http.dart';

import 'package:flutter/material.dart';

import '../Services/world_time.dart';

class Loading extends StatefulWidget {
  // const Loading({Key? key}) : super(key: key);
  @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();
    Navigator.pushNamed(context, '/home',arguments: {
      'location' : timeinstance.location,
      'flag' : timeinstance.flag,
      'time' : timeinstance.time,
      'isDayTime' : timeinstance.isDayTime,
    });
  }
```

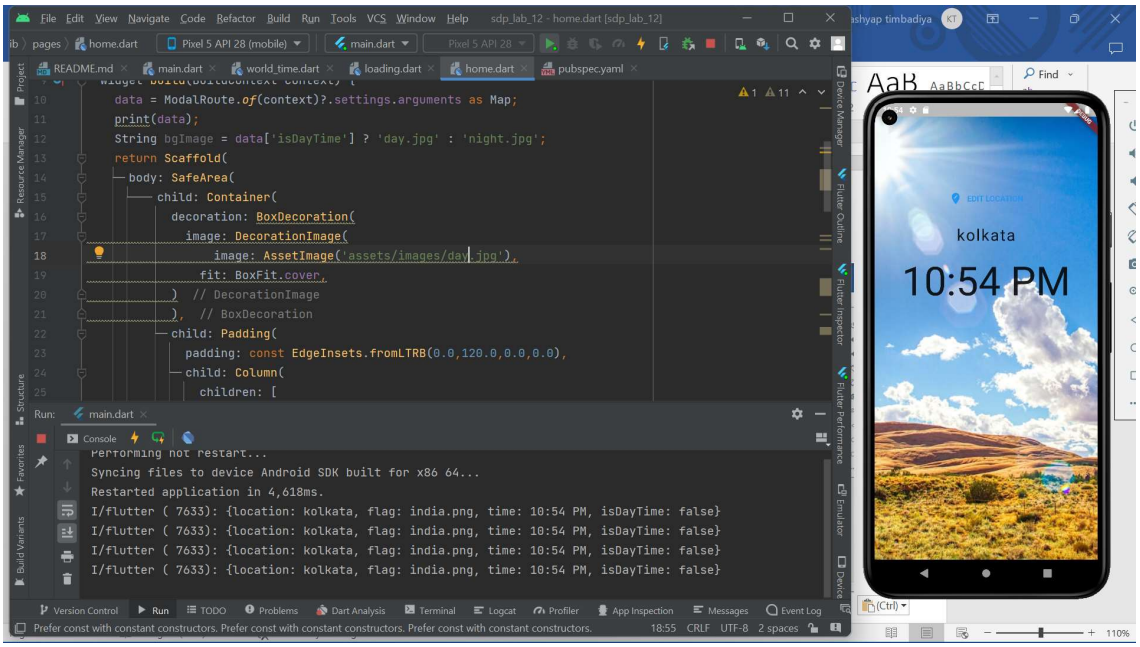


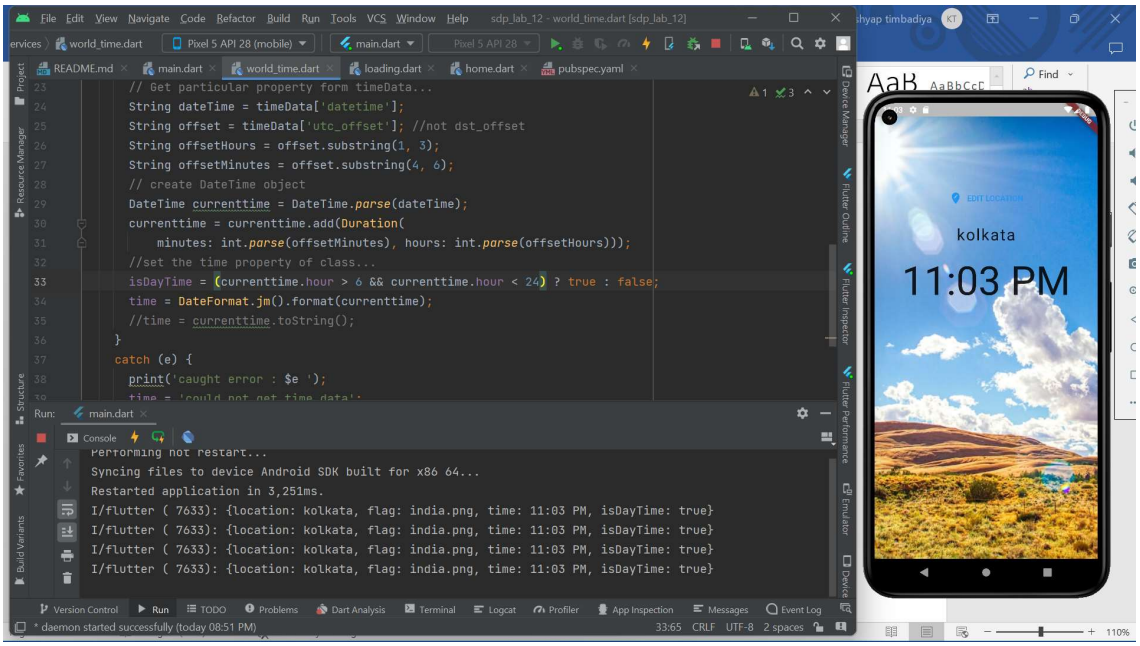

```dart
  void setWorldTime() async {
    WordTime timeinstance =
    WordTime(location: 'kolkata', flag: 'india.png', url: 'Asia/Kolkata');
    await timeinstance.getTime();
    Navigator.pushNamed(context, '/home',arguments: {
      'location' : timeinstance.location,
      'flag' : timeinstance.flag,
      'time' : timeinstance.time,
      'isDayTime' : timeinstance.isDayTime,
    });
  }
  @override
  void initState() {
    super.initState();
    setWorldTime();
  }
```

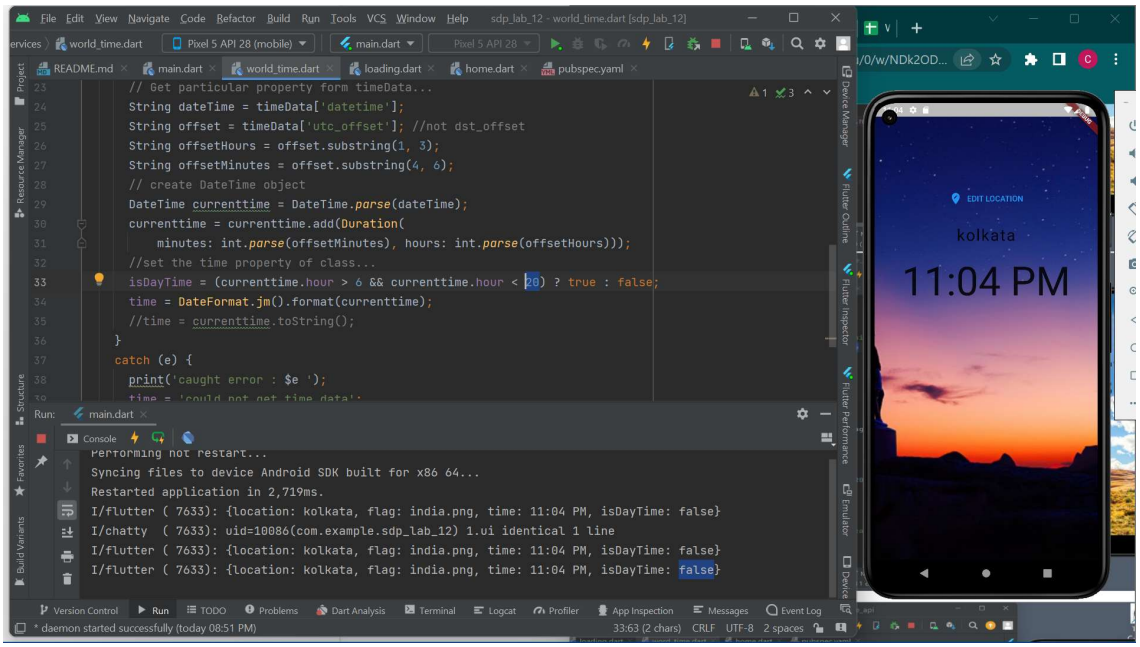
```
Syncing files to device Android SDK Built for x86 64...
Restarted application in 2,204ms.
I/flutter ( 5587): {location: kolkata, flag: india.png, time: 10:26 PM, isDayTime: false}
I/chatty  ( 5587): uid=10086(com.example.sdp_lab_12) 1.ui identical 1 line
I/flutter ( 5587): {location: kolkata, flag: india.png, time: 10:26 PM, isDayTime: false}
I/flutter ( 5587): {location: kolkata, flag: india.png, time: 10:26 PM, isDayTime: false}
I/flutter ( 5587): {location: kolkata, flag: india.png, time: 10:26 PM, isDayTime: false}
```

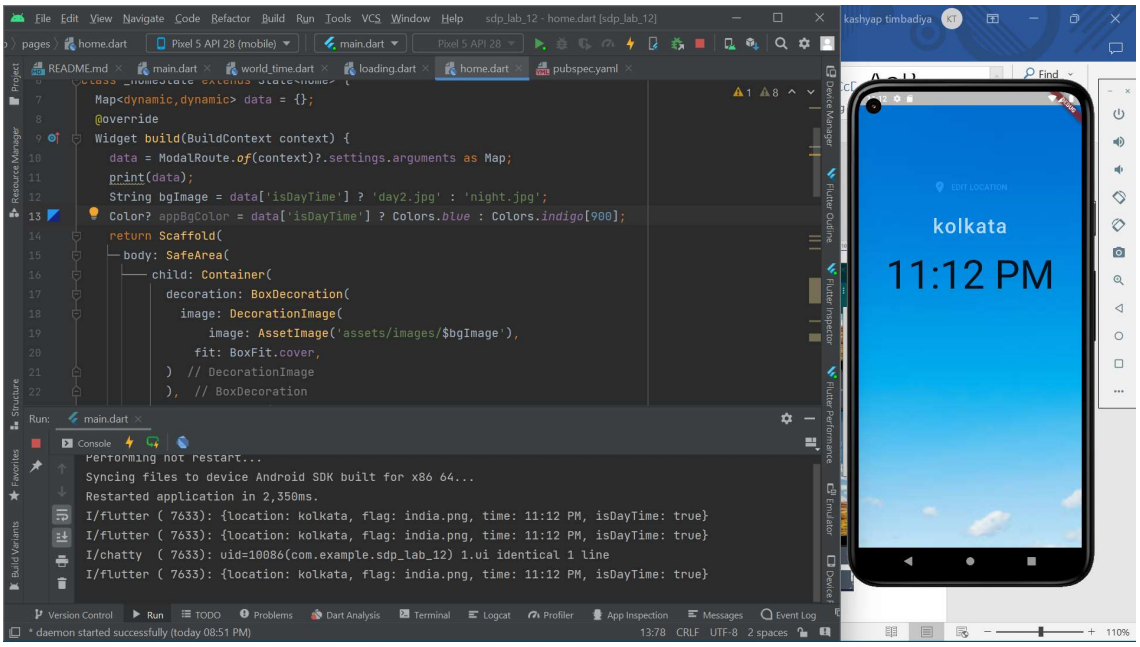


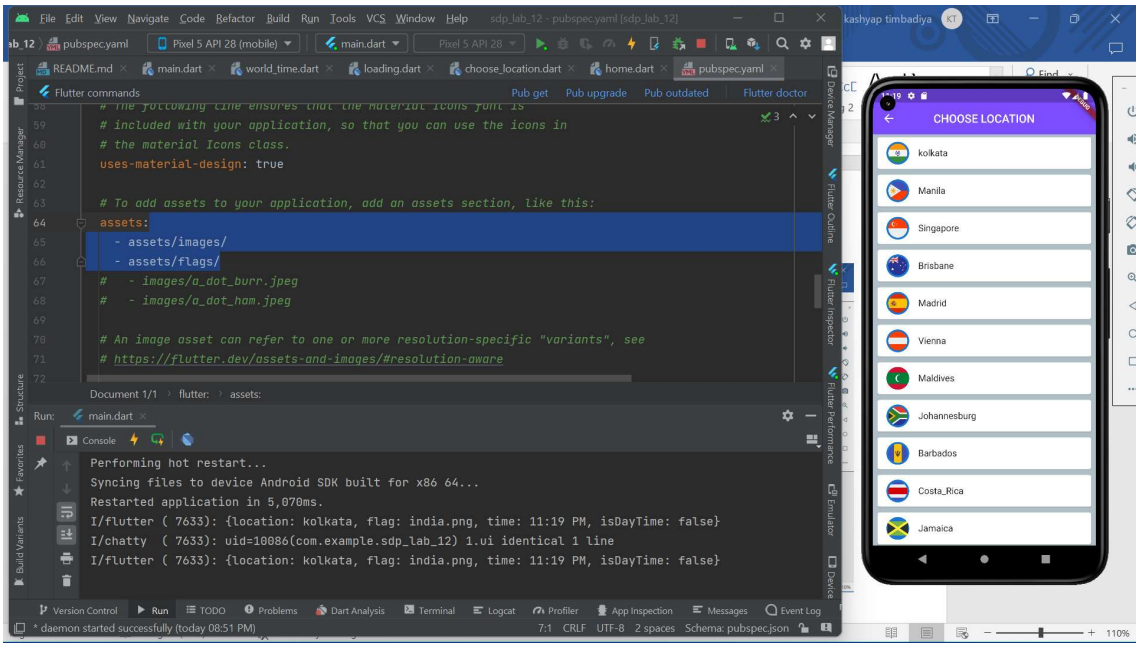

sdp_lab_12 - home.dart [sdp_lab_12]
data = ModalRoute.of(context)?.settings.arguments as Map;
print(data);
String bgImage = data['isDayTime'] ? 'day.jpg' : 'night.jpg';
return Scaffold(
body: SafeArea(
child: Container(
decoration: BoxDecoration(
image: DecorationImage(
image: AssetImage('assets/images/night.jpg'),
fit: BoxFit.cover,
) // DecorationImage
), // BoxDecoration
child: Padding(
padding: const EdgeInsets.fromLTRB(0.0,120.0,0.0,0.0),
child: Column(
Debug service listening on ws://127.0.0.1:56998/ficq1qMj9Ew=/ws
Syncing files to device Android SDK built for x86 64...
D/eglCodecCommon(7633): setVertexArrayObject: set vao to 0 (0) 1 0
D/EGL_emulation(7633): eglMakeCurrent: 0x74597b63e6c0: ver 2 0 (tinfo 0x74596725a000)
I/flutter (7633): {location: kolkata, flag: india.png, time: 10:51 PM, isDayTime: false}
I/flutter (7633): {location: kolkata, flag: india.png, time: 10:51 PM, isDayTime: false}
EDIT LOCATION
kolkata
10:51 PM


sdp_lab_12 - home.dart [sdp_lab_12]
data = ModalRoute.of(context)?.settings.arguments as Map;
print(data);
String bgImage = data['isDayTime'] ? 'day.jpg' : 'night.jpg';
return Scaffold(
body: SafeArea(
child: Container(
decoration: BoxDecoration(
image: DecorationImage(
image: AssetImage('assets/images/day.jpg'),
fit: BoxFit.cover,
) // DecorationImage
), // BoxDecoration
child: Padding(
padding: const EdgeInsets.fromLTRB(0.0,120.0,0.0,0.0),
child: Column(
children: [
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 4,618ms.
I/flutter (7633): {location: kolkata, flag: india.png, time: 10:54 PM, isDayTime: false}
I/flutter (7633): {location: kolkata, flag: india.png, time: 10:54 PM, isDayTime: false}
I/flutter (7633): {location: kolkata, flag: india.png, time: 10:54 PM, isDayTime: false}
I/flutter (7633): {location: kolkata, flag: india.png, time: 10:54 PM, isDayTime: false}
kolkata
10:54 PM

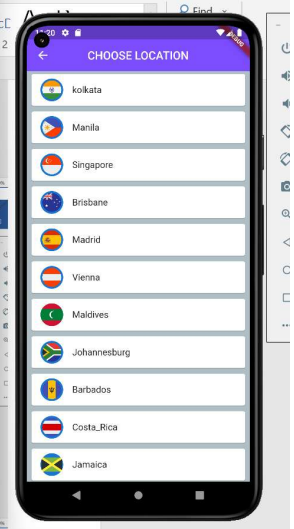

File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
sdp_lab_12 - world_time.dart [sdp_lab_12]
world_time.dart
Pixel 5 API 28 (mobile)
main.dart
Pixel 5 API 28
README.md
main.dart
world_time.dart
loading.dart
home.dart
pubspec.yaml
// Get particular property form timeData...
String dateTime = 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...
isDayTime = (currenttime.hour > 6 && currenttime.hour < 24) ? true : false;
time = DateFormat.jm().format(currenttime);
//time = currenttime.toString();
}
catch (e) {
print('caught error : $e ');
Run: main.dart
Console
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 3,251ms.
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:03 PM, isDayTime: true}
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:03 PM, isDayTime: true}
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:03 PM, isDayTime: true}
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:03 PM, isDayTime: true}
Version Control
Run
TODO
Problems
Dart Analysis
Terminal
Logcat
Profiler
App Inspection
Messages
Event Log
* daemon started successfully (today 08:51 PM)
33:65
CRLF
UTF-8
2 spaces
EDIT LOCATION
kolkata
11:03 PM


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
sdp_lab_12 - world_time.dart [sdp_lab_12]
world_time.dart
Pixel 5 API 28 (mobile)
main.dart
Pixel 5 API 28
README.md
main.dart
world_time.dart
loading.dart
home.dart
pubspec.yaml
// 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...
isDayTime = (currenttime.hour > 6 && currenttime.hour < 20) ? true : false;
time = DateFormat.jm().format(currenttime);
//time = currenttime.toString();
}
catch (e) {
print('caught error : $e ');
Run: main.dart
Console
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 2,719ms.
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:04 PM, isDayTime: false}
I/chatty (7633): uid=10086(com.example.sdp_lab_12) 1.ui identical 1 line
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:04 PM, isDayTime: false}
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:04 PM, isDayTime: false}
Version Control
Run
TODO
Problems
Dart Analysis
Terminal
Logcat
Profiler
App Inspection
Messages
Event Log
* daemon started successfully (today 08:51 PM)
33:63 (2 chars)
CRLF
UTF-8
2 spaces
EDIT LOCATION
kolkata
11:04 PM


sdp_lab_12 - home.dart [sdp_lab_12]
Map<dynamic,dynamic> data = {};
@override
Widget build(BuildContext context) {
data = ModalRoute.of(context)?.settings.arguments as Map;
print(data);
String bgImage = data['isDayTime'] ? 'day2.jpg' : 'night.jpg';
Color? appBgColor = data['isDayTime'] ? Colors.blue : Colors.indigo[900];
return Scaffold(
body: SafeArea(
child: Container(
decoration: BoxDecoration(
image: DecorationImage(
image: AssetImage('assets/images/$bgImage'),
fit: BoxFit.cover,
) // DecorationImage
), // BoxDecoration
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 2,350ms.
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:12 PM, isDayTime: true}
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:12 PM, isDayTime: true}
I/chatty (7633): uid=10086(com.example.sdp_lab_12) 1.ui identical 1 line
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:12 PM, isDayTime: true}
kolkata
11:12 PM

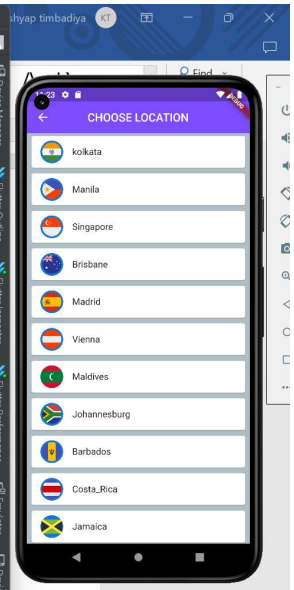

sdp_lab_12 - pubspec.yaml [sdp_lab_12]
included with your application, so that you can use the icons in
the material Icons class.
uses-material-design: true
To add assets to your application, add an assets section, like this:
assets:
- assets/images/
- assets/flags/
- images/a_dot_burr.jpeg
- images/a_dot_ham.jpeg
An image asset can refer to one or more resolution-specific "variants", see
https://flutter.dev/assets-and-images/#resolution-aware
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 5,070ms.
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:19 PM, isDayTime: false}
I/chatty (7633): uid=10086(com.example.sdp_lab_12) 1.ui identical 1 line
I/flutter (7633): {location: kolkata, flag: india.png, time: 11:19 PM, isDayTime: false}
CHOOSE LOCATION
kolkata
Manila
Singapore
Brisbane
Madrid
Vienna
Maldives
Johannesburg
Barbados
Costa_Rica
Jamaica

```dart
class _ChooseLocationState extends State<ChooseLocation> {
  int counter = 0;
  List<WordTime> locations = [
    WordTime(location: 'kolkata',flag: 'india.png',url: 'Asia/Kolkata'),
    WordTime(location: 'Manila',flag: 'philippines.png',url: 'Asia/Manila'),
    WordTime(location: 'Singapore',flag: 'singapore.png',url: 'Asia/Singapore'),
    WordTime(location: 'Brisbane',flag: 'australia.png',url: 'Australia/Brisbane'),
    WordTime(location: 'Madrid',flag: 'spain.png',url: 'Europe/Madrid'),
    WordTime(location: 'Vienna',flag: 'austria.png',url: 'Europe/Vienna'),
    WordTime(location: 'Maldives',flag: 'maldives.png',url: 'Indian/Maldives'),
    WordTime(location: 'Johannesburg',flag: 'south-africa.png',url:
    'Africa/Johannesburg'),
    WordTime(location: 'Barbados',flag: 'barbados.png',url: 'America/Barbados'),
    WordTime(location: 'Costa_Rica',flag: 'costa-rica.png',url:
    'America/Costa_Rica'),
    WordTime(location: 'Jamaica',flag: 'jamaica.png',url: 'America/Jamaica'),
    WordTime(location: 'Phoenix',flag: 'usa.png',url: 'America/Phoenix'),
    WordTime(location: 'Broken_Hill',flag: 'australia.png',url:
    'Australia/Broken_Hill'),
    WordTime(location: 'Moscow',flag: 'russia.png',url: 'Europe/Moscow'),
  ];
  void updateTime(index) async {
    WordTime instance = locations[index];
    await instance.getTime();
```



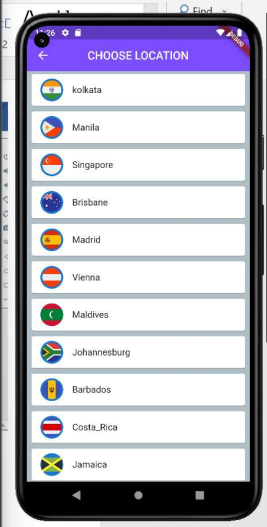

```dart
    padding: const EdgeInsets.symmetric(vertical: 1.0,horizontal: 4.0),
    child: Card(
    child: ListTile(
    onTap: () {
      print(locations[index].location);
    updateTime(index);
    },
    title: Text(locations[index].location.toString()),
    leading: CircleAvatar(
    backgroundImage: AssetImage('assets/flags/${locations[index].flag}'),
    ),  // CircleAvatar
    ),  // ListTile
    ),  // Card
    );  // Padding
    },
    ),  // ListView.builder
```

```
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 1,409ms.
I/flutter ( 7633): kolkata
I/flutter ( 7633): Singapore
```



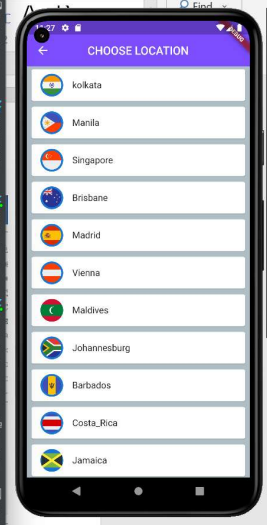
```
});
},
child: Text('COUNTER IS : $counter'),
),
*/
body: ListView.builder(
itemCount: locations.length,
itemBuilder: (context,index) {
return Padding(
padding: const EdgeInsets.symmetric(vertical: 1.0,horizontal: 4.0),
child: Card(
child: ListTile(
onTap: () {
  updateTime(index);
  print(locations[index].location);
updateTime(index);
```

```
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 2,484ms.
```



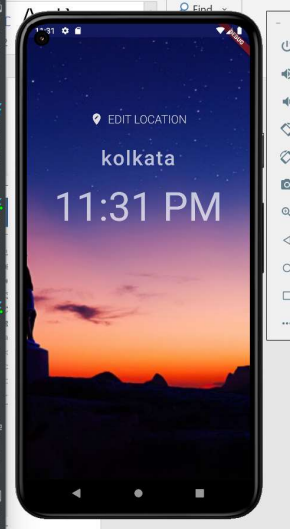

```
    await instance.getTime();
// navigate to home screen by popping instead of pushing new replica
// of home screen
    Navigator.pop(context,{
      'location' : timeinstance.location,
      'flag' : timeinstance.flag,
      'time' : timeinstance.time,
      'isDayTime' : timeinstance.isDayTime,
    });
  }
  @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
```

```
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 2,484ms.
```



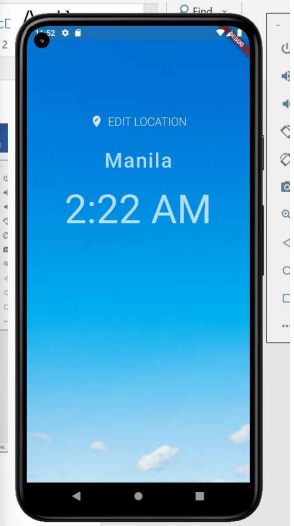
```dart
  @override
  State<Home> createState() => _HomeState();
}

class _HomeState extends State<Home> {
  Map<dynamic, dynamic> data = {};
  @override
  Widget build(BuildContext context) {
    data = data.isNotEmpty
        ? data
        : ModalRoute.of(context)?.settings.arguments as Map;
    print(data);
// set background images
    String bgImage = data['isDayTime'] ? 'day2.jpg' : 'night.jpg';
    Color? appBgColor = data['isDayTime'] ? Colors.blue : Colors.indigo[900];
    return Scaffold(
      backgroundColor: appBgColor
```

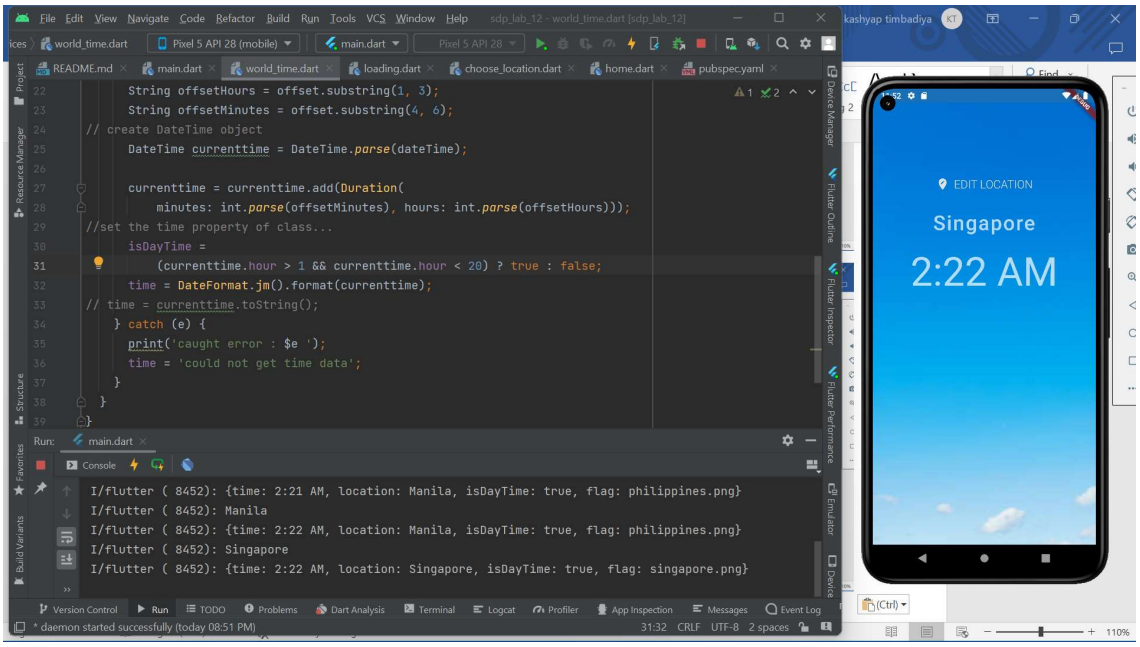
```
Performing hot restart...
Syncing files to device Android SDK built for x86 64...
Restarted application in 3,655ms.
I/flutter ( 7633): {location: kolkata, flag: india.png, time: 11:31 PM, isDayTime: false}
I/flutter ( 7633): {location: kolkata, flag: india.png, time: 11:31 PM, isDayTime: false}
```

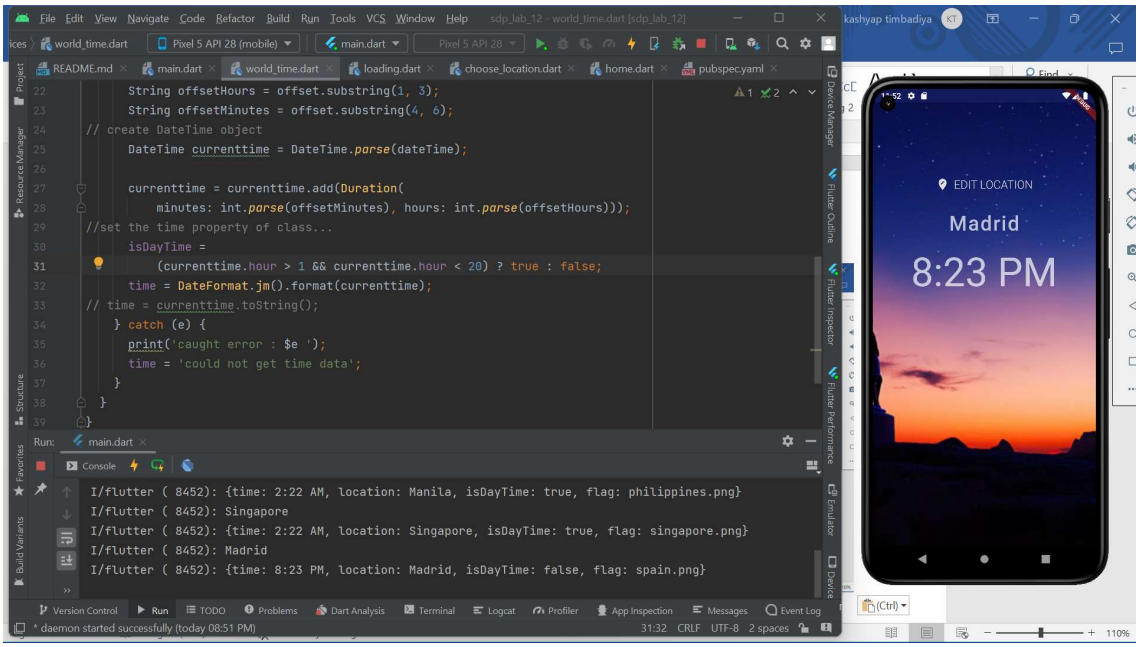



```dart
        String offsetHours = offset.substring(1, 3);
        String offsetMinutes = offset.substring(4, 6);
// create DateTime object
        DateTime currenttime = DateTime.parse(dateTime);

        currenttime = currenttime.add(Duration(
            minutes: int.parse(offsetMinutes), hours: int.parse(offsetHours)));
//set the time property of class...
        isDayTime =
            (currenttime.hour > 1 && currenttime.hour < 20) ? true : false;
        time = DateFormat.jm().format(currenttime);
// time = currenttime.toString();
      } catch (e) {
        print('caught error : $e ');
        time = 'could not get time data';
      }
    }
}
```

```
I/flutter ( 8452): {time: 11:51 PM, location: kolkata, isDayTime: false, flag: india.png}
I/flutter ( 8452): Manila
I/flutter ( 8452): {time: 2:21 AM, location: Manila, isDayTime: true, flag: philippines.png}
I/flutter ( 8452): Manila
I/flutter ( 8452): {time: 2:22 AM, location: Manila, isDayTime: true, flag: philippines.png}
```




File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
sdp_lab_12 - world_time.dart [sdp_lab_12]
world_time.dart
Pixel 5 API 28 (mobile)
main.dart
Pixel 5 API 28
README.md
main.dart
world_time.dart
loading.dart
choose_location.dart
home.dart
pubspec.yaml
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...
isDayTime =
(currenttime.hour > 1 && currenttime.hour < 20) ? true : false;
time = DateFormat.jm().format(currenttime);
// time = currenttime.toString();
} catch (e) {
print('caught error : $e ');
time = 'could not get time data';
}
}
}
Run: main.dart
Console
I/flutter (8452): {time: 2:21 AM, location: Manila, isDayTime: true, flag: philippines.png}
I/flutter (8452): Manila
I/flutter (8452): {time: 2:22 AM, location: Manila, isDayTime: true, flag: philippines.png}
I/flutter (8452): Singapore
I/flutter (8452): {time: 2:22 AM, location: Singapore, isDayTime: true, flag: singapore.png}
Version Control
Run
TODO
Problems
Dart Analysis
Terminal
Logcat
Profiler
App Inspection
Messages
Event Log
* daemon started successfully (today 08:51 PM)
31:32 CRLF UTF-8 2 spaces
kashyap timbadiya
EDIT LOCATION
Singapore
2:22 AM


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
sdp_lab_12 - world_time.dart [sdp_lab_12]
world_time.dart
Pixel 5 API 28 (mobile)
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Pixel 5 API 28
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}
}
}
Run: main.dart
Console
I/flutter (8452): {time: 2:22 AM, location: Manila, isDayTime: true, flag: philippines.png}
I/flutter (8452): Singapore
I/flutter (8452): {time: 2:22 AM, location: Singapore, isDayTime: true, flag: singapore.png}
I/flutter (8452): Madrid
I/flutter (8452): {time: 8:23 PM, location: Madrid, isDayTime: false, flag: spain.png}
* daemon started successfully (today 08:51 PM)
31:32 CRLF UTF-8 2 spaces
kashyap timbadiya
EDIT LOCATION
Madrid
8:23 PM