

3. a) Explore various Flutter widgets (Text, Image, Container, etc.).

Text Widget:

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

// function to trigger build process
void main() => runApp(const TestTextClass());

class TestTextClass extends StatelessWidget {
  const TestTextClass({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      home: Scaffold(
        backgroundColor: Colors.lightGreen,
        appBar: AppBar(
          backgroundColor: Colors.green,
          title: const Text("welcome Screen"),
        ), // AppBar
        body: Container(
          child: const Center(
            child: Text("Hello world!!"),
          ), // Center
        ), // Container
      ), // Scaffold
    ); // MaterialApp
  }
}
```

Image Widget:

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

// function to start app building
void main() => runApp(const MyApp());

class MyApp extends StatelessWidget {
  const MyApp({Key? key}) : super(key: key);
  // This widget is the root
  // of your application
```

```

@override
Widget build(BuildContext context) {
  return MaterialApp(
    home: Scaffold(
      appBar: AppBar(
        title: const Text(
          'Insert Image Demo',
        ),
      ),
      body: Center(
        child: Column(
          children: <Widget>[
            Image.asset('assets/images/nature.jpg',
              height: 200, scale: 2.5,
              // color: Color.fromARGB(255, 15, 147, 59),
              opacity: const
                AlwaysStoppedAnimation<double>(0.5)),
            //Image.asset
            Image.asset( 'assets/images/nature.jpg', height: 400,
              width:400,
            ), // Image.asset
          ], //<Widget>[]
        ), //Column
      ), //Center
    ),
  );
}

```

Containter Widget:

```

import 'package:flutter/material.dart';

void main() => runApp(const MyApp());

class MyApp extends StatelessWidget {
  const MyApp({ Key? key }) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      home: Scaffold(
        appBar: AppBar(

```

```

        title: const Text("Container example"),
      ),
      body: Container(
        height: 200,
        width: double.infinity,
        //color: Colors.purple,
        alignment: Alignment.center,
        margin: const EdgeInsets.all(20),
        padding: const EdgeInsets.all(30),
        decoration: BoxDecoration(
          border: Border.all(color: Colors.black, width: 3),
        ),
        child: const Text("Hello! i am inside a container!",
          style: TextStyle(fontSize: 20)),
      ),
    ),
  );
}
}

```

b) Implement different layout structures using Row.

Row Widget

```

import 'package:flutter/material.dart';

void main() { runApp(MyApp()); }
class MyApp extends StatelessWidget {

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      home: MyHomePage()
    );
  }
}
class MyHomePage extends StatefulWidget {
  @override
  _MyHomePageState createState() => _MyHomePageState();
}
class _MyHomePageState extends State<MyHomePage> {
  @override
  Widget build(BuildContext context) {

```

```

return Scaffold(
  appBar: AppBar(
    title: Text("Flutter Row Example"),
  ),
  body: Row(
    mainAxisAlignment: MainAxisAlignment.spaceEvenly,
    children:<Widget>[
      Container(
        margin: EdgeInsets.all(12.0),
        padding: EdgeInsets.all(8.0),
        decoration: BoxDecoration(
          borderRadius: BorderRadius.circular(8),
          color: Colors.green
        ),
        child:
          Text("React.js", style:
            TextStyle(color: Colors.yellowAccent, fontSize: 25),),
      ),
      Container(
        margin: EdgeInsets.all(15.0),
        padding: EdgeInsets.all(8.0),
        decoration: BoxDecoration(
          borderRadius: BorderRadius.circular(8),
          color: Colors.green
        ),
        child: Text("Flutter", style:
          TextStyle(color: Colors.yellowAccent, fontSize: 25),),
      ),
      Container(
        margin: EdgeInsets.all(12.0),
        padding: EdgeInsets.all(8.0),
        decoration: BoxDecoration(
          borderRadius: BorderRadius.circular(8),
          color: Colors.green
        ),
        child: Text("MySQL", style:
          TextStyle(color: Colors.yellowAccent, fontSize: 25),),
      )
    ],
  ),
);
}
}

```

