MAD PWD LAB 2

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AIM:To design Flutter UI by including common widgets.

Theory:

Common flutter widgets are as follows:

1.Text: The Text widget is used to display a piece of text in a Flutter application. It allows you to customize the text's style, such as font size, color, weight, alignment, and more.

2.Container: The Container widget is a versatile widget used to create visual elements, such as boxes, padding, margins, and borders. It's widely used for layout purposes and can contain other widgets within it.

3.Row and Column: These widgets are used to arrange child widgets horizontally (Row) or vertically (Column). They are fundamental for creating layouts in Flutter, allowing you to build complex UI designs by nesting them within each other.

4.Image: The Image widget is used to display images in a Flutter application. It supports various image formats and can load images from different sources, such as assets, network URLs, and memory.

5.Button Widgets: Flutter provides several button widgets for user interaction, such as ElevatedButton, TextButton, OutlinedButton, and IconButton. These widgets allow users to trigger actions by tapping or clicking on them.

6.TextField: The TextField widget is used to accept user input as text. It provides a text input field where users can type, edit, and submit text data. You can customize its appearance and behavior, including input validation and keyboard type.

7.ListView: The ListView widget is used to display a scrollable list of widgets. It's commonly used for displaying large sets of data or dynamic content. Flutter offers

various types of list views, such as ListView, GridView, and ListView.builder, each with its own use cases and performance optimizations.

8.Stack: The Stack widget allows you to stack multiple widgets on top of each other. It's often used to overlay widgets or create complex layouts where widgets can overlap and be positioned relative to each other.

9.AppBar: The AppBar widget represents the top app bar in a Flutter application. It typically contains a title, leading and trailing actions, and can be customized with various properties to achieve different designs.

10.Scaffold: The Scaffold widget is a fundamental building block for Flutter applications. It provides a layout structure for the app, including support for app bars, navigation drawers, bottom sheets, and more.

Code:

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

void main() {
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter Demo',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: MyHomePage(),
    );
  }
}

class MyHomePage extends StatelessWidget {
```

```
@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text('Flutter Demo'),
    ),
    body: Center(
      child: Column(
        mainAxisAlignment: MainAxisAlignment.center,
        children: <Widget>[
          Text(
            'Welcome to whatsapp!',
            style: TextStyle(
              fontSize: 24.0,
              fontWeight: FontWeight.bold,
            ),
          ),
          SizedBox(height: 40.0),
          Image.asset(
            'assets/whatsapp image.jpg', // Change this to your image path
            width: 150.0,
          ),
          SizedBox(height: 50.0),
          ElevatedButton(
            onPressed: () {
              // Add your onPressed functionality here
            },
            child: Text('Press Me'),
          ),
          SizedBox(height: 10.0),
          TextButton(
            onPressed: () {
              // Add your onPressed functionality here
            },
            child: Text('Flat Button'),
```

```
            ),
            SizedBox(height: 10.0),
            IconButton(
              onPressed: () {
                // Add your onPressed functionality here
              },
              icon: Icon(Icons.star),
              iconSize: 40.0,
              color: Colors.orange,
            ),
          ],
        ),
      ),
    );
  }
}
```

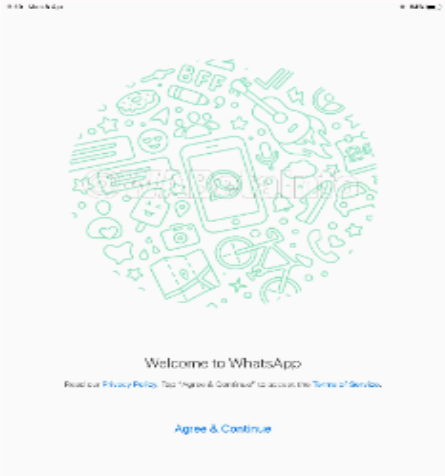
Output:

4:31

DEBUG

Flutter Demo

Welcome to whatsapp!



Press Me

Flat Button

Conclusion:Successfully understood and demonstrated the use of basic widgets in flutter.