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**D15A**

**45**

**Batch B**

## **MAD PWA LAB 2**

### **AIM:**

To design Flutter UI by including common widgets.

### **THEORY:**

**Some common widgets used in Flutter are as follows:**

#### **MaterialApp:**

Represents the overall structure of a Flutter application, providing settings for the app.

#### **Container:**

A box model allowing customization of size, padding, margin, and decoration for its child widget.

#### **Column and Row:**

Column: Arranges children vertically.

Row: Arranges children horizontally.

#### **Text:**

Displays text with specific styles using the TextStyle class.

#### **Image:**

Displays images from various sources, including network URLs or local assets.

#### **ListView:**

Displays a scrolling list of widgets, allowing users to scroll through content.

#### **GestureDetector:**

Captures user gestures like taps, double taps, and swipes, enabling interactive behavior.

#### **Stack:**

Overlaps widgets, allowing them to be positioned on top of each other.

#### **AppBar:**

Represents the app bar at the top of the screen, typically containing the app's title and actions.

#### **TextField:**

Allows users to input text, providing a UI for text entry.

## **SYNTAX:**

Syntaxes for some of common widgets are as follows:

### **1.Text**

```
Text(  
  "Text Content",  
  style: TextStyle(  
    //style properties  
  )  
)
```

### **2.Container**

```
Container(  
  //style like  
  Width: 100,  
  Height: 100,  
  child://child widget to which container contains  
)
```

### **3.TextButton**

```
TextButton(  
  Event: action,  
  child: Text('Button placeholder'),  
)
```

## **WIDGET AND PROPERTIES:**

The widgets used in the following code are MaterialApp, Scaffold, Padding, Column, TextField, SizedBox, TextButton, Icon, Text, EdgeInsets.

- Scaffold is used to define the basic visual structure of the screen.
- SizedBox creates a box of a specified height.
- EdgeInsets provide padding between content and the box.

## **CODE:**

```
import 'package:flutter/material.dart';  
  
void main() {  
  runApp(MyApp());  
}  
  
class MyApp extends StatelessWidget {  
  @override  
  Widget build(BuildContext context) {  
    return MaterialApp(  

```

```

        theme: ThemeData.dark(),
        home: LoginPage(),
    );
}
}

class LoginPage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Padding(
        padding: const EdgeInsets.all(20.0),
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          children: [
            TextField(
              decoration: InputDecoration(
                labelText: 'Username',
                prefixIcon: Icon(Icons.person),
              ),
            ),
            SizedBox(height: 10),
            TextField(
              decoration: InputDecoration(
                labelText: 'Password',
                prefixIcon: Icon(Icons.lock),
              ),
              obscureText: true,
            ),
            SizedBox(height: 20),
            TextButton(
              onPressed: null,
              child: Text('Sign In'),
            ),
          ],
        ),
      ),
    );
  }
}

```

**OUTPUT:**

12:02

Username

Password

Sign In

1 2 3 4 5 6 7 8 9 0  
q w e r t y u i o p  
a s d f g h j k l  
⌵ z x c v b n m ⌵  
?123 , . ✓