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CLASS: D15A
BATCH : B
ROLL NO. 39

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  
)  
)
```

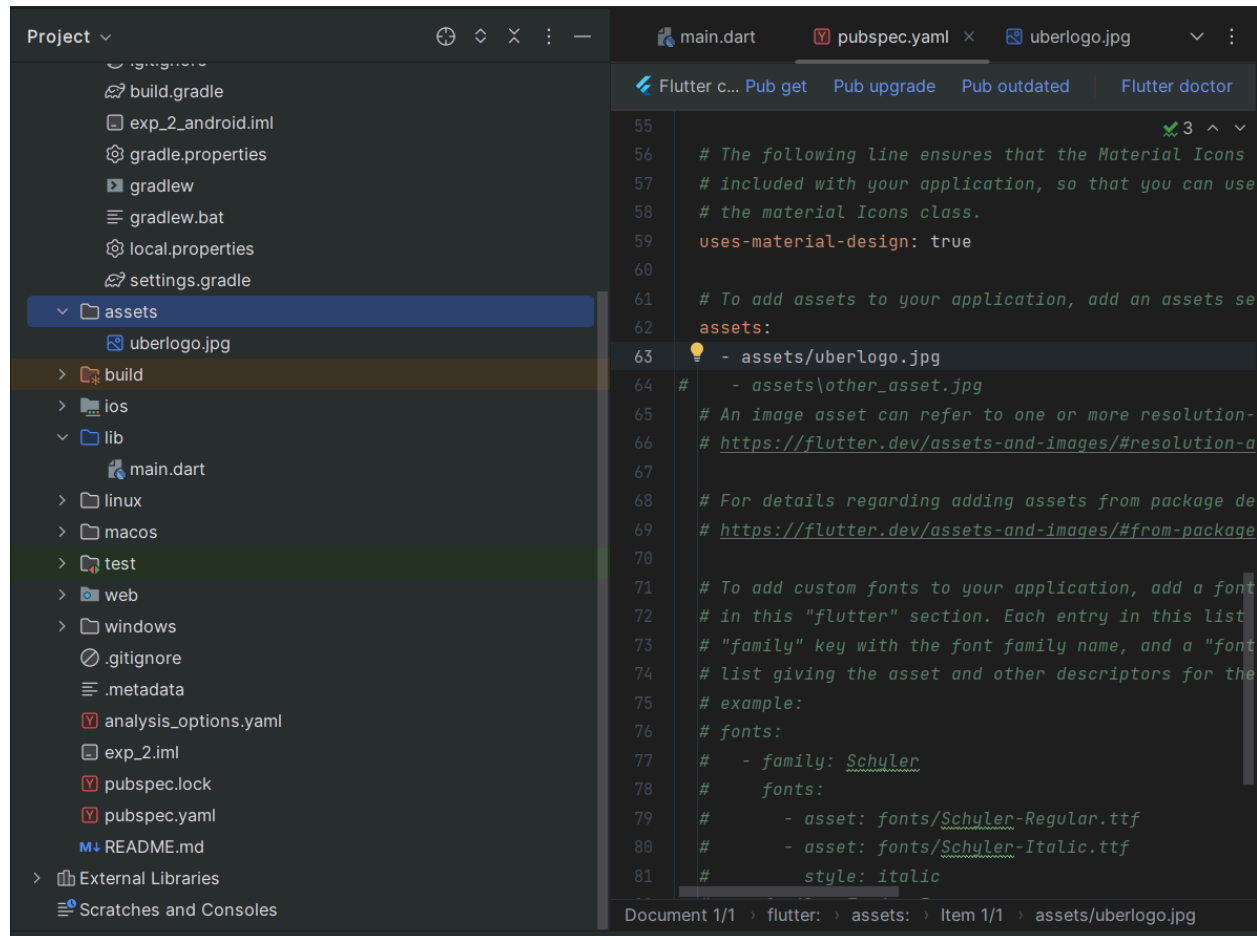
2.Container

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

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

STEPS TO BE FOLLOWED:

1. Make an assets folder/directory and save the image in the folder.
2. Edit the pubspec.yaml file lines 62,63 wherein the path of the image is given.
3. After saving the image make sure to change the name in the main.dart file in Image.asset



CODE:

```
import 'package:firebase_core/firebase_core.dart';
import 'package:firebase_database/firebase_database.dart';
import 'package:flutter/material.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:uber_practice/Authentication/login_screen.dart';
import 'package:uber_practice/methods/common_methods.dart';
import 'package:uber_practice/pages/homepage.dart';

import '../widgets/loading.dart';

class SignUpScreen extends StatefulWidget {
```

```

const SignUpScreen({super.key});

@override
State<SignUpScreen> createState() => _SignUpScreenState();
}

class _SignUpScreenState extends State<SignUpScreen>
{
  TextEditingController userNameTextEditingController =
  TextEditingController();
  TextEditingController userPhoneTextEditingController =
  TextEditingController();
  TextEditingController emailTextEditingController = TextEditingController();
  TextEditingController passwordTextEditingController =
  TextEditingController();

  CommonMethods cMethods = CommonMethods();

  checkIfNetworkIsAvailable()
  {
    cMethods.checkConnectivity(context);

    signUpFormValidation();
  }
  signUpFormValidation()
  {
    if(userNameTextEditingController.text.trim().length < 3)
    {
      cMethods.displaySnackBar("Your name must atleast be 4 or more
characters", context);
    }
    else if(userPhoneTextEditingController.text.trim().length < 7)
    {
      cMethods.displaySnackBar("Your number must atleast be 10 or more
characters", context);
    }
    else if(emailTextEditingController.text.trim().contains("0"))
    {
      cMethods.displaySnackBar("Please write valid email address", context);
    }
    else if(passwordTextEditingController.text.trim().length < 5)
    {

```

```

        cMethods.displaySnackBar("Your password must atleast be 6 or more
characters", context);

    }
    else
    {
        registerNewUser();
    }
}

registerNewUser() async
{
    showDialog(
        context: context,
        barrierDismissible: false,
        builder: (BuildContext context) =>
LoadingDialog(messageText:"Registering your account..."),
    );

    final User? userFirebase = (
        await FirebaseAuth.instance.createUserWithEmailAndPassword(
            email:emailTextEditingController.text.trim(),
            password: passwordTextEditingController.text.trim(),
        ).catchError((errorMsg)
            {
                Navigator.pop(context);
                cMethods.displaySnackBar(errorMsg.toString(), context);
            })
    ).user;
    if(!context.mounted) return;
    Navigator.pop(context);

    DatabaseReference usersRef =
FirebaseDatabase.instance.ref().child("users").child(userFirebase!.uid);
    Map userDataMap =
    {
        "name": userNameTextEditingController.text.trim(),
        "email": emailTextEditingController.text.trim(),
        "phone": userPhoneTextEditingController.text.trim(),
        "id": userFirebase.uid,
        "blockStatus": "no",
    };
    usersRef.set(userDataMap);

    Navigator.push(context, MaterialPageRoute(builder: (c)=> HomePage()));
}

```

```

}

@override
Widget build(BuildContext context)
{
  return Scaffold(
    body: SingleChildScrollView(
      child: Padding(
        padding: const EdgeInsets.all(10),
        child: Column(
          children: [

            Image.asset(
              "assets/images/logo.png"
            ),

            const Text(
              "Create a User\'s Account",
              style: TextStyle(
                fontSize: 26,
                fontWeight: FontWeight.bold,
              ),
            ),

            //textfields+button

            Padding(
              padding: const EdgeInsets.all(22),
              child: Column(
                children: [

                  TextField(
                    controller: userNameTextEditingController,
                    keyboardType: TextInputType.text,
                    decoration: InputDecoration(
                      labelText: "User Name",
                      labelStyle: TextStyle(
                        fontSize: 24,
                      ),
                    ),
                    style: const TextStyle(
                      color: Colors.grey,
                      fontSize: 15,
                    ),
                  ),

```

```
const SizedBox(height: 22,),

TextField(
  controller:userPhoneTextEditingController,
  keyboardType: TextInputType.number,
  decoration: InputDecoration(
    labelText: "Phone Number",
    labelStyle: TextStyle(
      fontSize: 24,
    ),
  ),
  style: const TextStyle(
    color: Colors.grey,
    fontSize: 15,
  ),
),

const SizedBox(height: 22,),

TextField(
  controller:emailTextEditingController,
  keyboardType: TextInputType.emailAddress,
  decoration: InputDecoration(
    labelText: "User Email",
    labelStyle: TextStyle(
      fontSize: 24,
    ),
  ),
  style: const TextStyle(
    color: Colors.grey,
    fontSize: 15,
  ),
),

const SizedBox(height: 22,),

TextField(
  controller:passwordTextEditingController,
  obscureText: true,
  keyboardType: TextInputType.text,
  decoration: InputDecoration(
    labelText: "User Password",
    labelStyle: TextStyle(
      fontSize: 24,
    ),
  ),
  style: const TextStyle(
    color: Colors.grey,
    fontSize: 15,
```

```

        ),
      ),
      const SizedBox(height: 32,),
      ElevatedButton(
        onPressed: ()
      {
        checkIfNetworkIsAvailable();

      },
      style: ElevatedButton.styleFrom(
        backgroundColor: Colors.purple,
        padding: EdgeInsets.symmetric(horizontal: 80,vertical:
15)

      ),
      child: const Text(
        "Sign Up",
        style: TextStyle(
          fontSize: 25
        ),
      ),
    ),
  ],
),
),
const SizedBox(height: 12,),

//textbutton
TextButton(
  onPressed: ()
  {
    Navigator.push(context, MaterialPageRoute(builder: (c)=>
LoginScreen()));

  },
  child : Text(

```

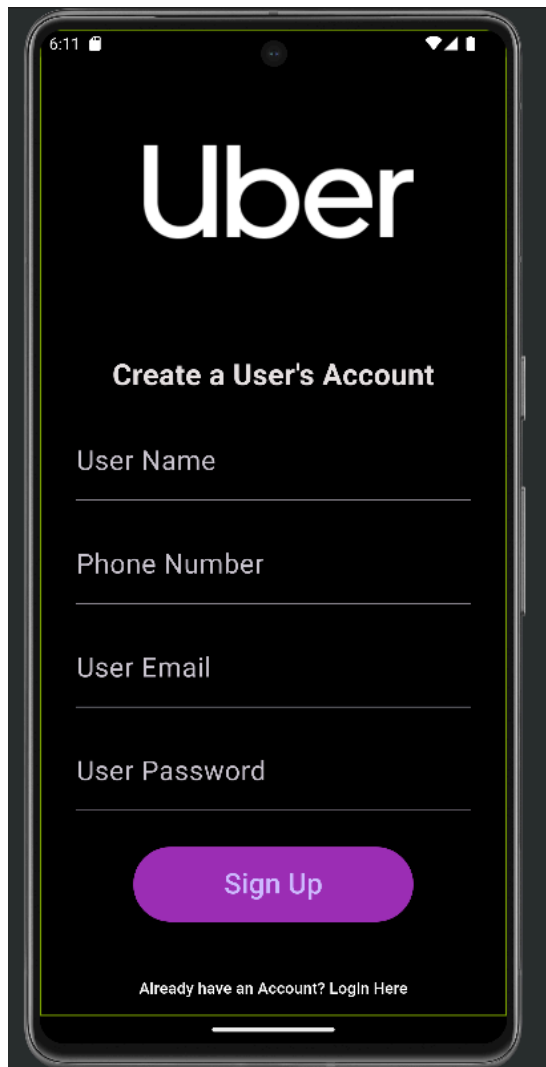


```

        "Already have an Account? Login Here",
        style: TextStyle(
          color: Colors.white,
        ),
      ),
    ),
  ],
),
),
),
),
);
}
}

```

OUTPUT:



CONCLUSION:

Learned about basic widgets used in flutter.

Learned about syntaxes for the same.