Assignment1:

Faculty of Information Technology & Computer Science (FOIT)

University of Central Punjab, Lahore Pakistan

BS CS Program Semester (5th)

Subject: Mobile Application Development Assignment   Marks: 10

Instructions for the Submission:

• Attempt all the questions and provide codes, all codes are required to be provided in Java/Kotlin/XML language.

 • Each question carries equal marks.

• Indent your code. • Comment on your code.

 • Use meaningful variable names. •

Plan your code carefully on a piece of paper before you implement it. • The program's name should be the same as the task name. i.e., the first program. • Copy tasks cause ZERO marks.

• Due Date: 27-11-2024 11:50 pm (Github & Portal)

QUESTION NO#1:

Consider the UI attached below. Your task is to create a login screen using XML. Provide XML code with proper Screenshot which includes layout design and XML code as well

I was use linear layout for design the login app.

My app name: **LOGIN**

I have add logo for app.

Xml file data :

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout

    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/bng"
    android:orientation="vertical"
    android:gravity="center"

    tools:context=".MainActivity">

<androidx.cardview.widget.CardView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="@drawable/custom_edittext"

    app:cardCornerRadius="30dp"
    app:cardElevation="20dp"
    >
```

```xml
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    android:layout_gravity="center_horizontal"
    android:padding="24dp"
    >


    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"

        android:text="@string/login_button_text"
        android:id="@+id/login_text"
        android:textSize="36sp"
        android:textAlignment="center"
        android:textStyle="bold"
        android:textColor="@color/purple"/>
    <EditText
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:id="@+id/username"
        android:drawableStart="@drawable/baseline_account_circle_24"
        android:background="@drawable/custom_edittext"
        android:drawablePadding="8dp"
        android:padding="8dp"
        android:textColor="@color/black"
        android:hint="@string/username_text"
        android:textColorHighlight="@color/cardview_dark_background"
        android:layout_marginTop="40dp"
        android:inputType="text"
        android:autofillHints="username"
        />
    <EditText
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:id="@+id/password"
        android:drawableStart="@drawable/pas"
        android:background="@drawable/custom_edittext"

        android:drawablePadding="9dp"
        android:padding="8dp"
        android:textColor="@color/black"
        android:hint="@string/password_text"
        android:textColorHighlight="@color/cardview_dark_background"
        android:layout_marginTop="20dp"
        android:inputType="textPassword"
        android:autofillHints="password"
```

```xml
        />
        <Button
            android:layout_width="match_parent"
            android:layout_height="60dp"
            android:id="@+id/login_button"
            android:text="@string/login_button_text"
            android:textSize="18sp"
            android:layout_marginTop="30dp"
            android:backgroundTint="@color/purple"
            />




    </LinearLayout>
</androidx.cardview.widget.CardView>


    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

        android:id="@+id/signup"
        android:text="@string/signup_text"
        android:textColor="#7F83A2"
        android:textSize="18sp"
        android:textAlignment="center"
        android:layout_marginTop="20dp"/>
</LinearLayout>
```

Java code:

```java
package com.example.loginpage;

import android.os.Bundle;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {
```

```java
    EditText username;
    EditText password;
    Button loginbutton;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);

        // Initialize views correctly
        username = findViewById(R.id.username);  // Correctly initialize username
        password = findViewById(R.id.password);  // Correctly initialize password
        loginbutton = findViewById(R.id.login_button);  // Correctly initialize login
button

        // Set up the window insets
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) ->
{
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });

        // Set up the button click listener
        loginbutton.setOnClickListener(v -> {
            if (username.getText().toString().equals("user") &&
password.getText().toString().equals("1234")) {
                Toast.makeText(MainActivity.this, "Login successfully",
Toast.LENGTH_SHORT).show();
            } else {
                Toast.makeText(MainActivity.this, "Incorrect password or username",
Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```

Screenshot of layout and code:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout

    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/bng"
    android:orientation="vertical"
    android:gravity="center"

    tools:context=".MainActivity">

<androidx.cardview.widget.CardView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="@drawable/custom_edittext"

    app:cardCornerRadius="30dp"
    app:cardElevation="20dp"

    >

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
```

```xml
<LinearLayout
<androidx.cardview.widget.CardView
    <LinearLayout
        android:layout_gravity="center_horizontal"
        android:padding="24dp"
        >

        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"

            android:text="Login"
            android:id="@+id/login_text"
            android:textSize="36sp"
            android:textAlignment="center"
            android:textStyle="bold"
            android:textColor="@color/purple"/>
        <EditText
            android:layout_width="match_parent"
            android:layout_height="50dp"
            android:id="@+id/username"
            android:drawableStart="@drawable/baseline_account_circl
            android:background="@drawable/custom_edittext"
            android:drawablePadding="8dp"
            android:padding="8dp"
            android:textColor="@color/black"
            android:hint="UserName"
            android:textColorHighlight="@color/cardview_dark_backgr
```