Practical 28

1. Write a Program to perform basic validation in login form. Also count number of unsuccessful attempts and allow maximum 5 attempts.

Xml Code :

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:text="LOG IN"
        android:textColor="@color/black"
        android:textSize="40dp"
        android:textStyle="bold" />
    <TextView
        android:id="@+id/tv1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="30dp"
        android:layout_marginTop="125dp"
        android:text="Username: "
        android:textColor="@color/black"
        android:textSize="25dp"
        android:textStyle="bold" />
    <EditText
        android:id="@+id/uname"
        android:layout_width="350dp"
        android:layout_height="wrap_content"
        android:layout_below="@+id/tv1"
        android:layout_alignLeft="@+id/tv1"
        android:layout_marginTop="20dp" />
    <TextView
        android:id="@+id/tv2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/uname"
        android:layout_alignLeft="@+id/tv1"
```

```xml
        android:layout_marginTop="50dp"
        android:text="Password: "
        android:textColor="@color/black"
        android:textSize="25dp"
        android:textStyle="bold" />
    <EditText
        android:layout_width="350dp"
        android:layout_height="wrap_content"
        android:layout_below="@+id/tv2"
        android:layout_alignLeft="@+id/tv1"
        android:layout_marginTop="20dp"
        android:id="@+id/pass"/>
    <Button
        android:id="@+id/login"
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="100dp"
        android:backgroundTint="@color/black"
        android:padding="15dp"
        android:text="login"
        android:textSize="25dp"
        android:textStyle="bold"
        />
    <TextView
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:textColor="#E74C3C"
        android:text="Attempts left: 5"
        android:layout_marginBottom="20dp"
        android:layout_marginLeft="20dp"
        android:layout_alignParentBottom="true"
        android:layout_alignParentLeft="true"
        android:fontFamily="sans-serif-black"
        android:id="@+id/tv4"
        android:textSize="20dp"/>
</RelativeLayout>
```

Java Code :

```java
package com.example.exp28;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    EditText uname,pass;
    TextView tv4;
    Button login;
    Integer count=0;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        uname=findViewById(R.id.uname);
        pass=findViewById(R.id.pass);
        tv4=findViewById(R.id.tv4);
        login=findViewById(R.id.login);

        login.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                LayoutInflater inflater = getLayoutInflater();
                View layout = inflater.inflate(R.layout.activity_custom,(ViewGroup)
            findViewById(R.id.custom_toast_layout));
                TextView toastTextView = (TextView) layout.findViewById(R.id.tv1);
                ImageView toastImageView = (ImageView) layout.findViewById(R.id.custom_img);
                if(count<5)
                {

                    if(uname.getText().toString().isEmpty()||pass.getText().toString().isEmpty())
                    {
                        count++;
                        toastTextView.setText("Login Failed!!!\nPlease enter all the details!!");
                        toastImageView.setImageResource(R.drawable.img);
                        Toast toast = new Toast(getApplicationContext());
                        toast.setDuration(Toast.LENGTH_SHORT);
                        toast.setView(layout);
                        toast.show();
                    }
                    else if(pass.getText().length()<8){
                        count++;
                        toastTextView.setText("Login Failed!!!\nPassword must be minimum 8 charcters");
                        toastImageView.setImageResource(R.drawable.img);
                        Toast toast = new Toast(getApplicationContext());
                        toast.setDuration(Toast.LENGTH_SHORT);
                        toast.setView(layout);
                        toast.show();
                    }
                else if(uname.getText().toString().equals("Aditya")&&pass.getText().toString().equals("abcde@123"))
                    {
```

```
                    toastTextView.setText("Login Successfull!!");
                    toastImageView.setImageResource(R.drawable.img_1);
                    Toast toast = new Toast(getApplicationContext());
                    toast.setDuration(Toast.LENGTH_SHORT);
                    toast.setView(layout);
                    toast.show();
                }
            else{
                count++;
                toastTextView.setText("Login Failed!!!\nInvalid Credentials!!!");
                toastImageView.setImageResource(R.drawable.img);
                Toast toast = new Toast(getApplicationContext());
                toast.setDuration(Toast.LENGTH_SHORT);
                toast.setView(layout);
                toast.show();
                }
            tv4.setText("Attempts left: " + (5-count));
        }
        else
        {
            toastTextView.setText("5 attempts completed!!");
            toastImageView.setImageResource(R.drawable.img_2);
            Toast toast = new Toast(getApplicationContext());
            toast.setDuration(Toast.LENGTH_SHORT);
            toast.setView(layout);
            toast.show();
        }
      }
    });

  }
}
```

Output:

exp28

LOG IN

Username:

Password:

LOGIN

Attempts left: 3

---

exp28

LOG IN

Username:

Aditya

Password:

Aditya1233331

Attempts Login Failed!!! Invalid Credentials!!!

---

exp28

LOG IN

Username:

Aditya

Password:

abcde@123

Attempts Login Successfull!!

---

exp28

LOG IN

Username:

Password:

Attempt SORRY 5 attempts completed!!