**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 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"

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 :

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();

}

}

});

}

}

Graphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedOutput:

Graphical user interface, application

Description automatically generatedA screenshot of a computer

Description automatically generated with medium confidenceGraphical user interface, application

Description automatically generated