PRACTICAL 5

**AIM**: Create a login application with following features: 1. Successful Login message in TextView with Green background if Username & password is correct 2. Failure message in TextView with Red background if Username or password is incorrect. 3. Disable Login Button after three wrong login attempts. 4. Close application if user selects Cancel Button.

**THEORY:**

**TextView**: In Android, TextView displays text to the user and optionally allows them to edit it programmatically. TextView is a complete text editor, however basic class is configured to not allow editing but we can edit it. View is the parent class of TextView. Being a subclass of view the text view component can be used in your app’s GUI inside a ViewGroup, or as the content view of an activity. Attributes: android:id, android:capitalize, android:cursorVisible, android:editable, android:gravity etc.

**EditText**: In Android, EditText is a standard entry widget in android apps. It is an overlay over TextView that configures itself to be editable. EditText is a subclass of TextView with text editing operations. We often use EditText in our applications in order to provide an input or text field, especially in forms. The most simple example of EditText is Login or Sign-in form. Attributes: android:id, android:capitalize, android:cursorVisible, android:editable, android:gravity etc.

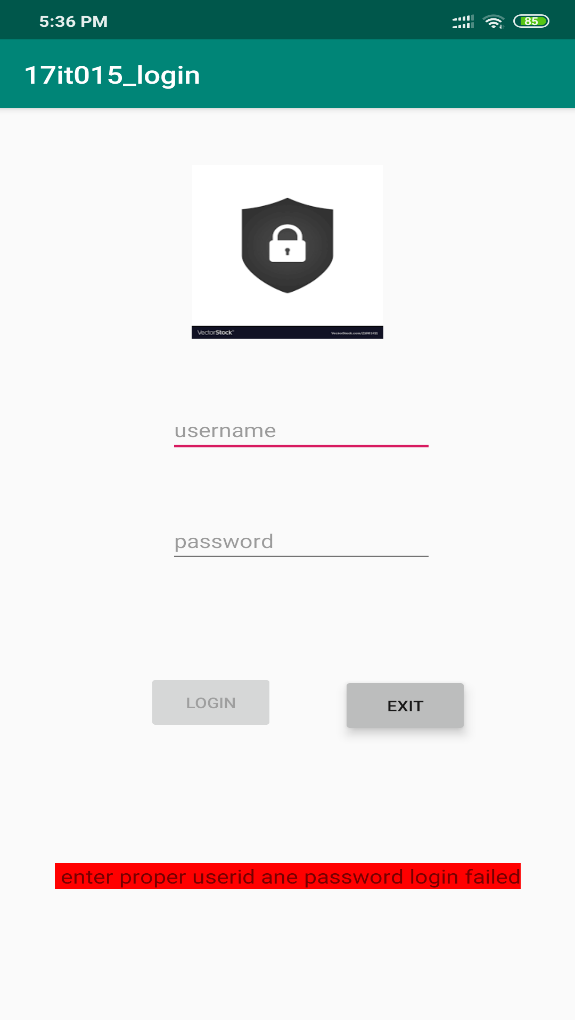
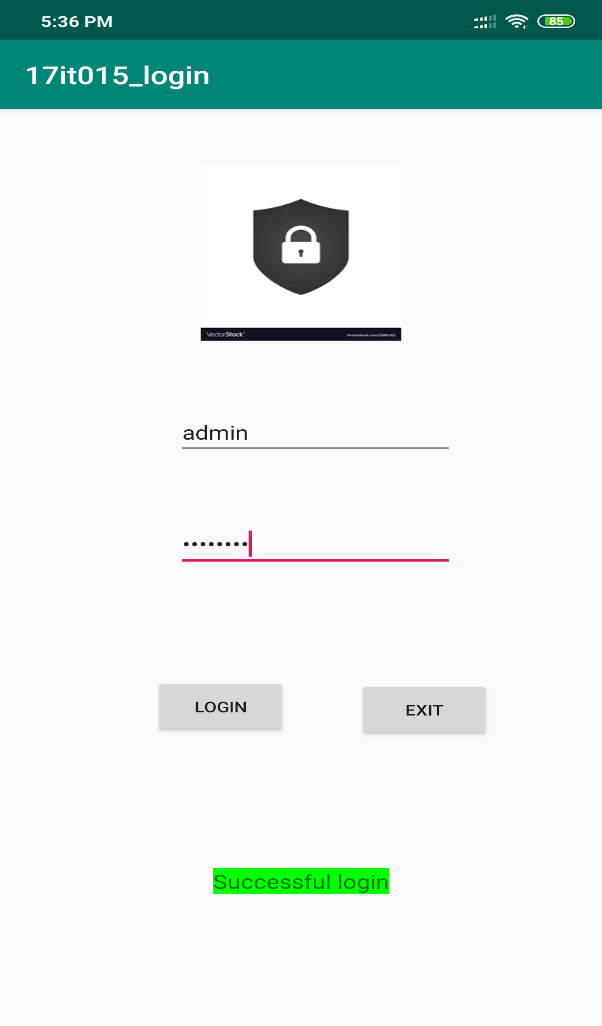
**Button:** In Android, Button represents a push button. A Push buttons can be clicked or pressed by the user to perform an action. There are different types of buttons used in android such as CompoundButton, ToggleButton, RadioButton. Button is a subclass of TextView class and compound button is the subclass of Button class.

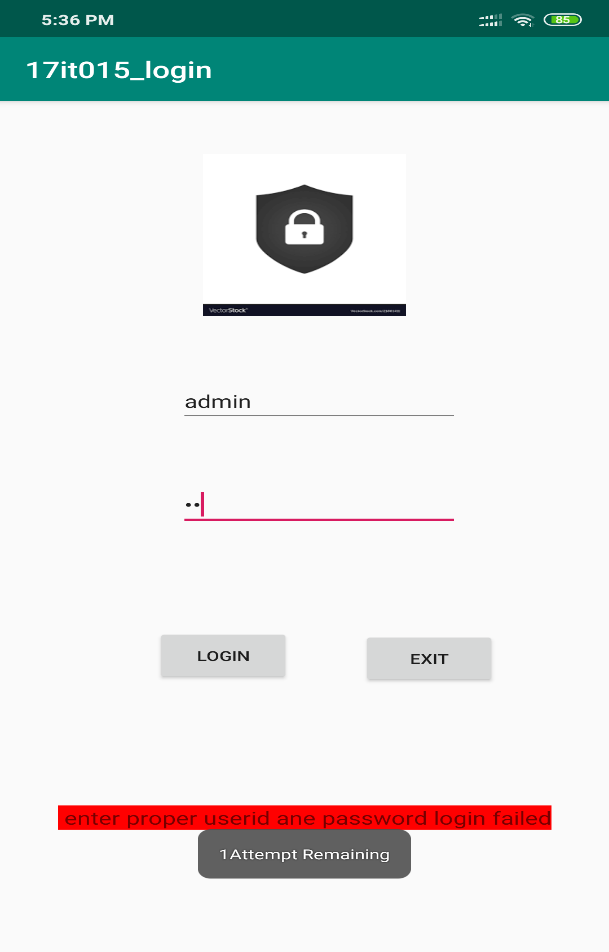
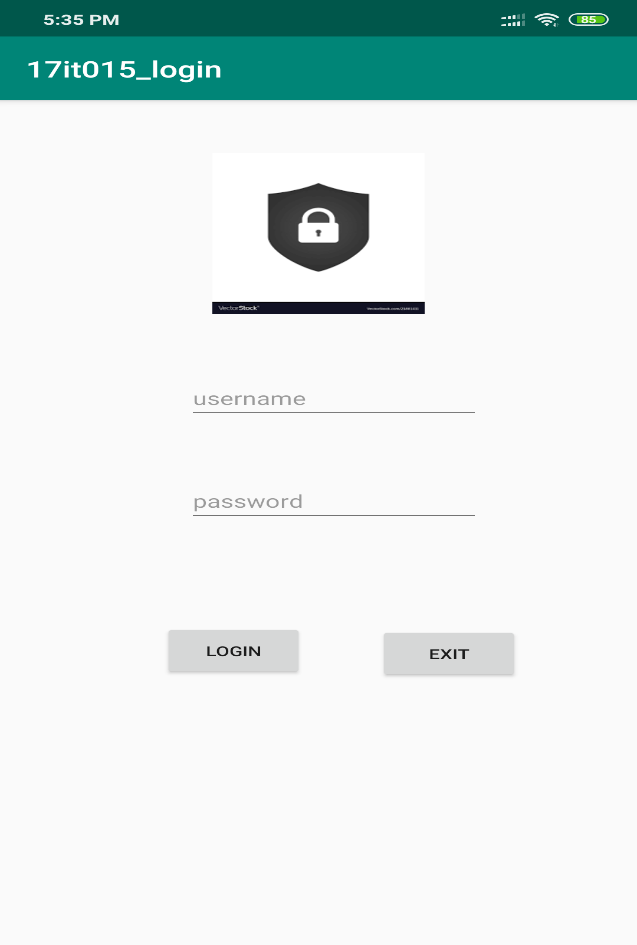
**Toast Message:** A toast provides simple feedback about an operation in a small popup. It only fills the amount of space required for the message and the current activity remains visible and interactive. Toasts automatically disappear after a timeout. The android.widget.Toast class is the subclass of java.lang.Object class.

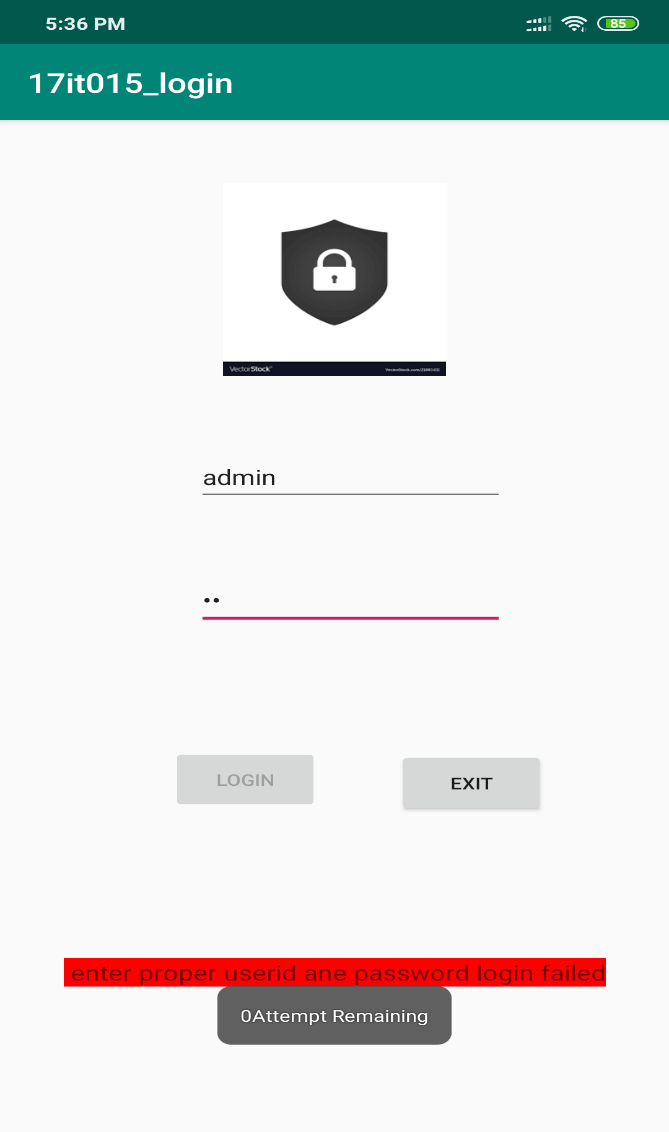
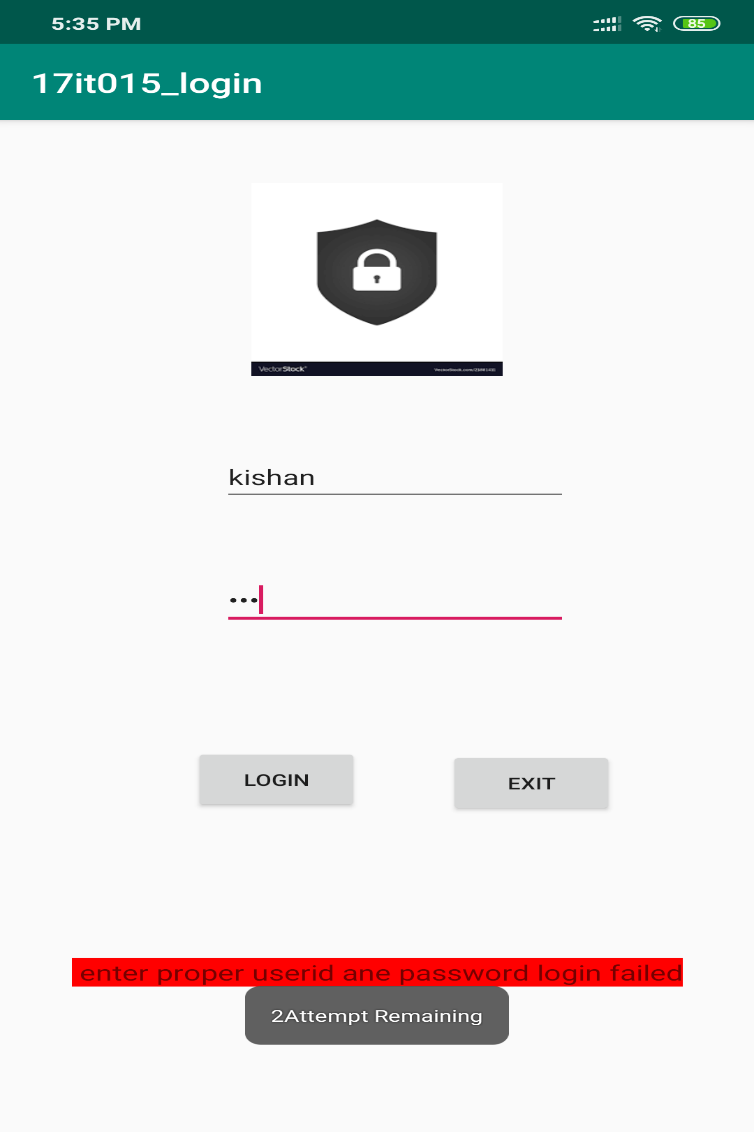
CODE:

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| --- |
| // MainActivity.java  package com.example.a17it015\_login;  import androidx.appcompat.app.AppCompatActivity;  import android.graphics.Color;  import android.os.AsyncTask;  import android.os.Bundle;  import android.view.View;  import android.widget.Button;  import android.widget.EditText;  import android.widget.TextView;  import android.widget.Toast;  public class MainActivity extends AppCompatActivity {  EditText user1,pass,left;  Button b1,b2;  TextView t1;  int count=3;  @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.activity\_main);  user1=findViewById(R.id.editText);  pass=findViewById(R.id.editText3);  t1=findViewById(R.id.result);  b1=findViewById(R.id.button);  b2=findViewById(R.id.button2);  b1.setOnClickListener(new View.OnClickListener() {  @Override  public void onClick(View v) {  String user = user1.getText().toString();  String pass1=pass.getText().toString();  if(user.equals("admin") && pass1.equals("password") ){  t1.setText("Successful login");  t1.setBackgroundColor(Color.GREEN);  }  else {  count--;  t1.setText(" enter proper userid ane password login failed");  t1.setBackgroundColor(Color.RED);  String cnt=String.valueOf(count);  Toast.makeText(MainActivity.this,cnt+"Attempt Remaining",Toast.LENGTH\_LONG).show();  if(count==0)  {  b1.setEnabled(false);  }  }  }  });  b2.setOnClickListener(new View.OnClickListener() {  @Override  public void onClick(View v) {  finish();  System.exit(0);  }  });  }  }  // activity\_main.xml  <?xml version="1.0" encoding="utf-8"?>  <androidx.constraintlayout.widget.ConstraintLayout 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"  android:background="#00353131"  tools:context=".MainActivity">  <EditText  android:id="@+id/editText"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:ems="10"  android:hint="username"  android:inputType="textPersonName"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.545"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.344" />  <EditText  android:id="@+id/editText3"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:ems="10"  android:hint="password"  android:inputType="textPassword"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.545"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/editText"  app:layout\_constraintVertical\_bias="0.116" />  <Button  android:id="@+id/button"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:layout\_marginTop="80dp"  android:layout\_marginEnd="76dp"  android:layout\_marginRight="76dp"  android:text="login"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.437"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/editText3"  app:layout\_constraintVertical\_bias="0.026" />  <ImageView  android:id="@+id/imageView5"  android:layout\_width="181dp"  android:layout\_height="141dp"  app:layout\_constraintBottom\_toTopOf="@+id/editText"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent"  app:layout\_constraintVertical\_bias="0.463"  app:srcCompat="@drawable/lock" />  <TextView  android:id="@+id/result"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:textSize="18sp"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/button" />  <Button  android:id="@+id/button2"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:text="exit"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.764"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/editText3"  app:layout\_constraintVertical\_bias="0.277" />  </androidx.constraintlayout.widget.ConstraintLayout>  // AndroidManifest.xml  <?xml version="1.0" encoding="utf-8"?>  <manifest xmlns:android="http://schemas.android.com/apk/res/android"  package="com.example.a17it015\_login">  <application  android:allowBackup="true"  android:icon="@mipmap/ic\_launcher"  android:label="@string/app\_name"  android:roundIcon="@mipmap/ic\_launcher\_round"  android:supportsRtl="true"  android:theme="@style/AppTheme">  <activity android:name=".MainActivity">  <intent-filter>  <action android:name="android.intent.action.MAIN" />  <category android:name="android.intent.category.LAUNCHER" />  </intent-filter>  </activity>  </application>  </manifest> |

OUTPUT:

LATEST APPLICATIONS:

Instagram, Facebook, Helo, Amazon, Flipkart, etc.

LEARNING OUTCOME:

In this practical we learnt how to create button ,textview , toast message, text field and also how to put an image on login page .I also learnt validation.