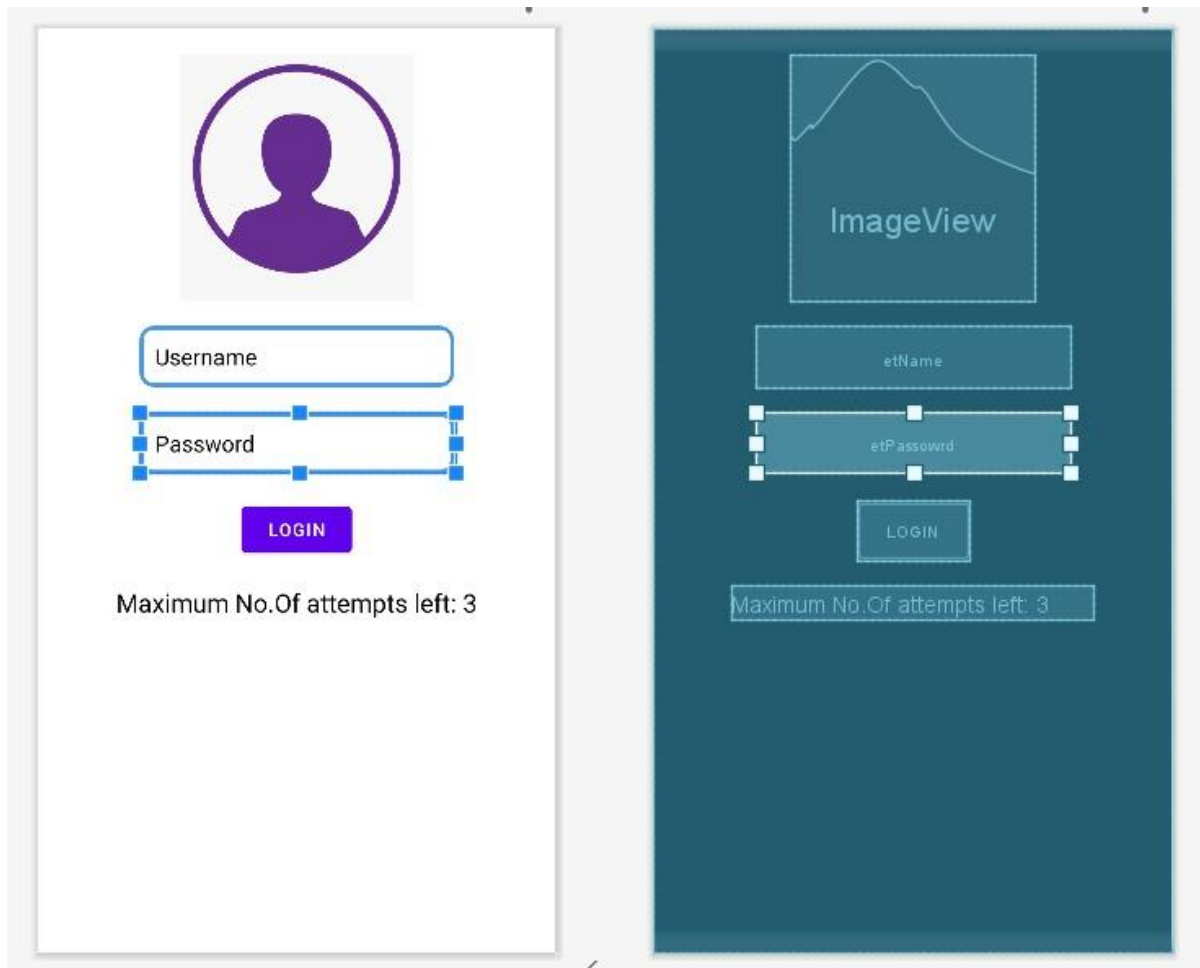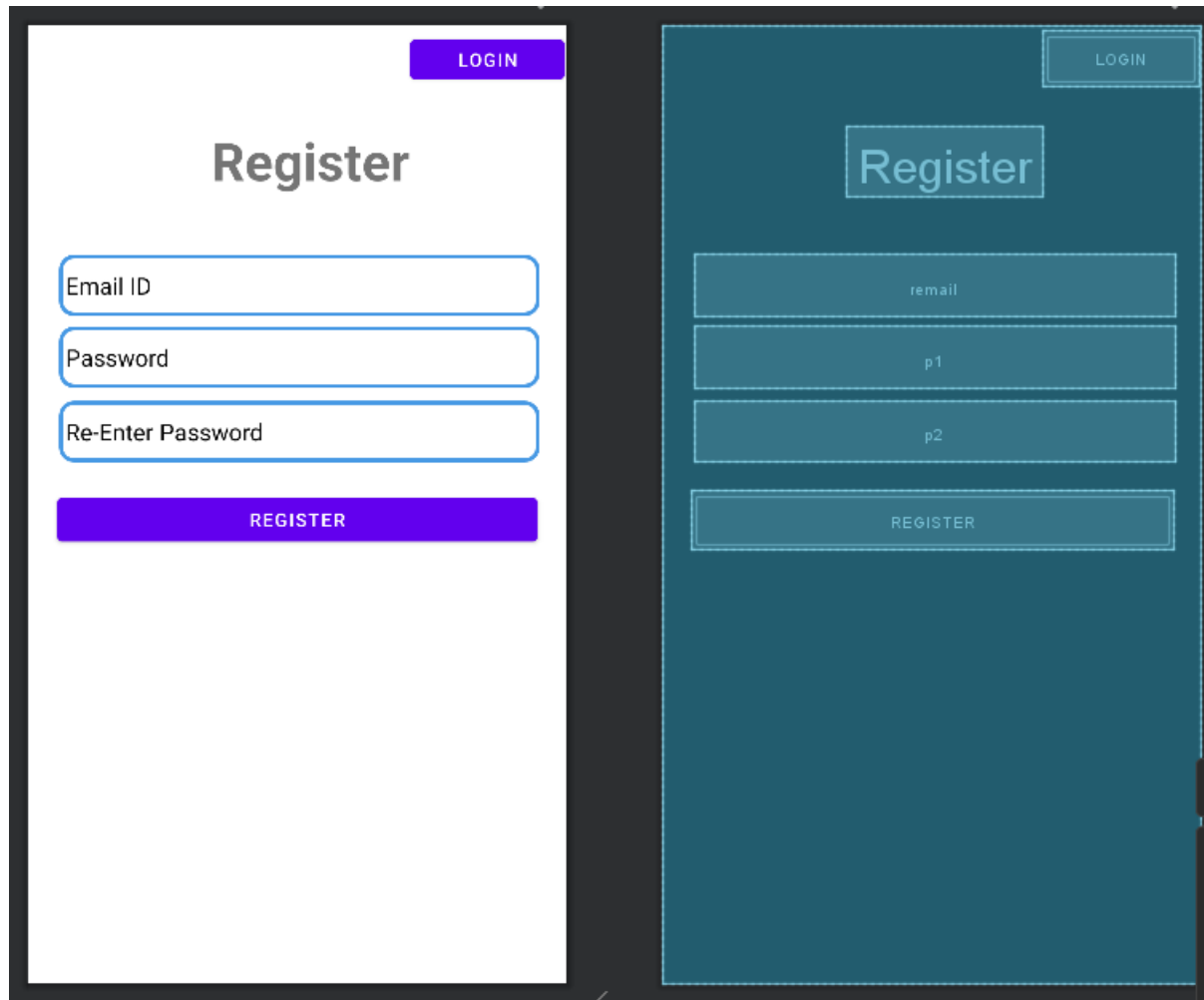Date: 10/03/2022
Lab Session No.: 04

Aim:

Develop an android application to implement login and registration screen

Software's /IDE Tools:
Android Development Kit / Android Studio

Application User interface design:

Application Programming Interface:

API / PACKAGES	CLASSES / INTERFACES	METHODS	DESCRIPTION
import androidx.appcompat.app.AppCompatActivity;	AppCompatActivity	protected void onCreate(Bundle savedInstanceState)	onCreate(Bundle) is where you initialize your activity. When Activity is started and application is not loaded, then both onCreate() methods will be called.
import android.widget.EditText;	EditText	getText()	Determines the minimum type that getText() will return. If set, specifies that this TextView has a textual input method and should automatically capitalize what the user types.

Code/Implementation:

// Develop an android application to demonstrate the Implicit and Explicit Intent.
// Project Name : ShareMyApp
/*

Lab Session No.	: 04
Author	: Tellakula Avinash
Date	: 10/03/2022
Roll Number	: 198W1A05C0
Description	: login and registration page
Softwares required	:Android Studio
Topics Covered	:Implement login and registration page

*/

LOGIN PAGE:

main_activity.java

```java
package com.avinash.loginform;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
    EditText name,password;
    Button login;
    TextView info;
    int counter=3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name=(EditText)findViewById(R.id.etName);
        password=(EditText)findViewById(R.id.etPassowrd);
        info=(TextView)findViewById(R.id.attempts);
        login=(Button)findViewById(R.id.login);
        info.setText("No. of Remaining Attempts : 3");
        login.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                validate(name.getText().toString(),password.getText().toString());
            }
```

```java
            });
        }
    public void validate(String name, String password) {
        if(name.equals("Admin") && password.equals("123#")){
            Intent intent=new Intent(MainActivity.this,secondActivity.class);
            startActivity(intent);
        }
        else{
            counter--;
            info.setText("No. of Remaining Attempts : "+counter);
            if(counter==0){
                login.setEnabled(false);
            }
        }
    }
}
```

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/white"
    android:orientation="vertical"
    android:layout_gravity="center"
    tools:context=".MainActivity">
    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="194dp"
        android:layout_height="195dp"
        android:layout_gravity="center"
        android:layout_marginTop="20dp"
        app:srcCompat="@drawable/img" />
    <EditText
        android:id="@+id/etName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
```

```
                    android:width="250dp"
                    android:height="40dp"
                    android:hint="Username"
                    android:textColorHint="@color/black"
                    android:textColor="@color/black"
                    android:inputType="text"
                    android:minWidth="200dp"
                    android:layout_marginTop="20dp"
                    android:background="@drawable/edit_text_background1"
                    android:padding="12dp"/>

            <EditText
                    android:id="@+id/etPassowrd"
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:layout_gravity="center"
                    android:width="250dp"
                    android:height="40dp"
                    android:textColor="@color/black"
                    android:textColorHint="@color/black"
                    android:hint="Password"
                    android:inputType="textPassword"
                    android:minWidth="200dp"
                    android:layout_marginTop="20dp"
                    android:background="@drawable/edit_text_background1"
                    android:padding="12dp"/>

            <Button
                    android:id="@+id/login"
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:text="Login"
                    android:layout_gravity="center"
                    android:layout_marginTop="20dp"
                    tools:layout_editor_absoluteX="149dp"
                    tools:layout_editor_absoluteY="354dp" />

            <TextView
                    android:id="@+id/attempts"
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:text="Maximum No.Of attempts left: 3"
```

```
        android:textSize="20dp"
        android:layout_marginTop="20dp"
        android:layout_gravity="center"
        android:textColor="@color/black"
        android:autoSizeMaxTextSize="30sp"
        tools:layout_editor_absoluteX="55dp"
        tools:layout_editor_absoluteY="444dp" />
</LinearLayout>
```

secondActivity.java

```
package com.avinash.loginform;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class secondActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_second);
    }
}
```

activity_second.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".secondActivity">

    <TextView
        android:id="@+id/attempts"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:layout_marginTop="20dp"
```

```
        android:autoSizeMaxTextSize="30sp"
        android:paddingLeft="135dp"
        android:text="Welcome"
        android:textColor="@color/black"
        android:textSize="40dp"
        tools:layout_editor_absoluteX="55dp"
        tools:layout_editor_absoluteY="444dp" />
</LinearLayout>
```

edit_text_background1.xml

```
<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

    <stroke android:width="3dp"
        android:color="#4799E4"/>
    <corners android:radius="10dp"/>
    <solid android:color="@color/white"/>
</shape>
```

REGISTRATION PAGE:
MainActivity.java

```java
package com.avinash.register;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.text.Editable;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        String eo="admin@gmail.com";
        String po="admin";
        EditText email=(EditText)findViewById(R.id.email);
        EditText pass=(EditText) findViewById(R.id.pass);
```

```java
            Button b=(Button)findViewById(R.id.login);
            Button reg=(Button) findViewById(R.id.reg);
            TextView t=(TextView) findViewById(R.id.attempts);
            final int[] n = {3};
            b.setOnClickListener(new View.OnClickListener() {

                @Override
                public void onClick(View v) {
                    Editable e=email.getText();
                    Editable p=pass.getText();
                    if(!String.valueOf(p).equals(po))
                    {
                        n[0]--;
                        if(n[0]==0)
                        {
                            b.setVisibility(View.GONE);
                        }
                        t.setText(String.valueOf(n[0])+" More attempts left...");
                        t.setVisibility(View.VISIBLE);
                    }

                    else
                    {
                        Intent intent=new
Intent(MainActivity.this,SecondActivity.class);
                        startActivity(intent);

                    }

                }
            });
            reg.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    Intent regent=new Intent(MainActivity.this,
RegisterActivity.class);
                    startActivity(regent);
                }
            });


    }

}
```

activity_main.xml:

```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"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/email"
        android:layout_width="351dp"
```

```xml
        android:layout_height="44dp"
        android:background="@drawable/edit_text_background_1"
        android:ems="10"
        android:hint="E-mail ID"
        android:textColorHint="@color/black"
        android:textColor="@color/black"
        android:inputType="textEmailAddress"
        android:padding="10dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.427"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.289" />

    <EditText
        android:id="@+id/pass"
        android:textColorHint="@color/black"
        android:textColor="@color/black"
        android:layout_width="351dp"
        android:layout_height="44dp"
        android:background="@drawable/edit_text_background_1"
        android:ems="10"
        android:hint="Password"
        android:inputType="textPassword"
        android:padding="10dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.388"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/email"
        app:layout_constraintVertical_bias="0.029" />

    <TextView
        android:id="@+id/Label"
        android:layout_width="133dp"
        android:layout_height="75dp"
        android:text="Login"
        android:textSize="48sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.042" />

    <Button
        android:id="@+id/login"
        android:layout_width="351dp"
        android:layout_height="44dp"
        android:text="Login"
        android:visibility="visible"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.371"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/pass"
        app:layout_constraintVertical_bias="0.038" />

    <TextView
```

```xml
                android:id="@+id/attempts"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="3 More Attempts"
                android:textSize="20dp"
                android:visibility="invisible"
                app:layout_constraintBottom_toBottomOf="parent"
                app:layout_constraintEnd_toEndOf="parent"
                app:layout_constraintHorizontal_bias="0.436"
                app:layout_constraintStart_toStartOf="parent"
                app:layout_constraintTop_toBottomOf="@+id/login"
                app:layout_constraintVertical_bias="0.073" />

        <Button
                android:id="@+id/reg"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Register"
                app:layout_constraintBottom_toTopOf="@+id/email"
                app:layout_constraintEnd_toEndOf="parent"
                app:layout_constraintHorizontal_bias="0.901"
                app:layout_constraintStart_toEndOf="@+id/Label"
                app:layout_constraintTop_toTopOf="parent"
                app:layout_constraintVertical_bias="0.026" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

SecondActivity.java:

```java
package com.avinash.register;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class SecondActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_second);
    }
}
```

activity_second.xml:

```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"
    tools:context=".SecondActivity">
    <TextView
        android:id="@+id/name"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Welcome User..."
        android:textSize="34sp"
```

```xml
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

RegisterActivity.java:

```java
package com.avinash.register;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class RegisterActivity extends AppCompatActivity {

    EditText email,p1,p2;
    Button reg,log;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_register);

        email=(EditText) findViewById(R.id.email);
        p1=(EditText) findViewById(R.id.p1);
        p2=(EditText) findViewById(R.id.p2);
        reg=(Button) findViewById(R.id.register);
        log=(Button) findViewById(R.id.rlogin);
        reg.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String pass1,pass2;
                pass1=String.valueOf(p1.getText());
                pass2=String.valueOf(p2.getText());

                if(pass1.equals(pass2))
                {
                    Intent login=new
Intent(RegisterActivity.this,SecondActivity.class);
                    System.out.println("Matched");
                    startActivity(login);
                }
                else
                {
                    Toast.makeText(getApplicationContext(),"Password
Mismatch...",Toast.LENGTH_LONG).show();
                    System.out.println("Not Matched");
                }
            }
        });

        log.setOnClickListener(new View.OnClickListener() {
            @Override
```

```java
        public void onClick(View v) {
            Intent login=new
Intent(RegisterActivity.this,MainActivity.class);
            System.out.println("Login Page|RegisterActivity");
            startActivity(login);
        }
    });
}


}
```

activity_register.xml:

```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"
    tools:context=".RegisterActivity">
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Register"
        android:textAlignment="center"
        android:textSize="40dp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.538"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.113" />

    <EditText
        android:id="@+id/remail"
        android:layout_width="367dp"
        android:layout_height="47dp"
        android:ems="10"
        android:textColorHint="@color/black"
        android:textColor="@color/black"
        android:hint="Email ID"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.527"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.256"
        android:background="@drawable/edit_text_background_1"
        android:paddingLeft="5dp"/>

    <EditText
        android:id="@+id/p1"
        android:layout_width="367dp"
        android:layout_height="47dp"
```

```xml
        android:ems="10"
        android:hint="Password"
        android:inputType="textPassword"
        android:textColorHint="@color/black"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.527"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/remail"
        app:layout_constraintVertical_bias="0.017"
        android:textColor="@color/black"
        android:background="@drawable/edit_text_background_1"
        android:paddingLeft="5dp"/>

    <EditText
        android:id="@+id/p2"
        android:layout_width="367dp"
        android:layout_height="47dp"
        android:ems="10"
        android:textColorHint="@color/black"
        android:hint="Re-Enter Password"
        android:inputType="textPassword"
        android:textColor="@color/black"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.527"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/p1"
        app:layout_constraintVertical_bias="0.024"
        android:background="@drawable/edit_text_background_1"
        android:paddingLeft="5dp"/>

    <Button
        android:id="@+id/register"
        android:layout_width="367dp"
        android:layout_height="45dp"
        android:text="register"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/p2"
        app:layout_constraintVertical_bias="0.061" />

    <Button
        android:id="@+id/rlogin"
        android:layout_width="118dp"
        android:layout_height="42dp"
        android:text="login"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.993"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.008" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Output: LOGIN FORM
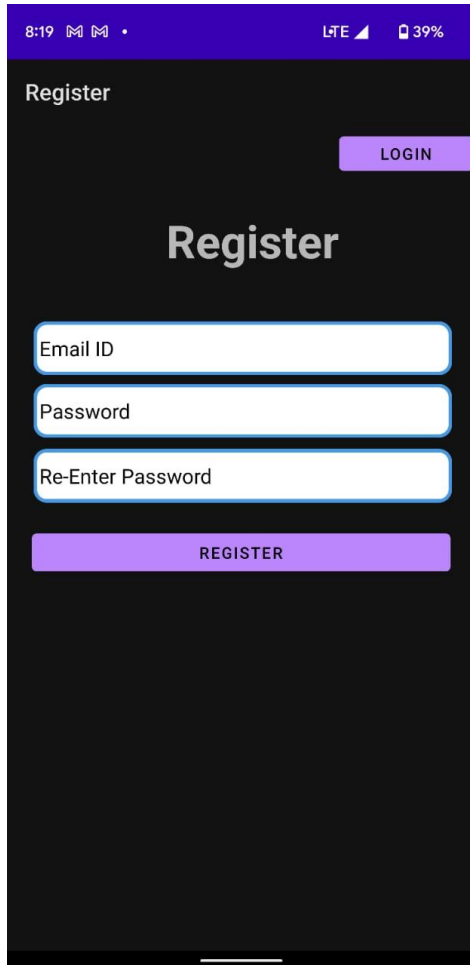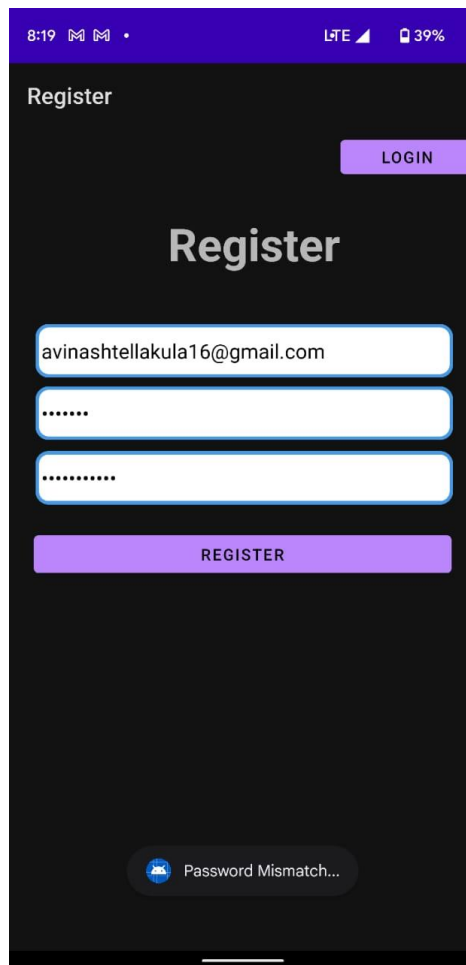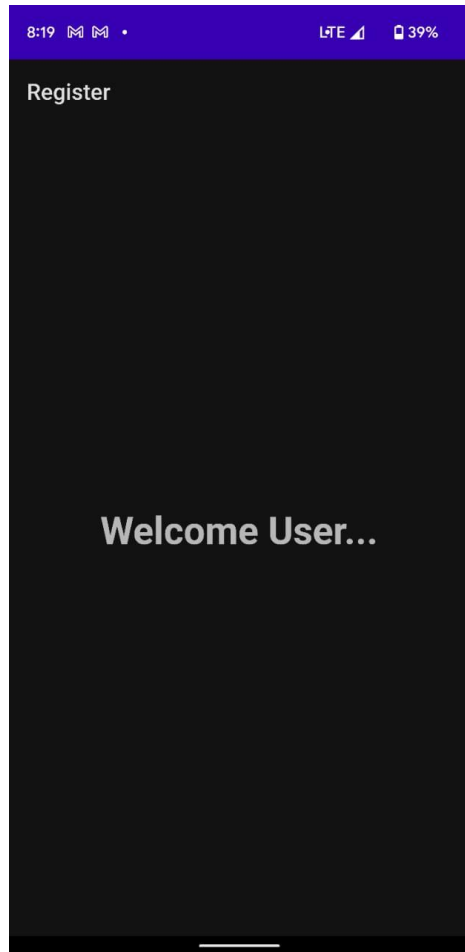
REGISTRATION FORM:

Result:

Demonstration of the Login and Registration were done successfully.