

PART - A

LAB - 03 LOGIN-SIGN UP APP

activity_main.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">

    <EditText
        android:id="@+id/txt_password"
        android:layout_width="265dp"
        android:layout_height="61dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="74dp"
        android:layout_marginBottom="301dp"
        android:ems="10"
        android:hint="Password"
        android:inputType="textPassword" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="142dp"
        android:layout_marginBottom="494dp"
        android:text="Sign Up"
        android:textAlignment="center"
        android:textAllCaps="true"
        android:textColor="#21A7E4"
        android:textSize="34sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/txt_username"
        android:layout_width="265dp"
        android:layout_height="61dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
```

```
android:layout_marginEnd="74dp"
android:layout_marginBottom="386dp"
android:ems="10"
android:hint="Email/Username"
android:inputType="textEmailAddress" />
```

```
<Button
    android:id="@+id/btn_signup"
    android:layout_width="150dp"
    android:layout_height="59dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="131dp"
    android:layout_marginBottom="212dp"
    android:textSize="20sp"
    android:text="Sign Up"
    android:onClick="SignUpEvent"
/>
```

```
</RelativeLayout>
```

login_activity.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=".LoginActivity">

    <EditText
        android:id="@+id/login_password"
        android:layout_width="265dp"
        android:layout_height="61dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="74dp"
        android:layout_marginBottom="301dp"
        android:ems="10"
        android:hint="Password"
        android:inputType="textPassword" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="158dp"
        android:layout_marginBottom="494dp"
        android:text="Login"
```

```
android:textAlignment="center"
android:textAllCaps="true"
android:textColor="#FF5722"
android:textSize="34sp"
android:textStyle="bold"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

```
<EditText
    android:id="@+id/login_username"
    android:layout_width="265dp"
    android:layout_height="61dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="74dp"
    android:layout_marginBottom="386dp"
    android:ems="10"
    android:hint="Email/Username"
    android:inputType="textEmailAddress" />
```

```
<Button
    android:id="@+id/btn_login"
    android:layout_width="150dp"
    android:layout_height="59dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="131dp"
    android:layout_marginBottom="212dp"
    android:text="@string/login"
    android:textSize="20sp"
    android:onClick="LoginEvent"
/>
```

</RelativeLayout>

activity_login_successful.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_alignParentEnd="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="49dp"
android:layout_marginBottom="338dp"
android:text="Login Successful"
android:textAlignment="center"
android:textAllCaps="true"
android:textColor="#03A9F4"
android:textSize="34sp"
android:textStyle="bold"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

</RelativeLayout>

MainActivity.java

```
package com.loginsignupapp;

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;

import java.util.regex.Pattern;

public class MainActivity extends AppCompatActivity {
    EditText username, password;
    Button btn;
    int counter = 3;

    Pattern lowercase = Pattern.compile("^[a-z].*$");
    Pattern uppercase = Pattern.compile("^[A-Z].*$");
    Pattern numbers = Pattern.compile("^[0-9].*$");
    Pattern specialChar = Pattern.compile("^[^a-zA-Z0-9].*$");

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

        username = findViewById(R.id.txt_username);
        password = findViewById(R.id.txt_password);
    }
}
```

```

public void SignUpEvent(View view) {
    String uName = username.getText().toString();
    String pwd = password.getText().toString();

    if (isValidPassword(pwd)){
        Toast.makeText(MainActivity.this, "Invalid Password", Toast.LENGTH_LONG).show();
        return;
    }
    Intent it = new Intent(MainActivity.this, LoginActivity.class);
    it.putExtra("userName", uName);
    it.putExtra("pwd", pwd);
    startActivity(it);
}

private boolean isValidPassword(String pwd) {
    if (pwd.length() < 8)
        return false;
    if (!lowercase.matcher(pwd).matches())
        return false;
    if (!uppercase.matcher(pwd).matches())
        return false;
    if (!numbers.matcher(pwd).matches())
        return false;
    if (!specialChar.matcher(pwd).matches())
        return false;
    return true;
}
}

```

LoginActivity.java

```

package com.loginsignupapp;

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 LoginActivity extends AppCompatActivity {

    EditText userName, password;
    Button btn;
    int counter = 3;

    @Override
    protected void onCreate(Bundle savedInstanceState) {

```

```

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);

        userName = findViewById(R.id.login_username);
        password = findViewById(R.id.login_password);
        btn = findViewById(R.id.btn_login);
    }

    public void LoginEvent(View view) {
        String uName = userName.getText().toString();
        String pwd = password.getText().toString();
        String regUserName = getIntent().getStringExtra("userName");
        String regPwd = getIntent().getStringExtra("pwd");
        if (regUserName.equals(uName) && regPwd.equals(pwd)){
            Intent it = new Intent(LoginActivity.this, LoginSuccessful.class);
            startActivity(it);
        } else {
            Toast.makeText(LoginActivity.this, "Invalid Credentials",
Toast.LENGTH_SHORT).show();
            counter--;
        }
        if (counter == 0) {
            Toast.makeText(getBaseContext(), "Failed Login Attempts",
Toast.LENGTH_SHORT).show();
            btn.setEnabled(false);
        }
    }
}

```

LoginSuccessful.java (NO CHANGE)

```

package com.loginsignupapp;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class LoginSuccessful extends AppCompatActivity {

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

```