

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">

    <TextView
        android:id="@+id/textView"
        android:layout_width="307dp"
        android:layout_height="56dp"
        android:layout_alignParentTop="true"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_centerHorizontal="true"
        android:layout_gravity="center_horizontal"
        android:layout_marginTop="32dp"
        android:layout_marginEnd="59dp"
        android:layout_marginRight="59dp"
        android:text="SIGN UP"
        android:textAlignment="center"
        android:textColor="#1D2CB3"
        android:textSize="30dp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.607"
        app:layout_constraintStart_toStartOf="parent"
        tools:layout_editor_absoluteY="51dp" />

    <EditText
        android:id="@+id/txt_username"
        android:layout_width="290dp"
        android:layout_height="57dp"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="133dp"
        android:ems="10"
        android:hint="Enter UserName"
        android:textSize="25sp"
        android:inputType="textEmailAddress"
        tools:layout_editor_absoluteX="62dp"
        tools:layout_editor_absoluteY="178dp" />

    <EditText
        android:id="@+id/txt_password"
        android:layout_width="290dp"
        android:layout_height="47dp"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="54dp"
```

```

        android:layout_marginTop="225dp"
        android:ems="10"
        android:hint="Password"
        android:textSize="25sp"
        android:inputType="textPassword"
        tools:layout_editor_absoluteX="62dp"
        tools:layout_editor_absoluteY="249dp"
        android:layout_marginLeft="54dp"
        android:layout_alignParentLeft="true" />

```

```

<Button
    android:id="@+id/btn_signup"
    android:layout_width="187dp"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentLeft="true"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="109dp"
    android:layout_marginLeft="109dp"
    android:layout_marginTop="306dp"
    android:text="SIGN UP"
    android:onClick="signUpEvent"
    android:textSize="25sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.343"
    app:layout_constraintStart_toStartOf="parent"
    tools:layout_editor_absoluteY="333dp" />

```

```
</RelativeLayout>
```

```
*****End*****
```

MainActivity.java

```
package example.signup02;
```

```

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 androidx.appcompat.app.AppCompatActivity;
```

```

import java.util.regex.Matcher;
import java.util.regex.Pattern;

```

```

public class MainActivity extends AppCompatActivity {
    EditText userName, password;
    Button btn;
    int counter = 2;

```

→ email & password

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    email
    userName = findViewById(R.id.txt_username); edit text Email
    password = findViewById(R.id.txt_password); edit text Password
}

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

    if(!isValidPassword(pwd)){
        //Toast.makeText(this, "Password does 'nt match :",
        Toast.LENGTH_SHORT).show();
        Toast.makeText(MainActivity.this, "Password does not match",
        Toast.LENGTH_LONG).show();
        return;
    }

    Intent in = new Intent(MainActivity.this, LoginActivity.class);
    in.putExtra("userName", uName);
    in.putExtra("pwd", pwd);
    startActivity(in);
}

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

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(!number.matcher(pwd).matches())
        return false;
    if(!specialCharacter.matcher(pwd).matches())
        return false;
    return true;
}
}
*****End*****

```

beginning → *can have more (or) one character*
ends with → *should not contain any of these*
re negation.

activity_login.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:id="@+id/textView"
    android:layout_width="307dp"
    android:layout_height="56dp"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_centerHorizontal="true"
    android:layout_gravity="center_horizontal"
    android:layout_marginTop="32dp"
    android:layout_marginEnd="59dp"
    android:layout_marginRight="59dp"
    android:text="LOGIN"
    android:textAlignment="center"
    android:textColor="#E91E63"
    android:textSize="30dp"
    android:textStyle="bold"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.607"
    app:layout_constraintStart_toStartOf="parent"
    tools:layout_editor_absoluteY="51dp" />
```

```
<EditText
    android:id="@+id/login_username"
    android:layout_width="290dp"
    android:layout_height="57dp"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="133dp"
    android:ems="10"
    android:hint="Enter UserName"
    android:textSize="25sp"
    android:inputType="textEmailAddress"
    tools:layout_editor_absoluteX="62dp"
    tools:layout_editor_absoluteY="178dp" />
```

```
<EditText
    android:id="@+id/login_password"
    android:layout_width="290dp"
    android:layout_height="47dp"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="54dp"
    android:layout_marginTop="225dp"
    android:ems="10"
    android:hint="Password"
    android:textSize="25sp"
    android:inputType="textPassword"
    tools:layout_editor_absoluteX="62dp"
```

```

tools:layout_editor_absoluteY="249dp"
android:layout_marginLeft="54dp"
android:layout_alignParentLeft="true" />

<Button
    android:id="@+id/btn_login"
    android:layout_width="187dp"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentLeft="true"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="109dp"
    android:layout_marginLeft="109dp"
    android:layout_marginTop="306dp"
    android:text="LOGIN"
    android:onClick="loginEvent"
    android:textSize="25sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.343"
    app:layout_constraintStart_toStartOf="parent"
    tools:layout_editor_absoluteY="333dp" />

</RelativeLayout>
*****End*****

```

LoginActivity.java

```

package example.signup02;

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 = 2;

    @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 in = new Intent(LoginActivity.this,
LoginSuccessful.class);
            startActivity(in);
        }
        else{
            Toast.makeText(LoginActivity.this, "Invalid credentials",
Toast.LENGTH_LONG).show();
        }
        counter--;
        if(counter==0){
            Toast.makeText(getBaseContext(), "Failed Login Attempts",
Toast.LENGTH_LONG).show();
            btn.setEnabled(false);
        }
    }
}

}

*****End*****

```

Handwritten note: This also reads the value stored in the intent.

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=".LoginSuccessful">

    <TextView
        android:id="@+id/textView"
        android:layout_width="307dp"
        android:layout_height="102dp"
        android:layout_alignParentTop="true"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_centerHorizontal="true"
        android:layout_gravity="center_horizontal"
        android:layout_marginTop="82dp"
        android:layout_marginEnd="68dp"
        android:layout_marginRight="68dp"
        android:text="Wohoo...LOGIN Successful"
        android:textAlignment="center"
        android:textColor="#4CAF50"
        android:textSize="30dp"
        android:textStyle="bold"
    >

```

```
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.607"
app:layout_constraintStart_toStartOf="parent"
tools:layout_editor_absoluteY="51dp" />
```

```
</RelativeLayout>
```

```
*****End*****
```

LoginSuccessful.java

```
package example.signup02;

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);
    }
}
```