

Program-3: Create a SIGN Up activity with Username and Password. Validation of password should happen based on the following rules:

- Password should contain uppercase and lowercase letters.**
- Password should contain letters and numbers.**
- Password should contain special characters.**
- Minimum length of the password (the default value is 8).**

On successful SIGN UP proceed to the next Login activity. Here the user should SIGN IN using the Username and Password created during signup activity. If the Username and Password are matched then navigate to the next activity which displays a message saying “Successful Login” or else display a toast message saying “Login Failed”. The user is given only two attempts and after that display a toast message saying “Failed Login Attempts” and disable the SIGN IN button. Use Bundle to transfer information from one activity to another.

Activity_signup.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="129dp"
        android:layout_height="45dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="168dp"
        android:layout_marginRight="168dp"
        android:layout_marginBottom="596dp"
        android:text="Sign Up"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent">
```

```

        app:layout_constraintTop_toTopOf="parent" />
<EditText
    android:id="@+id/SignUp_email"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="114dp"
    android:layout_marginRight="114dp"
    android:layout_marginBottom="464dp"
    android:ems="10"
    android:hint="EmailId"
    android:inputType="textPersonName" />
<Button
    android:id="@+id/signUpBtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="168dp"
    android:layout_marginRight="168dp"
    android:layout_marginBottom="245dp"
    android:text="Sign Up" />
<EditText
    android:id="@+id/SignUp_Password"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="101dp"
    android:layout_marginRight="101dp"
    android:layout_marginBottom="385dp"
    android:ems="10"
    android:hint="Password"
    android:inputType="textPassword" />
</RelativeLayout>

```

Signup.java

```

package com.example.signupapplication;
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 email_Sign, password_Sign;
    Button signUp_btn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        email_Sign=(EditText)findViewById(R.id.SignUp_email);
        password_Sign=(EditText)findViewById(R.id.SignUp_Password);
        signUp_btn =(Button)findViewById(R.id.signUpBtn);
        signUp_btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String email = email_Sign.getText().toString();
                String password = password_Sign.getText().toString();
                if(!isValidPassword(password)) {
                    Toast.makeText(MainActivity.this,"Password doesn't match
rules",Toast.LENGTH_SHORT).show();
                    return;
                }
                Intent intent = new
Intent(MainActivity.this, LoginActivity.class);
                intent.putExtra("email",email);
                intent.putExtra("password",password);
                startActivity(intent);
            }
        });
    }
    Pattern lowerCase= Pattern.compile("^[a-z].*$");
    Pattern upperCase=Pattern.compile("^[A-Z].*$");
    Pattern number = Pattern.compile("[0-9].*$");
    Pattern special_Chara = Pattern.compile("^[^a-zA-Z0-9].*$");
    private Boolean isValidPassword(String password){
        if(password.length()<8) {
            return false;
        }
        if(!lowerCase.matcher(password).matches()) {
            return false;
        }
        if(!upperCase.matcher(password).matches()) {
            return false;
        }
        if(!number.matcher(password).matches()) {
            return false;
        }
        if(!special_Chara.matcher(password).matches()) {
            return false;
        }
    }
}

```

```

        return true;
    }
}

```

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=".loginActivity">
    <TextView
        android:id="@+id/loginTextView"
        android:layout_width="225dp"
        android:layout_height="45dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="113dp"
        android:layout_marginRight="113dp"
        android:layout_marginBottom="544dp"
        android:text="Login"
        android:textSize="30sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        tools:layout_editor_absoluteX="143dp" />
    <EditText
        android:id="@+id/passEditText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="124dp"
        android:layout_marginRight="124dp"
        android:layout_marginBottom="380dp"
        android:ems="10"
        android:hint="password"
        android:inputType="textPassword" />
    <Button
        android:id="@+id/loginBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="218dp"
        android:layout_marginRight="218dp"
        android:layout_marginBottom="263dp"

```

```

        android:text="Login" />
<EditText
    android:id="@+id/EmailEditText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="127dp"
    android:layout_marginRight="127dp"
    android:layout_marginBottom="455dp"
    android:ems="10"
    android:hint="Email ID"
    android:inputType="textPersonName" />
</RelativeLayout>

```

Login.java

```

package com.example.signupapplication;
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 emailEditText,passwordEditText;
    Button login_btn;
    int counter=2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);
        emailEditText=(EditText) findViewById(R.id.EmailEditText);
        passwordEditText=(EditText) findViewById(R.id.passEditText);
        login_btn=(Button) findViewById(R.id.loginBtn);
        String registeredEmail = getIntent().getStringExtra("email");
        String registeredPassword= getIntent().getStringExtra("password");
        login_btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String email = emailEditText.getText().toString();
                String password = passwordEditText.getText().toString();
                if(registeredEmail.equals(email) &&
registeredPassword.equals(password))
                {
                    Intent intent= new
Intent(LoginActivity.this,LoginSuccessful.class);

```

```

        startActivity(intent);
    }
    else {
        Toast.makeText(LoginActivity.this, "Invalid
Credentials", Toast.LENGTH_SHORT).show();
    }
    counter--;
    if (counter == 0) {
        Toast.makeText(getBaseContext(), "failed to login
attempts", Toast.LENGTH_SHORT).show();
        login_btn.setEnabled(false);
    }
}
});
}
}

```

Loginsuccessful.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=".loginsuccessActivity">
    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="121dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="-11dp"
        android:layout_marginRight="-11dp"
        android:layout_marginBottom="322dp"
        android:text="Login Successful"
        android:textSize="36sp"
        android:textStyle="bold" />
</RelativeLayout>

```

Loginsuccessful.java

```

package com.example.signupapplication;

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);
}
}
```