**Program-3: Create a SIGNUp 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.

**XML CODE:**

**ACTIVITY\_MAIN.XML**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:tools="http://schemas.android.com/tools"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 xmlns:android="http://schemas.android.com/apk/res/android">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textSize="48sp"  
 android:textAlignment="center"  
 android:text="Sign Up" />  
 <EditText  
 android:id="@+id/emailEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="4dp"  
 android:textSize="24sp"  
 android:hint="Email ID"  
 />  
 <EditText  
 android:id="@+id/passwordEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="4dp"  
 android:layout\_marginTop="32dp"  
 android:textSize="24sp"  
 android:inputType="textPassword"  
 android:hint="Password"  
 />  
 <Button  
 android:id="@+id/signUpBtn"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="4dp"  
 android:text="Sign Up"  
 />  
</LinearLayout>

**MAINACTIVITY.JAVA**

package com.example.login;  
  
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.Matcher;  
import java.util.regex.Pattern;

public class MainActivity extends AppCompatActivity {  
 EditText emailEditText, passwordEditText;  
 Button signUpBtn;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
 emailEditText = (EditText)findViewById(R.id.emailEditText);  
 passwordEditText = (EditText)findViewById(R.id.passwordEditText);  
 signUpBtn = (Button)findViewById(R.id.signUpBtn);  
 signUpBtn.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String email = emailEditText.getText().toString();  
 String password = passwordEditText.getText().toString();  
 if (!isValidPassword(password)) {  
 Toast.makeText(MainActivity.this, "Password doesn't match rules"  
 , Toast.LENGTH\_SHORT).show();  
 return;  
 }  
 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].\*$");  
 Pattern specialCharacter = Pattern.compile("^.\*[^a-zA-Z0-9].\*$");  
 private Boolean isValidPassword(String password) {  
*// Checks if password length is less than 8* if (password.length() < 8) {  
 return false;  
 }  
*// Returns false if password doesn't contain a lower case character* if (!lowerCase.matcher(password).matches()) {  
 return false;  
 }

*// Returns false if password doesn't contain an upper case character* if (!upperCase.matcher(password).matches()) {  
 return false;  
 }  
*// Returns false if password doesn't contain a number* if (!number.matcher(password).matches()) {  
 return false;  
 }  
*// Returns false if password doesn't contain a special character* if (!specialCharacter.matcher(password).matches()) {  
 return false;  
 }  
 return true;  
 }  
}

**ACTIVITY\_LOGIN.XML**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout  
 xmlns:tools="http://schemas.android.com/tools"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
  
 xmlns:android="http://schemas.android.com/apk/res/android">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textSize="48sp"  
 android:textAlignment="center"  
 android:text="Login" />  
 <EditText  
 android:id="@+id/emailEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="4dp"  
 android:textSize="24sp"  
 android:hint="Email ID"  
 />  
 <EditText  
 android:id="@+id/passwordEditText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="4dp"  
 android:layout\_marginTop="32dp"  
 android:textSize="24sp"  
 android:inputType="textPassword"  
 android:hint="Password"  
 />  
 <Button  
 android:id="@+id/loginBtn"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="4dp"  
 android:text="Login"  
 />  
</LinearLayout>

**LOGINACTIVITY.JAVA**

package com.example.login;  
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;  
  
public class LoginActivity extends AppCompatActivity {  
  
 EditText emailEditText, passwordEditText;  
 Button loginBtn;  
 String registeredEmail,registeredPassword;  
 @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.*passwordEditText*);  
 loginBtn = (Button) findViewById(R.id.*loginBtn*);  
 registeredEmail = getIntent().getStringExtra("email");  
 registeredPassword = getIntent().getStringExtra("password");  
 loginBtn.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 = new Intent(LoginActivity.this, LoginSuccessActivity.class);  
 startActivity(intent);  
 } else {  
 Toast.*makeText*(LoginActivity.this, "Invalid Credentials", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 }  
}

**ACTIVITY\_LOGIN\_SUCCESS.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"  
 android:background="#C2EAEF"  
 android:orientation="vertical">  
  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="76dp"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginBottom="303dp"  
 android:text="Login Successful"  
 android:textAlignment="center"  
 android:textSize="35dp"  
 android:textStyle="bold|italic" />  
  
  
</RelativeLayout>

**LOGINSUCCESSACTIVITY.JAVA**

package com.example.login;  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
  
public class LoginSuccessActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_login\_success*);  
 }  
}





