

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.

The image displays two side-by-side UI mockups on a light gray grid background. The left mockup is titled 'SIGNUP ACTIVITY' in bold black text. It features two input fields: the first is preceded by the label 'Username:' and the second by 'Password:'. Below these fields is a black button with the text 'SIGN UP' in white. The right mockup is titled 'LOGIN ACTIVITY' in bold black text. It also features two input fields, the first preceded by 'Username:' and the second by 'Password:'. Below these fields is a black button with the text 'SIGN IN' in white.

Mainactivity.java

```
package com.example.signup;
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 emailtxt,passwordtxt;
    Button signup;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        emailtxt = findViewById(R.id.editTextTextEmailAddress);
        passwordtxt = findViewById(R.id.editTextTextPassword);
    }

    public void signup(View view)
    {

        String email = emailtxt.getText().toString();
        String password = passwordtxt.getText().toString();

        if(!valid(password))
        {
            Toast.makeText(this,"Password doesn't match rules", Toast.LENGTH_LONG).show();
            return;
        }

        Toast.makeText(this,"Valid Password", Toast.LENGTH_LONG).show();
        Intent intent = new Intent(this, Login.class);

        intent.putExtra("email",email);
        intent.putExtra("password",password);
        startActivity(intent);

    }

    Pattern lcase=Pattern.compile("^.*[a-z].*$");
    Pattern ucase=Pattern.compile("^.*[A-Z].*$");
    Pattern num=Pattern.compile("^.*[0-9].*$");
    Pattern schar=Pattern.compile("^.*[^a-zA-Z0-9].*$");

    private boolean valid(String pwd) {
        if(pwd.length()<8) {
            return false;
        }
        if(!lcase.matcher(pwd).matches()) {
            return false;
        }
    }
}
```

```

        if(!ucase.matcher(pwd).matches()) {
            return false;
        }
        if(!num.matcher(pwd).matches()) {
            return false;
        }
        if(!schar.matcher(pwd).matches()) {
            return false;
        }
        return true;
    }
}

```

Login.java

```

package com.example.signup;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class Login extends AppCompatActivity implements View.OnClickListener
{
    EditText emailtxt, passwordtxt;
    Button login;
    String remail, rpwd;
    int count = 0;

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

        emailtxt = findViewById(R.id.editTextTextEmailAddress2);
        passwordtxt = findViewById(R.id.editTextTextPassword2);

        login = (Button) findViewById(R.id.button2);
        login.setOnClickListener(this);

        remail=getIntent().getStringExtra("email");
        rpwd=getIntent().getStringExtra("password");
    }

    @Override
    public void onClick(View view) {
        String mailtxt = emailtxt.getText().toString();
        String pwd = passwordtxt.getText().toString();

        if (remail.equals(mailtxt) && rpwd.equals(pwd)) {
            Toast.makeText(this, "Login Successful", Toast.LENGTH_LONG).show();
        }
    }
}

```

```

else {
    count++;
    if (count == 3) {
        login.setEnabled(false);
        Toast.makeText(this, "Failed Login attempts", Toast.LENGTH_LONG).show();
    } else
        Toast.makeText(this, "Login Failed " + count, Toast.LENGTH_LONG).show();
    }
}
}

```

Output:

