

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 shows two wireframes side-by-side. The left wireframe is titled 'SIGNUP ACTIVITY' and contains two text input fields labeled 'Username:' and 'Password:', followed by a 'SIGN UP' button. The right wireframe is titled 'LOGIN ACTIVITY' and contains two text input fields labeled 'Username:' and 'Password:', followed by a 'SIGN IN' button.

## Sign Up Sign In Application

### activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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/username" android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10" android:inputType="textPersonName"
        android:hint="UserName"
        app:layout_constraintBottom_toBottomOf="parent"
```

```
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.497"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.316" />
```

#### <EditText

```
android:id="@+id/password"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:ems="10" android:inputType="textPassword"
android:hint="Password"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.497"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

#### <Button

```
android:id="@+id/signup"
android:layout_width="wrap_content"
android:layout_height="wrap_content" android:text="Sign Up"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.717" />
```

#### <TextView

```
android:id="@+id/textView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="SignUp Page"
android:textSize="30dp"
android:textColor="@color/white"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.11" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

**activity\_sign\_in.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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=".SignIn">
```

## &lt;TextView

```
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Sign In Page"
    android:textSize="30dp"
    android:textColor="@color/white"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.143" />
```

## &lt;EditText

```
    android:id="@+id/username"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10" android:inputType="textPersonName"
    android:hint="UserName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.497"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.38" />
```

## &lt;EditText

```
    android:id="@+id/password"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10" android:inputType="textPassword"
    android:hint="Password"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintHorizontal_bias="0.497"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.581" />
```

<Button

```
    android:id="@+id/signin"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Sign In"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.8" />
```

</androidx.constraintlayout.widget.ConstraintLayout

## MainActivity.java

```
package com.example.login;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.content.Intent;
import android.os.Bundle;
import android.service.autofill.FieldClassification;
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 username,password;
    Button signUpBtn;
```

```
String regularExpr="^(?=.*[A-Z])(?=.*[a-z])(?=.*\\d)(?=.*[@$!]) [A-
Za-z\\d@$!]{8,}$";
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
```

```
setContentView(R.layout.activity_main);

username = findViewById(R.id.username);
password = findViewById(R.id.password);
signupBtn = findViewById(R.id.signup);

signupBtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        String uname = username.getText().toString();
        String pwd = password.getText().toString();

        if(validatePassword(pwd)){

            Bundle bundle = new Bundle();

            bundle.putString("username",uname);
            bundle.putString("password",pwd);

            Intent intent = new Intent(MainActivity.this,SignIn.class);
            intent.putExtras(bundle); startActivity(intent);

        }
        else{

            Toast.makeText(MainActivity.this, "InvaildPassword",
            Toast.LENGTH_SHORT).show();
        }

    }
});

public boolean validatePassword(String pwd){
    Pattern pattern = Pattern.compile(regularExpr);
    Matcher matcher = pattern.matcher(pwd);

    return matcher.matches();
}
}
```

## SignIn.java

```
package com.example.login;

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 SignIn extends AppCompatActivity {

    EditText username,password;
    Button signInBtn;

    int count=0;

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

        username = findViewById(R.id.username);
        password= findViewById(R.id.password);
        signInBtn = findViewById(R.id.signin);
        Bundle bundle = getIntent().getExtras();
        String uname = bundle.getString("username");
        String pwd = bundle.getString("password");

        signInBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String user = username.getText().toString();
                String pass = password.getText().toString();

                if(user.equals(uname) && pass.equals(pwd)){
                    Toast.makeText(SignIn.this, "Success",
                    Toast.LENGTH_SHORT).show();
                }
                else {
                    count++;
                    if (count >= 3) {
                        signInBtn.setEnabled(false);
                    }
                }
            }
        }

    }
}
```

```
Toast.makeText(SignIn.this, "Failed",  
Toast.LENGTH_SHORT).show();  
}  
}  
}  
});  
}
```





