

Program 8 : Login Application

MainActivity.java

```
package com.example.loginapplication;
```

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

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.EditText;
```

```
import android.widget.Toast;
```

```
import java.util.regex.Pattern;
```

```
public class MainActivity extends AppCompatActivity {  
    EditText emailText, passwordText;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        emailText = findViewById(R.id.editTextEmail);  
        passwordText = findViewById(R.id.editTextPassword);  
    }
```

```
    public void signup(View view) {  
        String email = emailText.getText().toString();  
        String password = passwordText.getText().toString();  
        if (!isValidPassword(password)) {  
            Toast.makeText(this, "Password does not match rules", Toast.LENGTH_LONG).show();  
            return;  
        }  
        Intent intent = new Intent(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 schar = 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 (!schar.matcher(password).matches()) {
        return false;
    }
    return true;
}
}

```

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:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="129dp"
        android:layout_marginBottom="488dp"
        android:text="Sign Up"
        android:textSize="34sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/editTextEmail"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="83dp"
        android:layout_marginBottom="416dp"
        android:ems="10"
        android:hint="Email-id"
        android:inputType="textEmailAddress" />

    <EditText
        android:id="@+id/editTextPassword"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="84dp"
        android:layout_marginBottom="353dp"

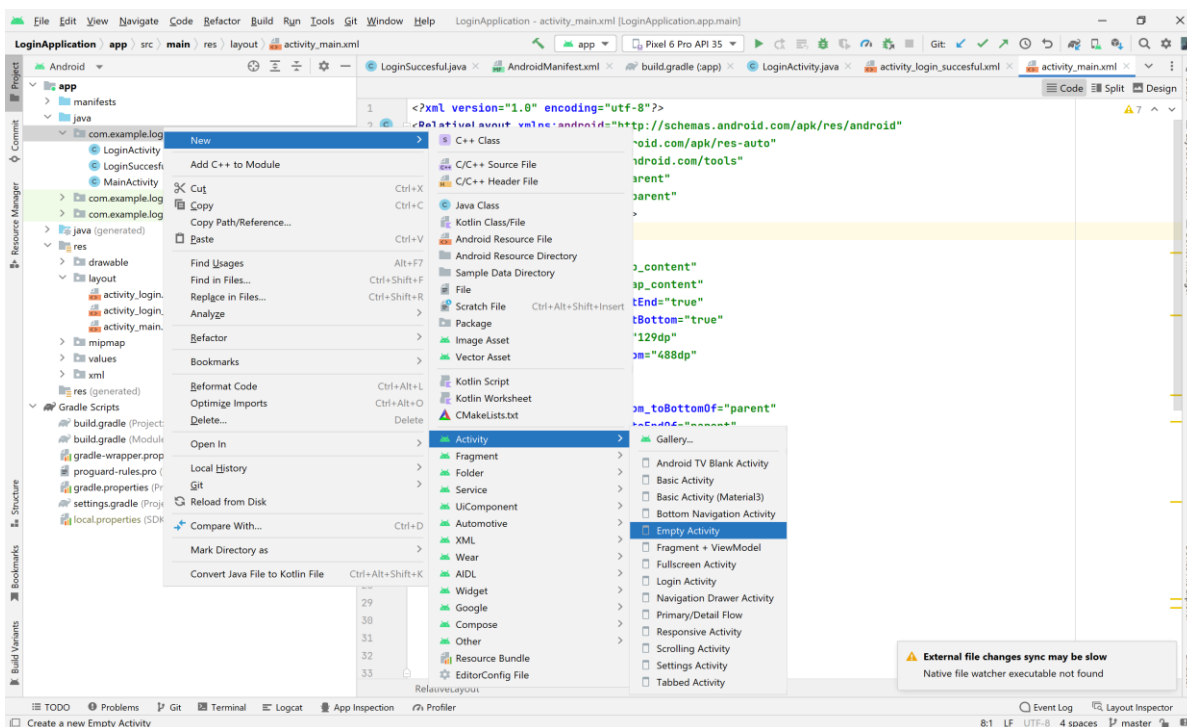
```

```
android:ems="10"
android:hint="Enter Password"
android:inputType="textPassword" />
```

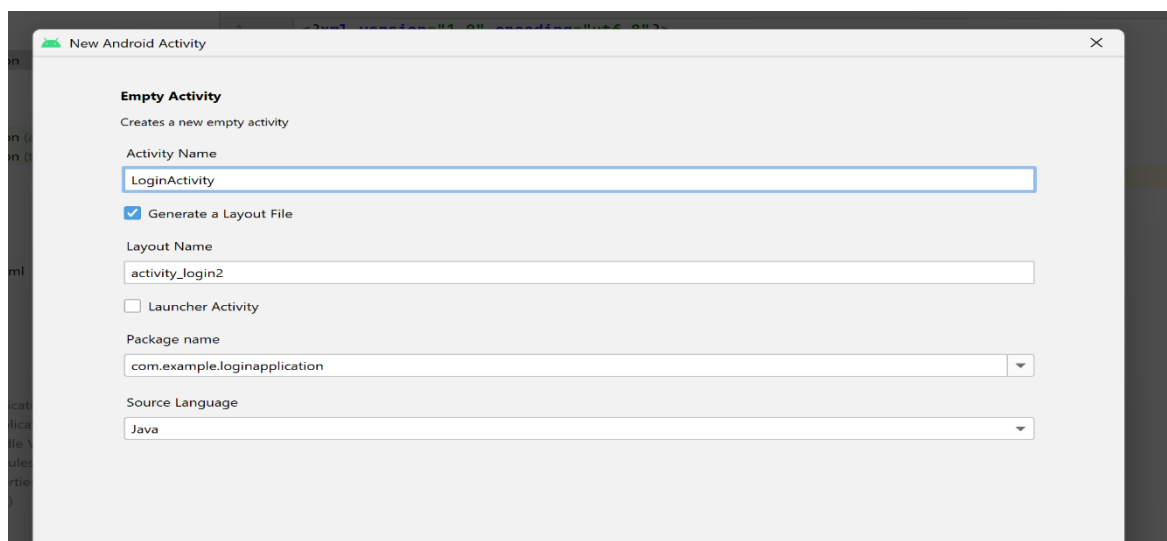
<Button

```
android:id="@+id/signup"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentEnd="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="143dp"
android:layout_marginBottom="268dp"
android:onClick="signup"
android:text="Signup" />
```

</RelativeLayout>



Then Create a new Empty Activity as above and name it LoginActivity, and layout file will be created by it self



LoginActivity.java

```
package com.example.loginapplication;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

public class LoginActivity extends AppCompatActivity {
    EditText emailText, passwordText;
    String rEmail, rPassword;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);
        emailText = findViewById(R.id.editTextEmail);
        passwordText = findViewById(R.id.editTextPassword);
        rEmail = getIntent().getStringExtra("email");
        rPassword = getIntent().getStringExtra("password");
    }

    public void login(View view) {
        String email = emailText.getText().toString();
        String password = passwordText.getText().toString();
        if (rEmail.equals(email) && rPassword.equals(password)) {
            Intent intent = new Intent(this, LoginSuccessful.class);
            startActivity(intent);
        } else {
            Toast.makeText(this, "Invalid Credentials", Toast.LENGTH_LONG).show();
        }
    }
}
```

created layout file is *activity_login.xml*

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=".LoginActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
```

```

        android:layout_alignParentBottom="true"
        android:layout_marginEnd="150dp"
        android:layout_marginBottom="487dp"
        android:text="Login"
        android:textSize="34sp" />

<EditText
    android:id="@+id/editTextEmail"
    android:layout_width="187dp"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="95dp"
    android:layout_marginBottom="412dp"
    android:ems="10"
    android:hint="Email-id"
    android:inputType="textEmailAddress" />

<EditText
    android:id="@+id/editTextPassword"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="87dp"
    android:layout_marginBottom="350dp"
    android:ems="10"
    android:hint="Enter password"
    android:inputType="textPassword" />

<Button
    android:id="@+id/login"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="143dp"
    android:layout_marginBottom="272dp"
    android:onClick="login"
    android:text="Login" />
</RelativeLayout>

```

Repeat the above same steps for new empty activity and name it as LoginSuccesful, layout file will be created as activity_login_succesful.xml

LoginSuccesful.java

```

package com.example.loginapplication;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

```

```

public class LoginSucesful extends AppCompatActivity {

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

```

activity_login_sucesful.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=".LoginSucesful">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="78dp"
        android:layout_marginBottom="344dp"
        android:text="Login Successfull"
        android:textSize="34sp"
        app:layout_constraintEnd_toEndOf="parent"
        tools:layout_editor_absoluteY="59dp" />
</RelativeLayout>

```

Note: If you get a Null pointer error do make these changes in dependencies might error get cleared.

```

33
34 dependencies {
35     implementation 'androidx.appcompat:appcompat:1.6.1'
36     implementation 'com.google.android.material:material:1.11.0'
37     implementation 'androidx.constraintlayout:constraintlayout:2.1.4'
38     testImplementation 'junit:junit:4.13.2'
39     androidTestImplementation 'androidx.test.ext:junit:1.1.5'
40     androidTestImplementation 'androidx.test.espresso:espresso-core:3.5.1'
41 }

```