
File 1 — activity_main.xml

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <LinearLayout xmlns:android="http://schemas.android.com/apk/
  res/android"
3   android:layout_width="match_parent"
4   android:layout_height="match_parent"
5   android:orientation="vertical"
6   android:padding="20dp">
7
8   <TextView
9     android:text="Login Form"
10    android:textSize="24sp"
11    android:textStyle="bold"
12    android:gravity="center"
13    android:layout_width="match_parent"
14    android:layout_height="wrap_content"
15    android:layout_marginBottom="20dp" />
16
17   <EditText
18     android:id="@+id/etUsername"
19     android:hint="Enter Username"
20     android:layout_width="match_parent"
21     android:layout_height="wrap_content"
22     android:inputType="text" />
23
24   <EditText
25     android:id="@+id/etPassword"
26     android:hint="Enter Password"
27     android:layout_width="match_parent"
28     android:layout_height="wrap_content"
29     android:inputType="textPassword" />
30
31   <Button
32     android:id="@+id/btnLogin"
33     android:text="Login"
34     android:layout_width="match_parent"
35     android:layout_height="wrap_content"
36     android:layout_marginTop="15dp" />
37 </LinearLayout>
```

File 2 — MainActivity.java

```
1 package com.example.myapplication;
2
3 import androidx.appcompat.app.AppCompatActivity;
4 import android.content.Intent;
5 import android.os.Bundle;
6 import android.widget.*;
7
8 public class MainActivity extends AppCompatActivity {
9
10     EditText etUsername, etPassword;
11     Button btnLogin;
12
13     @Override
14     protected void onCreate(Bundle savedInstanceState) {
15         super.onCreate(savedInstanceState);
16         setContentView(R.layout.activity_main);
17
18         etUsername = findViewById(R.id.etUsername);
19         etPassword = findViewById(R.id.etPassword);
20         btnLogin = findViewById(R.id.btnLogin);
21
22         btnLogin.setOnClickListener(v -> {
23             String user = etUsername.getText().toString().trim();
24             String pass = etPassword.getText().toString().trim();
25
26             if (user.equals("admin") && pass.equals("1234")) {
27                 // Move to WelcomeActivity after successful
28                 // login
29                 Intent i = new Intent(MainActivity.this,
30                     WelcomeActivity.class);
31                 i.putExtra("username", user);
32                 startActivity(i);
33             } else {
34                 Toast.makeText(MainActivity.this,
35                     "Invalid Credentials", Toast.LENGTH_SHORT)
36                     .show();
37             }
38         });
39     }
40 }
```

File 3 — activity_welcome.xml

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <LinearLayout xmlns:android="http://schemas.android.com/apk/
  res/android"
3   android:layout_width="match_parent"
4   android:layout_height="match_parent"
5   android:gravity="center"
6   android:orientation="vertical">
7
8   <TextView
9     android:id="@+id/textWelcome"
10    android:text="Welcome!"
11    android:textSize="26sp"
12    android:textStyle="bold"
13    android:layout_width="wrap_content"
14    android:layout_height="wrap_content" />
15 </LinearLayout>
```

File 4 — WelcomeActivity.java

```
1 package com.example.myapplication;
2
3 import androidx.appcompat.app.AppCompatActivity;
4 import android.os.Bundle;
5 import android.widget.TextView;
6
7 public class WelcomeActivity extends AppCompatActivity {
8
9     TextView textWelcome;
10
11     @Override
12     protected void onCreate(Bundle savedInstanceState) {
13         super.onCreate(savedInstanceState);
14         setContentView(R.layout.activity_welcome);
15
16         textWelcome = findViewById(R.id.textWelcome);
17
18         // Get username from Intent
19         String username = getIntent().getStringExtra("username
20             ");
21         textWelcome.setText("Welcome, " + username + "!");
22     }
23 }
```

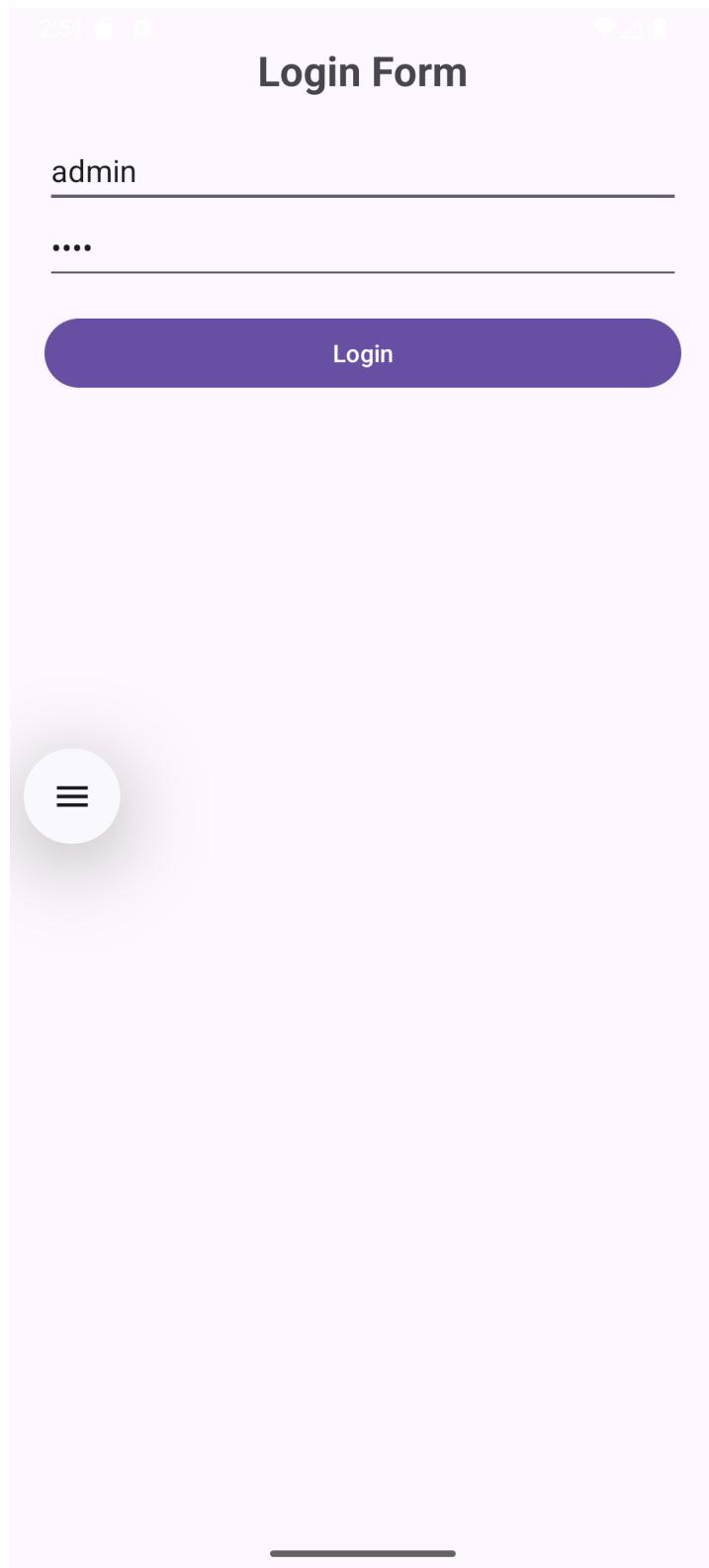


Figure 1: Login Screen

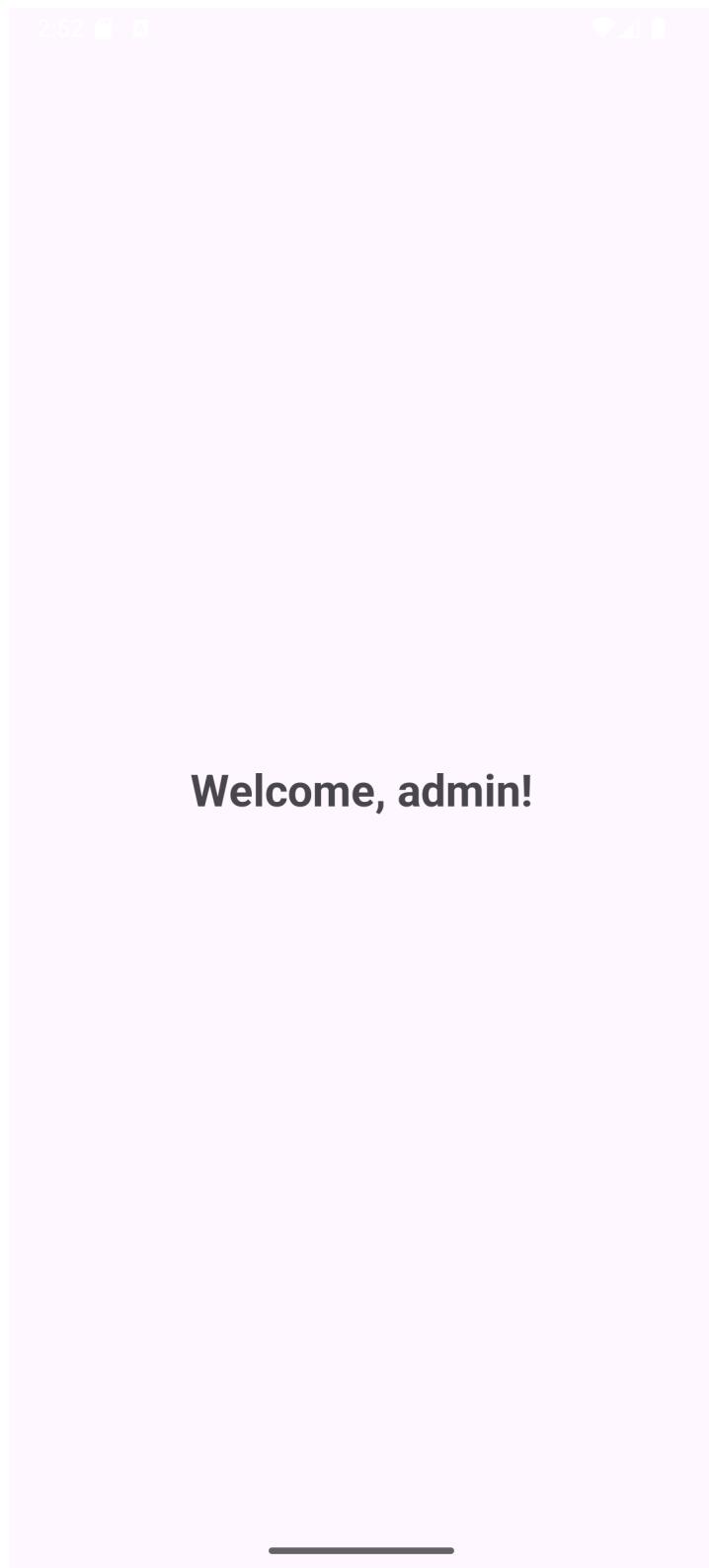


Figure 2: Welcome Screen after successful login

File 1 — activity_main.xml

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <FrameLayout xmlns:android="http://schemas.android.com/apk/res/
  /android"
3   android:id="@+id/frameLayout"
4   android:layout_width="match_parent"
5   android:layout_height="match_parent"
6   android:gravity="center"
7   android:background="#FFFFFF">
8
9   <!-- First image -->
10  <ImageView
11    android:id="@+id/image1"
12    android:layout_width="300dp"
13    android:layout_height="300dp"
14    android:src="@drawable/image1"
15    android:contentDescription="First Image" />
16
17  <!-- Second image (hidden initially) -->
18  <ImageView
19    android:id="@+id/image2"
20    android:layout_width="300dp"
21    android:layout_height="300dp"
22    android:src="@drawable/image2"
23    android:visibility="gone"
24    android:contentDescription="Second Image" />
25
26 </FrameLayout>
```

File 2 — MainActivity.java

```
1 package com.example.toggleimageapp;
2
3 import androidx.appcompat.app.AppCompatActivity;
4 import android.os.Bundle;
5 import android.view.View;
6 import android.widget.FrameLayout;
7 import android.widget.ImageView;
8
9 public class MainActivity extends AppCompatActivity {
10
11     ImageView img1, img2;
12     boolean showingFirst = true;
13
14     @Override
15     protected void onCreate(Bundle savedInstanceState) {
16         super.onCreate(savedInstanceState);
17         setContentView(R.layout.activity_main);
18
19         img1 = findViewById(R.id.image1);
20         img2 = findViewById(R.id.image2);
21         FrameLayout frame = findViewById(R.id.frameLayout);
22
23         // Toggle images when the frame is clicked
24         frame.setOnClickListener(new View.OnClickListener() {
25             @Override
26             public void onClick(View v) {
27                 if (showingFirst) {
28                     img1.setVisibility(View.GONE);
29                     img2.setVisibility(View.VISIBLE);
30                 } else {
31                     img1.setVisibility(View.VISIBLE);
32                     img2.setVisibility(View.GONE);
33                 }
34                 showingFirst = !showingFirst;
35             }
36         });
37     }
38 }
```



Figure 3: First Image Display



Figure 4: Second Image after clicking

File 1 — activity_main.xml

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <LinearLayout
3     xmlns:android="http://schemas.android.com/apk/res/android"
4     android:layout_width="match_parent"
5     android:layout_height="match_parent"
6     android:gravity="center"
7     android:orientation="vertical"
8     android:background="#ECECEC"
9     android:padding="24dp">
10
11     <TextView
12         android:layout_width="wrap_content"
13         android:layout_height="wrap_content"
14         android:text="Main Activity"
15         android:textSize="24sp"
16         android:textStyle="bold"
17         android:layout_marginBottom="20dp"/>
18
19     <Button
20         android:id="@+id/btnNext"
21         android:layout_width="wrap_content"
22         android:layout_height="wrap_content"
23         android:text="Go to Next Activity"
24         android:padding="12dp"
25         android:backgroundTint="#2196F3"
26         android:textColor="#FFFFFF" />
27
28 </LinearLayout>
```

File 2 — MainActivity.java

```
1 package com.example.intentdemo;
2
3 import androidx.appcompat.app.AppCompatActivity;
4 import android.content.Intent;
5 import android.os.Bundle;
6 import android.widget.Button;
7
8 public class MainActivity extends AppCompatActivity {
9
10     Button btnNext;
11
12     @Override
13     protected void onCreate(Bundle savedInstanceState) {
14         super.onCreate(savedInstanceState);
15         setContentView(R.layout.activity_main);
16
17         btnNext = findViewById(R.id.btnNext);
18
19         btnNext.setOnClickListener(v -> {
20             // Explicit Intent - to navigate to SecondActivity
21             Intent intent = new Intent(MainActivity.this,
22                 SecondActivity.class);
23             startActivity(intent);
24         });
25     }
26 }
```

File 3 — SecondActivity.java

```
1 package com.example.intentdemo;
2
3 import androidx.appcompat.app.AppCompatActivity;
4 import android.os.Bundle;
5 import android.widget.TextView;
6 import android.widget.LinearLayout;
7 import android.view.Gravity;
8 import android.graphics.Color;
9
10 public class SecondActivity extends AppCompatActivity {
11
12     @Override
13     protected void onCreate(Bundle savedInstanceState) {
14         super.onCreate(savedInstanceState);
15
16         // Simple layout created programmatically
17         LinearLayout layout = new LinearLayout(this);
18         layout.setOrientation(LinearLayout.VERTICAL);
19         layout.setGravity(Gravity.CENTER);
20
21         TextView txt = new TextView(this);
22         txt.setText("Welcome to the Second Activity!");
23         txt.setTextSize(22f);
24         txt.setTextColor(Color.BLACK);
25
26         layout.addView(txt);
27         setContentView(layout);
28     }
29 }
```

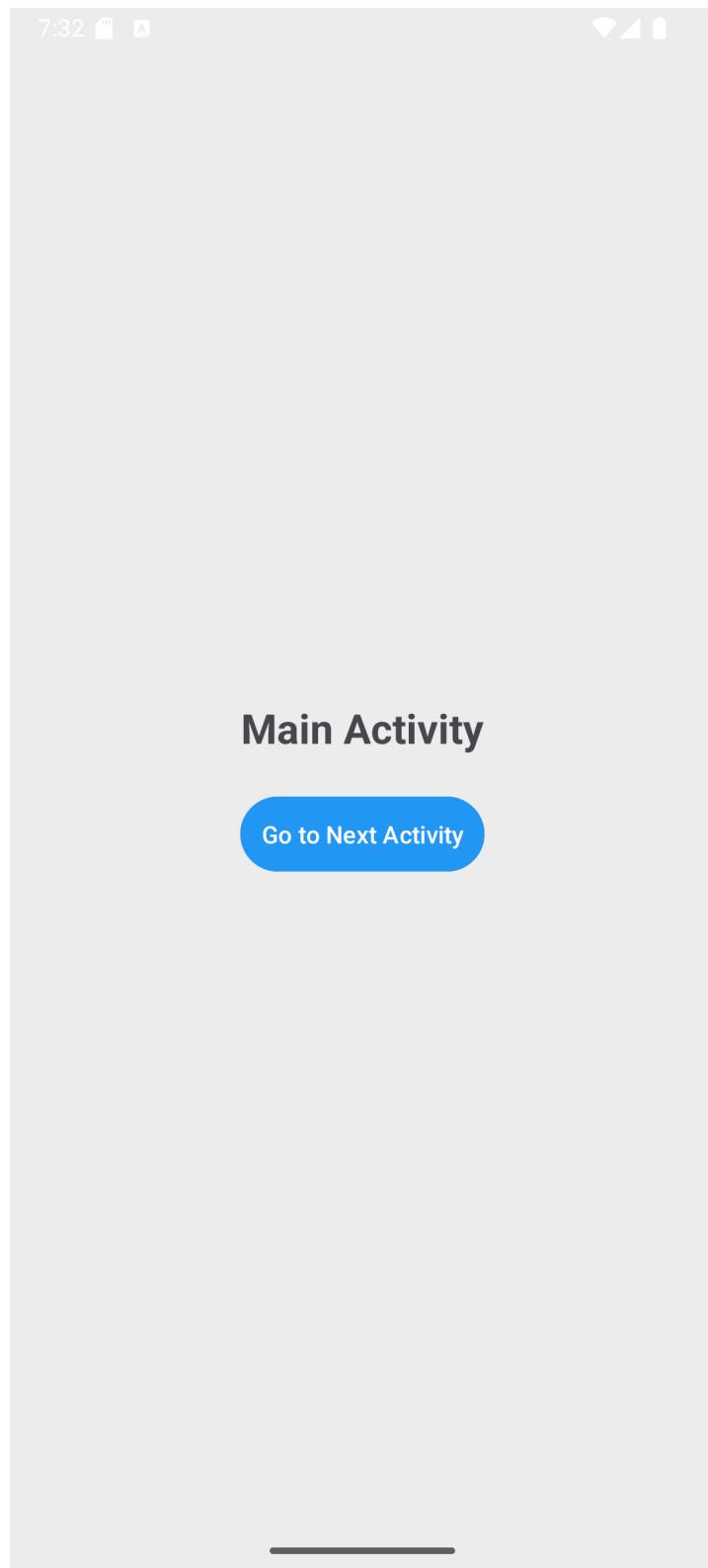


Figure 5: Main Activity Screen

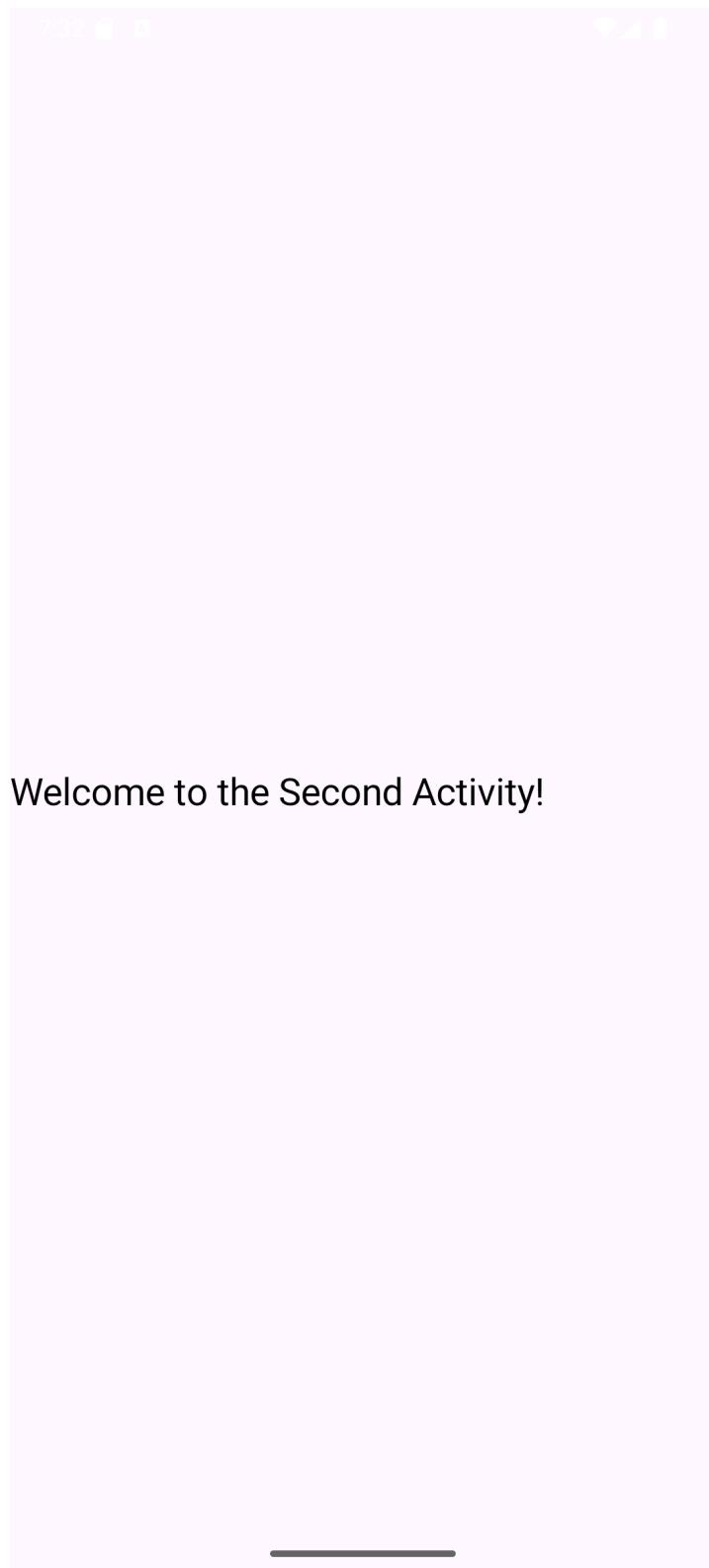


Figure 6: Second Activity Screen