

ICP 8: APIs and Angular Routing

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Introduction

Mobile device usage has been on the rise for years, overtaking desktop and laptop use. In response to this shift, mobile app development has become increasingly important and Android Studio is a key IDE for developing such applications for phones operating on the Android OS which account for the vast majority of mobile phone users in the world.

Basic Login

To create a simple login feature, two `<EditText>` elements were used to accept user inputs for the username and password. Tagged with an ID, these inputs were coupled with a “Login” button that was linked to an event listener as shown below:

```
28 login.setOnClickListener(new View.OnClickListener() {
29     @Override
30     public void onClick(View v) {
31         if (username.getText().toString().equals("user") && password.getText().toString().equals("password")) {
32             Intent intent = new Intent( packageContext: MainActivity.this, MainActivity2.class);
33             startActivity(intent);
34             Toast.makeText( context: MainActivity.this, text: "Correct username", Toast.LENGTH_SHORT).show();
35         } else {
36             Toast.makeText( context: MainActivity.this, text: "Incorrect login credentials.", Toast.LENGTH_SHORT).show();
37         }
38     }
39 });
```

MainActivity.java

A simple IF-ELSE statement is used within the event listener which checks the username and password for matching conditions. In this case, the following credentials will redirect the user to the welcome page for the app:

- Username: **user**
- Password: **password**

Any other credential will show the user an error prompt and keep them on the login page.

Similar features were introduced for the welcome page which shows a text message and a “Logout” button that will return the user to the login screen.

```
20 logout = findViewById(R.id.logout);
21 logout.setOnClickListener(new View.OnClickListener() {
22     @Override
23     public void onClick(View v) {
24         Intent intent = new Intent( packageContext: MainActivity2.this, MainActivity.class);
25         startActivity(intent);
26         Toast.makeText( context: MainActivity2.this, text: "Logged Out", Toast.LENGTH_SHORT).show();
27     }
28 });
```

MainActivity2.java

Contribution

The code shown in this report is from Joe Moon's repository.