

ICP – 8 Login application for android

Team details:

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Github link: <https://github.com/sarath98-lab/spring-2022/tree/main/Mobile/ICP8>

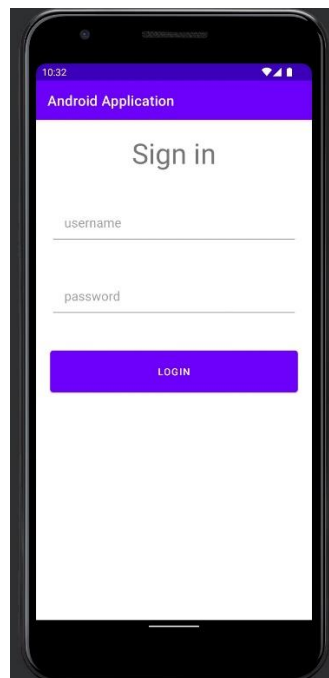
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Github link: <https://github.com/SaiKicks/WebMobile-Spring2022/tree/main/mobile/ICP8>

Description:

Current ICP helps in understand developing an Android application using android studio.

Login screen



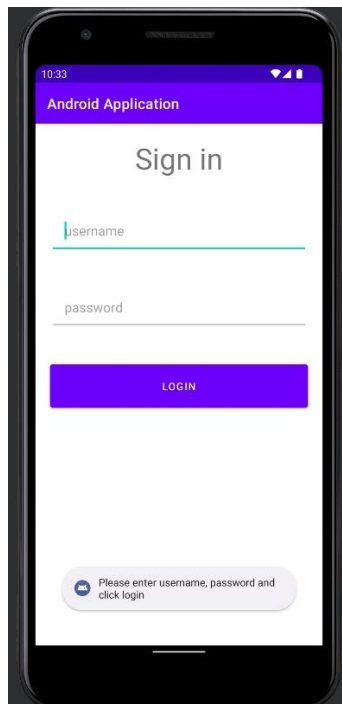
After configuring mobile application with a blank page, we have designed the default page as sign in page which has username, password fields to enter input and Login button to login.

Validation on Sign in page

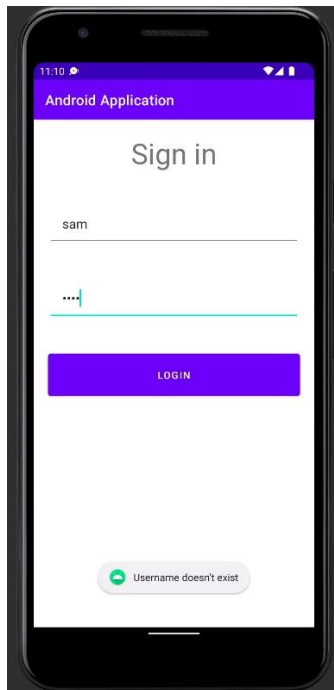
```
username = findViewById(R.id.username);
password = findViewById(R.id.password);
btn = findViewById(R.id.btn);
btn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        if(!username.getText().toString().isEmpty() && !password.getText().toString().isEmpty()) {
            if ((username.getText().toString().equals("sai")) && (password.getText().toString().equals("password@321")))) {
                Intent intent = new Intent( packageContext: MainActivity.this, MainActivity2.class);
                startActivity(intent);
                Toast.makeText( context: MainActivity.this, text: "Login is success!", Toast.LENGTH_SHORT).show();
            } else { //incorrect username/password
                if (!username.getText().toString().equals("sai")) {
                    Toast.makeText( context: MainActivity.this, text: "Username doesn't exist", Toast.LENGTH_SHORT).show();
                }
                else {
                    Toast.makeText( context: MainActivity.this, text: "Password is not correct", Toast.LENGTH_SHORT).show();
                }
            }
        } else { //missing details(username/password)
            Toast.makeText( context: MainActivity.this, text: "Please enter username, password and click login", Toast.LENGTH_SHORT).show();
        }
    }
});
```

The code snippet shows validations on sign in page

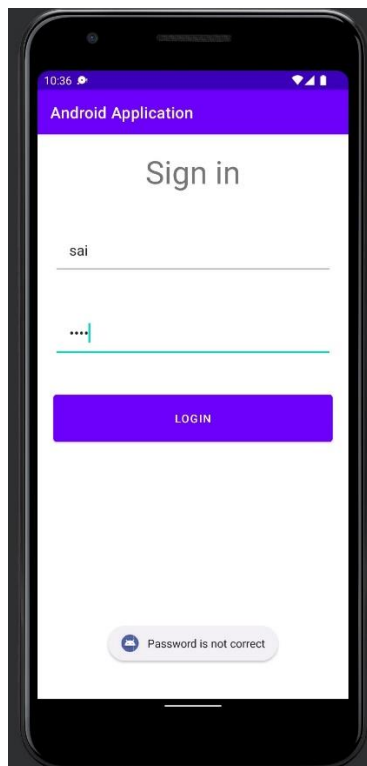
- When fields are black and clicked on login in button, error message is shown as **‘Please enter username, password and click login’**



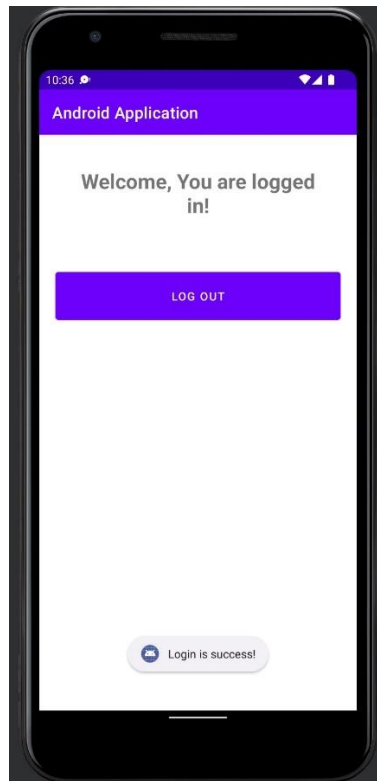
- When username is not registered or invalid username is entered, error message is shown as **'Username doesn't exist'**



- When username is correct but password is incorrect, error message is shown as **'Password is not correct'**



- When username and password are correct, message is shown as **'Login is success!'** and screen is redirected to new page which has Welcome, you are logged in!



Logged in screen

The logged in screen has welcome information and a log out button.

When clicked on log out button it is redirected to default page i.e., log in page.

Code structure:

Manifest file:

Manifest file has XML extension, which has important metadata information about the application.

Java folder:

It has all the functionality related to application such as how to handle on click and redirect to other page (intent).

Res > layout folder:

It has all the design screen and XML code related to it. Using tags in this file we can design the page.

Learnings from the lesson:

- Develop and debug android application with Android studio.

Contribution:

Equal contribution