Application Development

Lab 3 – Firebase Email and Password Authentication in Android using Kotlin

September 24, 2021

Objectives: In this lab, you will learn to

- create a Firebase project,

- connect a Firebase project to an Android app, and

- create an Android app that allows the user to create a new account, sign in, and sign out

Instructions: https://www.section.io/engineering-education/firebase-email-and-password-authentication-in-android-using-kotlin/

Kotlin reference: https://kotlinlang.org/docs/home.html

1 Introduction

Firebase authentication is a technology used to set up service-access permissions. It does so by creating and managing valid user accounts using firebase APIs and Firebase console provided by Google. In this lab, you'll learn how to implement firebase authentication in an Android application.

2 Creating an Android project

3 Sign in to Android studio

4 Creating a Firebase project

5 Connecting Firebase project to an Android app

6 Application code

7 Homework

7.1 Question 1

In the file *CreateAccountActivity.kt*, what is the base class of the class *CreateAccountActivity*?

7.2 Question 2

How are the keywords *var* and *val* used in Kotlin?

7.3 Question 3

The following code snippet is from the file *CreateAccountActivity.kt*,

```
override fun onCreate(savedInstanceState: Bundle?) {
/*...*/
}
```
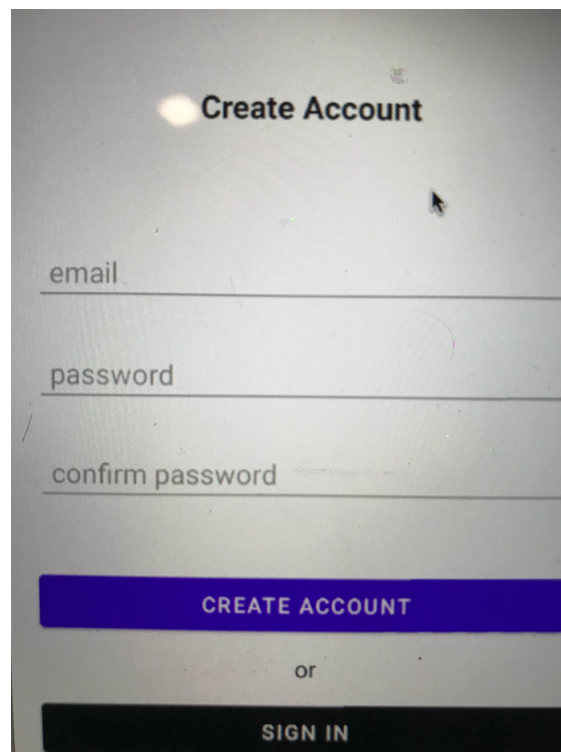
What does the keyword *override* signify?

7.4 Question 4

Explain the use of each method in the class *CreateAccountActivity* in the file *CreateAccountActivity.kt*.

7.5 Question 5

What are *TextView*, *EditText*, and *Button* in the file *activity_create_account.xml*. List all the *TextView*'s, *EditText*'s, and *Button*'s in the following screen

Figure 1: Create Account screen