

Technical Report

Create an account using a Facebook account and apply
the concept of cookies and a session

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Abstract. Sometimes you do not want to delay your time in the process an account, and as we all know that in some applications, we can use a] account to log in. This application is based on this idea as it is an applic on the Android platform. In the beginning, the application must be installed on your device and you register Log in through your personal account with Facebook and continue the rest of the processes, as the application contains cookies that may help you a lot in saving temporary data, which you may not need to write again or reload.

Keywords

Facebook, Account, Sig-up, API, Cookies, Session, Developer, Android, Kotlin Animation, GitHub.

1. Introduction

The technologies came to facilitate automatic operations, usually to continue browsing the website and the application better. You may be asked to create an account, and if you have a Facebook or Google account, etc. it is easier to register through it, and it is the fastest way, often with only a few steps to complete the task.

In this paper, I will explain an application called (Facebook test) through which the visitor can register, the application using his Facebook account or he can use an email and other password to continue the registration process, and he has a specific time of 5 seconds and then he will register Automatic exit, and this programming mechanism is called (session), meaning that the specified time for the session has expired.

Also, if the user leaves the application, the application will save his account, and if he wants to log in again, he can save the login data and the next time he logs in directly. This scientific method is also called cookies, which is a mechanism whose advantage is to save data temporarily in the device or browser.

2. Tools and Technologies used

2.1 Kotlin

Kotlin is an open-source, statically typed programming language that supports both object-oriented and functional programming. Kotlin provides similar syntax and concepts from other languages, including C#, Java, and Scala, among many others. Kotlin does not aim to be unique—instead, it draws inspiration from decades of language development. It exists in variants that target the JVM (Kotlin/JVM), JavaScript (Kotlin/JS), and native code (Kotlin/Native).

Kotlin is managed by the Kotlin Foundation, a group created by JetBrains and Google, that is tasked with advancing and continuing development of the language. Kotlin is officially supported by Google for Android development, meaning that Android documentation and tooling is designed with Kotlin in mind.

Certain Android APIs, like Android KTX, are Kotlin-specific, but most are written in Java and can be called from either Java or Kotlin. Kotlin's interoperability with Java is core to its growth. It means that you can call into Java code from Kotlin and vice-versa, leveraging all of your existing Java libraries. Kotlin's popularity results in a nicer development experience on Android, but development of the Android framework continues with both Kotlin and Java in mind.

2.2 Facebook API

API is the acronym for Application Programming Interface, which is a software intermediary that allows two applications to talk to each other. Each time you use an app like Facebook, send an instant message, or check the weather on your phone, you're using an API.

In our application, we used a Facebook API that allowed us to use the interface and user data to log in instead of starting from scratch.

2.3 Cookies

Cookies are usually small text files, given ID tags that are stored on your computer's browser directory or program data subfolders.

Cookies are created when you use your browser to visit a website that uses cookies to keep track of your movements within the site, help you resume where you left off, remember your registered login, theme selection, preferences, and other customization functions.

The website stores a corresponding file(with same ID tag)to the one they set in your browser and in this file they can track and keep information on your movements within the site and any information you may have voluntarily given while visiting the website, such as email address.

Cookies are often indispensable for websites that have huge databases, need logins, have customizable themes, other advanced features.

Cookies usually don't contain much information except for the url of the website that created the cookie, the duration of the cookie's abilities and effects, and a random number. Due to the little amount of information a cookie contains, it usually cannot be used to reveal your identity or personally identifying information. However, marketing is becoming increasingly sophisticated and cookies in some cases can be aggressively used to create a profile of your surfing habits.

In our application, we used cookies to save the login data for the next time instead of typing it again, and you can see the cookie file in the Android Studio through the path (Device file explorer: data\data\com.example.facebook_test\shared_pers\MyUserName.xml).

2.4 Session

A session is the total time devoted to an activity. In computer systems, a user session begins when a user logs in to or accesses a particular computer, network, or software service. It ends when the user logs out of the service, or shuts down the computer. A session can temporarily store information related to the activities of the user while connected. A session cookie is used in web pages for storing information in case the user leaves the web page or closes down their Internet browser. For example, this is one way a website can remember what is in your shopping cart if you leave and come back. In this application, the session will end automatically after 5 seconds had passed from the process of logging in with the email and password, not the Facebook account

3. Conclusion

Most of the large applications use API technology, which provides them with an environment from a different system for them to work with, as it simplifies the process instead of starting from scratch.

Also, the idea of cookies facilitating operations within the site or application instead of reloading the page or rewriting the same data every time.

Notes:

- 1- This app has been uploaded to the GitHub at this link { https://github.com/Ahmedovic04/FaceBook_Test1 }
- 2- While installing the APK file, grant your phone permission to install from external sources.
- 3- Sometimes an error occurs in the Facebook account login process. If you encounter this problem, uninstall the Facebook application and try again.

4. References

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