

# MobServ Lab Report

## Android Preferences

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# 1 Questions

## 1.1 How the Preferences class is called?

The preferences class in an *Inherited class* from the “*android.preference.PreferenceActivity*” class.

## 1.2 You may be notified that user credentials are not actually reset and that the notification is not received. How can this be done in the code?

We introduced our piece of code after *reset\_preferences()* is called in *openDialog()*. We had no issue with the notifications not being received or the credentials not resetting.

## 1.3 Implement exit function for the button3 to exit the application.

*See implementation.* Our button3 is defined as “exit\_preferences” for better understanding.

## 1.4 There are some decrypted functions. Some of them are due to the notion of Fragment. Explain how to redesign the app to work with fragment

Fragments are pieces of User Interface (UI) that have their own life cycle and can be easily managed by the application to adapt to various screen sizes and formats. One way our app could be redesigned would involve defining the menu as its own fragment, and the buttons as another one.

The former would become the navigation fragment (top of the screen, maybe side on larger devices) and the later would stand either by its side or at the bottom of it.

## 1.5 Update the app icon, use any icon of your choice (see your notification icon change as well

*See application*

We changed the app icon to a lock. We indeed notice that the notification icon has changed too.

## 1.6 Give example of applications where such preferences are useful?

The notion of preferences is particularly useful in some contexts such as :

- Mobile Data usage
- Font size

- Preferred theme
- ...

**1.7 Are the preferences saved in a persistent or volatile storage? In each case, explain where they are actually stored.**

Preferences are saved in a persistent state through the preferences intent. This makes sense since a shutdown of the app or device should not reset the preferences.

Shared Preferences store the data in internal memory (Flash) but it also keeps a copy in the RAM. As such, great care should be given to what is actually stored as preferences since it could lead to **OutOfMemory** RAM errors.