BIM306 Operating Systems

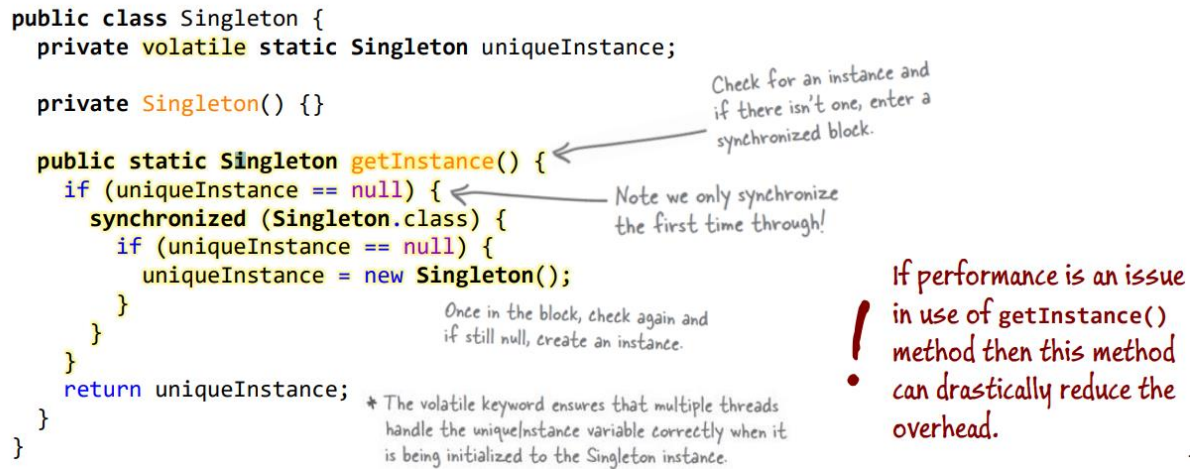
Project-3

Singleton Pattern

Due: May 14, 2019

Background

The Singleton pattern ensures a class has only one instance, and provides a global point of access to it. One of the pattern implementation is double-checked locking (http://ceng.eskisehir.edu.tr/abilge/BIM492/icerik/05%20-%20Singleton%20Pattern.pdf). Implementation of the pattern in object-oriented programming is given:



Project Definition

In the project, first, you are asked to implement getInstance method respect to the double checked locking using with C programming language (POSIX library) in to the given template code. Also, you should use semaphore. This will not be same as object-oriented version naturally, but the idea is the same.

Second, you should explain your code how to implement step by step.