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-  CS-E4110

 Course materials

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Assignment description

My submissions (1/10)

Atomic Integer -- Atomic operation basics using Atomic Integer.

Atomic Integer

One issue that needs to be noted when implementing concurrent programs is memory consistency and errors associated with it. We say memory consistency error occurred when multiple execution units operating on a shared memory have an inconsistent view of a given shared variable. There are a lot of reasons why these inconsistencies happen which include caching and compiler optimizations. The key to avoiding memory consistency problems is to understand and ensure happens-before relationship such that if a happens-before b, the effects of a will be visible to b.

Code

Download the assignment template [here](#)

Task

In this exercise, we implement a simple atomic integer; an integer value that may be updated atomically and provides a happens-before relationship when reading and writing an integer value.

Hint

You can use synchronized keyword to implement happens-before. [Visit the basic idea from here.](#) Note also that synchronization is one of the low-level concurrency mechanisms that Scala inherited from Java.

 **SimpleAtomicInteger.scala**

Choose File

No file chosen

Submit

Earned points

25 / 25



Exercise info

Assignment category
Programming exercises

Your submissions
1 / 10

Deadline
Friday, 12 November 2021, 14:00

Late submission deadline
Friday, 19 November 2021, 14:00
(-30%)

Total number of submitters
59

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