Java Memory Management

This deep dive into Java memory management will enhance your knowledge of how the heap works, reference types, and garbage collection.

by Constantin Marian · Jan 07, '18 · Java Zone · Tutorial

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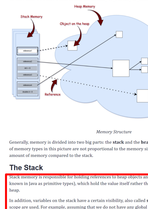
You might think that if you are programming in java, what do you need to know about how memory works? Java has automatic memory management, a nice and quiet garbage collector that works in the background to clean up the unused objects and free up some memory.

Therefore, you as a java programmer do not need to bother yourself with problems like destroying objects, as they are not used anymore. However, even if this process is automatic in java, it does not guarantee anything. By not knowing how the garbage collector and java memory is designed, you could have objects that are eligible for garbage collecting, even if you are no longer using them.

So knowing how memory actually works in java is important, as it gives you the advantage of writing high-performance and optimized applications that will remove your code bottlenecks. On the other hand, when you find yourself in a bad situation, you will be able to quickly find the memory leak.

To start with, let's have a look at how the memory is generally organized in java:


Heap Memory
Stack Memory
Object on the heap
Method
Method
Method

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