

# Why algorithm execution time is different for every time?

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Execution is based on CPU and JVM performance as well.

- Your CPU may keep requested data in caches. Accessing memory in a cache is faster than using other memory, this can be the reason sometimes.
- Your OS may cache files in memory rather than loading them from disk. Obviously this hasn't happened the first time you run a program. Subsequent runs should be faster.
- And Garbage collection may halt the execution at any time to analyze the memory. And there are many settings that can affect JVM performance. Considering these, we will get different execution time even we execute the same code.