## MULTITHREAD-1 - Password hash cracking

**Conversation**

Find the password of the following MD5 hash value: 4fd0101ea3d0f5abbe296ef97f47afec

Use the brute-force approach and assume that the password consists of lowercase letters from the English alphabet. Run the calculation on multiple threads in order to get the result faster.

Codebase can be found in **HashCalculator.java**

To use the HashCalculator class, download the Guava library here:

Jar file: <http://search.maven.org/remotecontent?filepath=com/google/guava/guava/21.0/guava-21.0.jar>

Maven dependency: <https://mvnrepository.com/artifact/com.google.guava/guava/21.0>

**Confirmation**

The application should run multiple threads to try out every possible combination.

The threads should run in parallel to achieve the best performance on the CPUs and it must be ensured that every combination is only tried once. (If one thread already tried a combination, the other threads should not try it again).

Once the password is found all threads must stop.

At the end the program should output the result and the time it took to crack the code.