

Work in a group of **two** to solve the following:

- 1- Write a small Java application to ask a user to provide a piece of text. The text should be written in English and may contain a multiple paragraphs.
- 2- Create a cached thread pool. The size should be equivalent to the number of logical cores in your system.
- 3- Create another thread in your application; name it StatThread.
- 4- Equally split the text provided in Step 1 among the threads in the thread pool. Each thread should count the number of times English articles (A, An and The) have been used. Once a thread finishes the counting, it should send its result to the StatThread.
- 5- When the StatThread receives a result, it should be printed in the terminal as soon as possible.

**Notes:**

- 1- Make your application as efficient as possible in terms of computation. For instance, avoid having infinite loops.
- 2- Any data structure used in your application should be thread safe.
- 3- Any data passed between the threads should also be thread safe.

- 1 Not using Scanner for Step 1.
- 2 The Cached Thread Pool has not been created correctly.
- 1 The StatThread has not been created correctly.
- 1 Not splitting the user input equally between the threads in the cached thread pool.
- 2 Not finding the English articles correctly. Not ignore case sensitivity for the input letters.
- 1 Not sending the data to the StatThread. This operation is not thread-safe or missing.
- 1 The data structure used among the threads is not thread-safe.