

# Java Multithreading Assignment

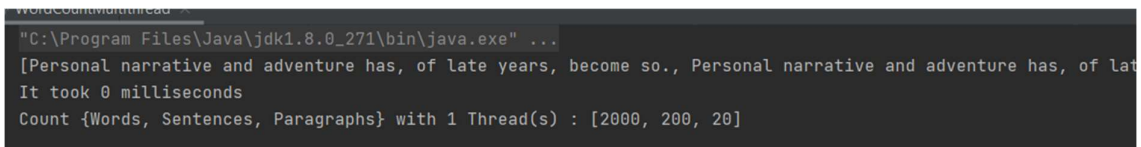
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1. Created a CountThread which performs all the functions such as word, sentence and paragraph count and a Main function which creates multiple threads by splitting the total file into chunks based on the number threads used and join them.

(Check GitHub For the source codes)

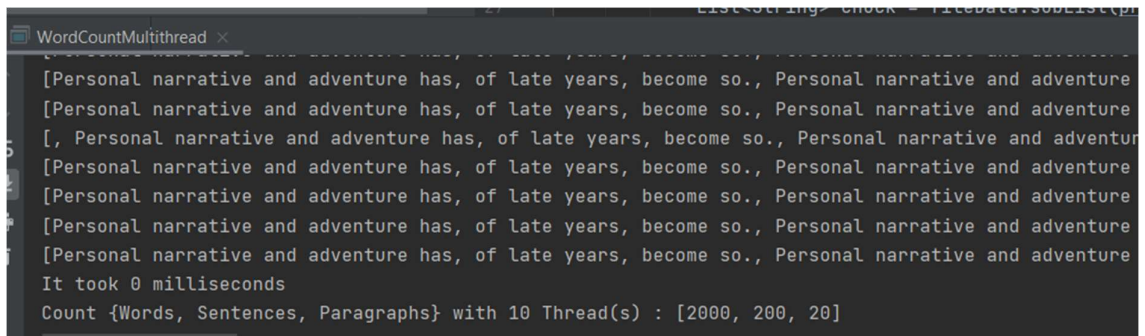
2. Created a text file word\_1.txt with known amount of lines, words and para to validate the working of the functions

a. Single thread performance:



```
WordCountMultithread
"C:\Program Files\Java\jdk1.8.0_271\bin\java.exe" ...
[Personal narrative and adventure has, of late years, become so., Personal narrative and adventure has, of late
It took 0 milliseconds
Count {Words, Sentences, Paragraphs} with 1 Thread(s) : [2000, 200, 20]
```

b. Multithreaded performance:



```
WordCountMultithread
[C:\Program Files\Java\jdk1.8.0_271\bin\java.exe] ...
[Personal narrative and adventure has, of late years, become so., Personal narrative and adventure
[Personal narrative and adventure has, of late years, become so., Personal narrative and adventure
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[Personal narrative and adventure has, of late years, become so., Personal narrative and adventure
[Personal narrative and adventure has, of late years, become so., Personal narrative and adventure
[Personal narrative and adventure has, of late years, become so., Personal narrative and adventure
[Personal narrative and adventure has, of late years, become so., Personal narrative and adventure
It took 0 milliseconds
Count {Words, Sentences, Paragraphs} with 10 Thread(s) : [2000, 200, 20]
```

(PTO)

3. Created words.txt with undefined amount of data by copy pasting book.txt from the given assignment

- a. Single thread performance

```
WordCountMultithread x
"C:\Program Files\Java\jdk1.8.0_271\bin\java.exe" ...
It took 804 milliseconds
Count {Words, Sentences, Paragraphs} with 1 Thread(s) : [4344240, 472580, 29941]
```

- b. Multithreaded performance

```
"C:\Program Files\Java\jdk1.8.0_271\bin\java.exe" ...
It took 254 milliseconds
Count {Words, Sentences, Paragraphs} with 10 Thread(s) : [4344240, 472580, 29941]

Process finished with exit code 0
```