

OOSD 3 Assignment 04 [20%]

Due Date: 5 May @ 11.59pm

Write a program that represents memorising words from the English language that start with the letter A.

To solve this problem, a thread pool is required with a fixed size (more than one thread). When a thread runs, it reads and removes a word from the provided “words.txt” file and then after some time (sleeps) writes it to the “memory.txt” file (you will need to create this file). The threads in the pool are started and they will continue to run until all the words have been transferred.

It is important that your code is thread safe to prevent words from being lost or duplicated in both files.

Your main() method should create a thread pool of a fixed size and have threads running until all the words have been transferred.

You are required to use the use the ExecutorService and the Executors classes, Threads and Java IO to complete this assignment.

This is a useful link: <https://www.journaldev.com/1069/threadpoolexecutor-java-thread-pool-example-executorservice>

Submission instructions

You are required to submit your code and both text files along with a short video (3 minutes long) which shows your code running, your text files updating and where you explain how you went about solving the problem.

Your code needs to follow the Java coding standard and have relevant comments.