

Northern Michigan University (Marquette Co, MI)

CS 422-01-25W: Algorithms: Design And Analysis

Program 4

Due: Monday 24 March 2025 9:00 A.M. EdT

Create a folder called “PG4” in the top level of your CS422-01-25W folder. Place all files pertaining to this assignment into the top level of your PG4 folder. Place a (possibly empty) file called “DONE” into this folder when you are ready to have your programs graded. The only files you need to turn in are the .java files. Please don't turn in any files other than these!! The main file must be named PG4.java .

Write the following program in Java:

Your program should prompt the user for the pathname of a file on your hard drive. It should then prompt the user for the record size.

Your program should interpret the file as a flat file of records all of whom have the record size entered above. You will QuickSort the file (using the QuickSort as described in class) so that the records are sorted. You are not allowed to have more than two records from the file in memory at any time. You cannot create another file to help you out. Sort the records in place in the file.

Enter filename: **C:\Users\apoe\animals.txt**

Enter record size: **3**

If this were the file originally:

COWBATDOGRATEMU

After running, the file would be:

BATCOWDOGEMURAT