General problems

Bear in mind the primary goal is to design computational efficient solutions to the problems below, they should be written in C Language and are intended to be run in a single-threaded environment under Linux.

Specific features of C, which are appropriate to code the solutions to these problems, will be discussed in tutorials. You should, however, develop your own solutions first.

1. Write a program that reads in succession several text files `text#.txt` whose names are provided in the command line and prints for each of the supplied files a listing of the total number of words and the number of words having a specific vowel among its letters.

   NOTE - The character encoding used in UTF-8.

2. Write a program that reads a data file whose name is provided in the command line and containing a sequence of integers and sorts them in increasing order.

   NOTE - The sorting algorithm to be selected should have good parallel decomposition properties.