

MAT 115E Introduction to Programming Language

Homework Assignment / Spring 2024

1 Question 1

Write a C program that realizes the following items:

- Initialize an integer array with your student number. Write the even **digits** into *even.txt* and the odd **digits** into *odd.txt*, as a single line, separated by spaces. (First, you should create these files.)
- In each file, calculate the sum of the digits, and append this sum to the end of the line, separated by a space.
- You are given a text file *text.txt* in the homework folder on Ninova. Read the string from *text.txt*. Convert each letter to its ASCII value and keep them in a new array. (You should only take letters. Ignore punctuation and spaces.)
- Write the even **numbers** in this array into *even.txt* and the odd **numbers** into *odd.txt*, as a new line, separated by spaces.

Beware: In the end, there should be 2 lines created in each file *even.txt* and *odd.txt*.

First line: Digits from your student number and their sum.

Second line: ASCII values obtained from the string.

2 Question 2

- Count and display the number of vowels in *text.txt*.
- Write a C function to make the following replacements in the text in *text.txt*. Write the new text in a file *newtext.txt* that you create.

$a \rightarrow e$

$u \rightarrow o$

The function should take the string from *text.txt* as an argument. It should make the above replacements and write the new string in to the new text file that it creates.

Files To Submit

You should be submitting 4 files: C Source File for your Code, *even.txt*, *odd.txt*, *newtext.txt*.

Put them in one folder and upload them as a single file in .zip / .rar format.

You are responsible for making sure that your code is ready to be compiled and your texts are readable.