ANKARA UNIVERSITY
COMPUTER ENGINEERING DEPARTMENT
SUMMER TERM-COM1002
Final– Q2

Name your files as studentNo.c (12345678.c). Do not make any additions or deficiencies in the outputs (outputs produced by the programs) other than those requested from you. Do not make any changes in outputs such as extra spaces, going to the bottom line. Your codes will be passed through the copy program and the legal process will be initiated against the student who have similarity rates higher than the determined rate. For this reason, the assignments you upload should be unique to you.

You can compile your codes as follows:
gcc studentNumber.c
./a.out

Make sure your program is running in Ubuntu environment. Do not forget that there may be programs that run on a different operating system but generate errors or warnings in Ubuntu. Objections to the evaluations made due to such errors will not be accepted. Please carefully review the sample input and output files provided for the correct output format.
To check the accuracy of your program, you need to perform the following operations.

1) gcc studentNumber.c
./a.out> myOutput1.txt
This command saves the output of your program to myOutput1.txt file.
2) diff myOutput1.txt output1.txt

Using this command, compare your own output with the required output. If there is no warning on the screen after entering this command, your program is working correctly for these values. If you see a warning in the command system after entering the command, this indicates a problem with your output, you need to correct your code. Test your program for different inputs that you will create yourself. The input files given to you and the input files used during the evaluation will differ.

QUESTION:

Write a function that returns the set of elements larger than the neighboring elements to the right and left of an array of elements received from the user. The number of elements and elements will be taken from the user.

For example;

myfunction([4, 5, 2, 1, 4, 9, 7, 2]) ➝ [5, 9]

Element 5 has neighbors 4 and 2, both less than 5.

Element 9 has neighbors 4 and 7, both less than 9.

myfunction([1, 2, 1, 1, 3, 2, 5, 4, 4, 4]) ➝ [2, 3, 5]

myfunction([0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]) ➞ []

If there is no element larger than the left and right in the array as in this example, print **NO** to the screen.

Note 1: The result you find (your output) should be ordered from smallest to largest. Examine the input/output examples given to you carefully.

Note 2: Finding the set of elements larger than the elements to the right and left must be done with the function. If the function is not used, even if your question is correct, it will not be considered valid.