Write a program that sorts a set of strings based on their length (lexicographic order). The shorter the length, the higher is the order of the string. Strings of equal lengths are then ordered alphabetically. The case of the characters in each string should not matter(i.e. all strings should be converted to lowercase first before sorting). It is also assumed that each string will contain only letters. Output on the screen the sorted strings together with their lengths and addresses.

The input and output file must be specified by the user as the command line arguments passed in to the `main()` function when the program is invoked. The first value that will be read from an input file will represent the number of strings and it will be followed by the strings to be sorted. The sorted strings together with their lengths and addresses should be displayed on the screen and written in an output file.

Implement the set of strings as an array of pointers and a function that will pass this strings as pointer parameters must be defined. You must also **use pointer offset notations** in your operations.

Sample run of the program:

```
$ ./pe6.exe  strings.txt  sorted.txt
```

Sample content of "`strings.txt`"

```
10

Variable
Computer
Science
student
Programming
char
ARRAY
int
functiON
String
```

Sample output on the screen and output file "`sorted.txt`"

```
STRING          ADDRESS         LENGTH
-------------------------------------------
int             0x2437           3
char            0x2440           4
array           0x2532           5
string          0x2236           6
science         0x3673           7
student         0x2890           7
computer        0x4562           8
function        0x2890           8
variable        0x7653           8
programming     0x2923          11
```