

CS240 Homework 4

Input: A list of strings, separated by a semicolon, ending by EOF. A string can contain any character, provided it is not a semicolon. For example, a string can contain the “new line” character ‘\n’.

Output: The list of strings in the ascending order of length. Each string is printed on a separate line. There is no new-line character ‘\n’ on the last line.

Your code must store the list of strings as a linked list of objects, each put in a “struct”

```
struct STRING {
    char *s;
    struct STRING *next;
}
struct STRING *list;
```

and implement the following functions:

- void get_strings(...): the function reads from “stdin” a list of strings and stores it in a linked list given as input somehow to this function
- void sort_strings(...): this function is to ascendingly sort strings in a linked list given as input somehow to this function; at the end of the function, the list will be updated
- void show_strings(...): this function prints the strings stored by a linked list given as input somehow to this function

Sample input/output

No	Input	Output
1	abc;def;1234;12	12↵ abc↵ def↵ 1234
2	def;abc;12;1234	12↵ def↵ abc↵ 1234
3	Abc;;11;;	↵ ↵ ↵ 11↵ Abc
4	abc;;1234;	↵ ↵ abc↵ 1234
5		
6	;;;	↵ ↵ ↵
7	a↵	a↵
8	a↵	123↵

	↵ ↵ ;123	a↵ ↵ ↵
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