

SORTES C test Nov. 10th 2010

The elements of a linked list include a pointer to the next element in the list and a string. You are asked to implement in C two functions, one to obtain a copy of the n^{th} string of the list, and the other to insert a string in the n^{th} position in the list. Be sure to check that the parameters you get are meaningful.

You must provide the C code to define

- a structure called `elem` including a pointer to the next element of the list and a pointer to a string

You must also provide the declaration and the definition of the following functions:

- `get_string_from_list`: receives as parameters a pointer to the first `elem` of the list and a strictly positive integer `n`, giving the position in the list of the string of which a copy is to be returned. The function returns -1 in case of failure
- `insert_string_in_list`: receives as parameters a pointer to the first `elem` of the list, a pointer to a string and a strictly positive integer `n`, giving the position in the list where to insert the string. The function returns the position of the inserted string in case of success and -1 in case of failure.