

Assignment 6: Strings

The dictator of the republic of Hartastan wants your help in creating a text censorship tool. You should implement the following functions:

- **void apply_censorship(char text[], const char forbiddenStrings[][SIZE]);**
The function gets as input a text string and an array of forbidden words which ends with empty string ("" – just for marking the end of the array). The function replaces every instance of forbidden word with asterisks (*) in the length of the original word no matter if it uses capital or small letters.
- **double str_to_double(char str[]);**
The function gets as input a string representing a real number, and returns the number represented by the string (as a value of type double). For example, for the string "-2356.12" the returned value is -2356.12. The number may be positive or negative, and may include digits after the decimal point. For example: "0", "0.3", "-0.3", "145.63"

Comments:

- You may assume the string is at most 100 characters, and that it can fit inside a variable of type double.
- Don't use functions from stdlib.h, or any function that "does the job for you" (atoi() or atof()).
- Assume the input is valid and represents a valid number.

Write a main function which demonstrates the use of these functions (no need for input from the user). The function will demonstrates both the use of the censorship tool and the converting tool.

Running example:

```
#define SIZE (256)
const char forbidden_strings[][SIZE] = {"flower", "blo", "plant", ""};
char text[] = "A flower, sometimes known as a bloom or blossom, is the reproductive structure found in flowering plants. PLANTS ARE COOL.";
char num_str[] = "-2356.12";
double num = str_to_double(num_str);
apply_censorship(text, forbidden_strings);
printf("CENSORED TEXT: %s\n", text);

printf("num = %lf", num);
```

Output:

CENSORED TEXT: A *****, sometimes known as a ***om or ***ssom, is the reproductive structure found in *****ing *****s. *****S ARE COOL.

Num = -2356.12