

CS Basics - Exercises

Strings and linking with C

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1 Link with C

Write a hello world program using the C `put()` function.

You must initialize a string terminating with 0 and give its address as a parameter to the function `put()`

For the compilation, use NASM, for the linking use `gcc -no-pie` (not `ld`).

Do not forget to change `_start` into `main`.

2 Write a program: Logarithm

- That asks the user to type a number (using the C library function `printf()`)
- That reads the number from the input into memory (using the `scanf()` C-library function)
- That computes the logarithm of the number
- That prints out (using `printf()`) the string: “The logarithm of

3 Write a program for the exponentiation

- It takes two arguments x and y and prints the result x^y on the standard output

```
$ ./exponentiate 10 5
```

The result 10 exponent 5 = 100000

- You must first read the arguments from the console
- Perform the multiplication
- And then output the result.

Use procedures and where possible your extended Assembly vocabulary.