Coding Assignment 0

ECS 122A Algorithm Design and Analysis

About This Assignment

- The purpose of this assignment is to familiarize you with the auto grader system on Gradescope.
- Information about the system can be found on the lecture note of week 1 (logistics).
- This assignment includes two programming problem: `Floor Division` and `Saying Hello`.
- Please download the file `PA0.zip` from Canvas. It contains all sample test cases for the two problem.
- Please submit your solution on Gradescope. Your solution will be evaluated on the sample test cases and a set of hidden test cases.

1 Floor Division

Problem Description

Please write a program that, given two integers a and b, prints $\lfloor a/b \rfloor$. In the case where $b = 0$, your program should output "`division by zero!!`" instead.

Input

The only line of the input contains two integers a and b ($0 \leq a, b \leq 10^{18}$), separated by a space.

Output

If $b = 0$, output "`division by zero!!`" (without quotes) in a single line. Otherwise, output $\lfloor a/b \rfloor$ in a single line.

Test Cases

Your program will be evaluated on 6 sample test cases and 6 hidden test cases. The first three samples are given below. The other samples can be found in `PA0/Floor Division/test_data/`.

Sample Input 1:

```
6 2
```

Sample Output 1:

```
3
```

Sample Input 2:

```
1 5
```

Sample Output 2:

```
0
```

Sample Input 3:

```
1 0
```

Sample Output 3:

```
division by zero!!
```

Submission Guideline

Write your program in either C, C++ or Python **in a single file**. Name your file `FloorDivision.ext` where `ext` is `c`, `cpp` or `py` depending on your language. Submit the file on Gradescope. The time limit on Gradescope is 1 second for C/C++ and 3 seconds for Python. You can make at most 10 submission attempts.

2 Saying Hello

Problem Description

Shane is preparing for his first lecture at UC Davis. His plan for the lecture is quite simple: He will say hello to each student on the roster and then call it a day. Shane is very nervous about the lecture and therefore he wants you to prepare a script for him. Can you write a program that, given the roster, outputs the script for Shane?

Input

The input contains the names of Shane's students. Each name is a sequence of English letters. In particular, no name in the input contains any special characters such as hyphens (-) or white spaces. The names are separated by several white spaces and new line characters. The input contains at most 50 names, and each name contains at most 50 letters.

Output

For each name S in the input, output a line "`Hello` S!" (without quotes).

Examples

Your program will be evaluated on 6 sample test cases and 6 hidden test cases. The first two samples are given below. The other samples can be found in `PA0/Saying Hello/test_data/`.

Sample Input 1:

```
Ben Srikkanth    Anna Additya Ben
```

Sample Output 1:

```
Hello Ben!
Hello Srikkanth!
Hello Anna!
Hello Additya!
Hello Ben!
```

Sample Input 2:

```
Linda   Tim

Mcdonald
```

Sample Output 2:

```
Hello Linda!
Hello Tim!
Hello Mcdonald!
```

Submission Guideline

Write your program in either C, C++ or Python **in a single file**. Name your file `SayingHello.ext` where `ext` is `c`, `cpp` or `py` depending on your language. Submit the file on Gradescope. The time limit on Gradescope is 1 second for C/C++ and 3 seconds for Python. You can make at most 10 submission attempts.