

# Normo Vs. The Slime Queen

## Objective:

- Function Templates

## Scenario:

After suffering a horrific defeat at the slime fields, the slimes have captured you and taken you hostage into their Cave Den. In order to escape, Normo has upgraded his trick ability to be able to swap the souls of his enemies. Because slimes can be integer based, string based, or boolean based, you will need to write a template function that will allow you to swap the souls (or values) of any two slimes.

## Requirements:

You must implement 1 (one) templated function which:

- Returns void
- Has two parameters, each of type T
- Will swap the values of those 2 parameters
- Is called "trick"

This function must be documented with a description, a pre-condition, and a post condition. With template functions, the function definition goes with the function prototype above main.

In your main function, test your new trick function with 2 integers, 2 booleans, and 2 strings

## Program Flow

- Take 2 integers from the user
- Output them to the user, perform a trick on them, and output them again
- Do the same with booleans and strings

## Submission

- Submissions must be made through git. If you need a refresher:  
    git clone your repository.  
    cd into your repository.  
    Write all of your code in your repo.  
    When you're done, git add .  
    git commit -m "A meaningful commit message that isn't a word for word replica of what I'm typing here"  
    git push  
    Double check gitlab to make sure your submission went through.

## Sample output

Give me 2 integer based Slime souls

4 19

The soul values are 4 and 19

-Performing a trick-

The soul values are 19 and 4

Give me 2 boolean based Slime souls

0 1

The soul values are 0 and 1

-Performing a trick-

The soul values are 1 and 0

Give me 2 string based Slime souls

Jeff Bezos

The soul values are Jeff and Bezos

-Performing a trick-

The soul values are Bezos and Jeff

## Notes:

- You do not need to range check your inputs
- Make sure to write a header with your name, date, and purpose on it.
- The file you submit to git must be a .cpp file.
- Your program output does not need to match mine exactly. The input I give in the sample, however, must work. This means that input must be taken in the same order as the sample, and the same data types must be accepted (so if I input a string in the sample, make sure your program accepts a string value there)
- If you are unsure about function templates, this link has some useful information:  
<https://www.cplusplus.com/doc/oldtutorial/templates/>