

# The George Washington University

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## **Advanced Software Paradigms (CSCI 6221.10)**

Homework Assignment #2

Date: 7 February 2024

### **Submitted By:**

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### **Submitted to:**

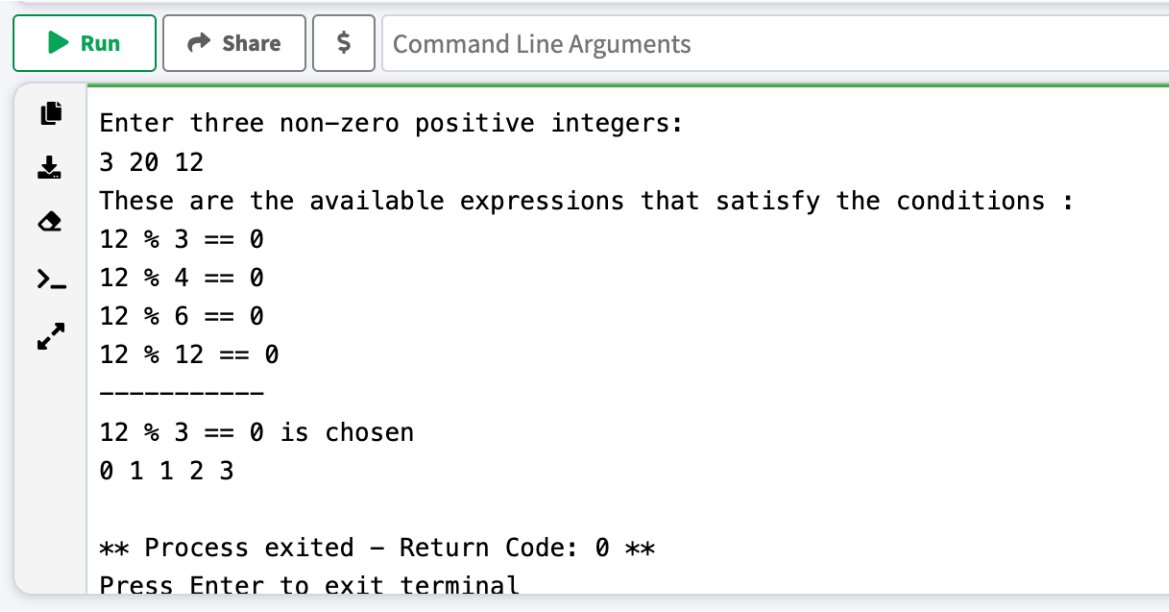
Professor Yih-Feng Hwang

## Steps for execution:

1. The provided program is written in **Python**. To run it, use any online Python compiler, for example: <https://www.online-python.com/>
2. Copy the code from the attached source code .txt file and paste it into the code area in the online compiler.
3. Click the “Run” button in the compiler.
4. Review the output/result displayed by the compiler, as illustrate in Figure 1.

## Screenshots:

1. When the input is correct and can generate various Loop Guarded Commands the output of the program is:

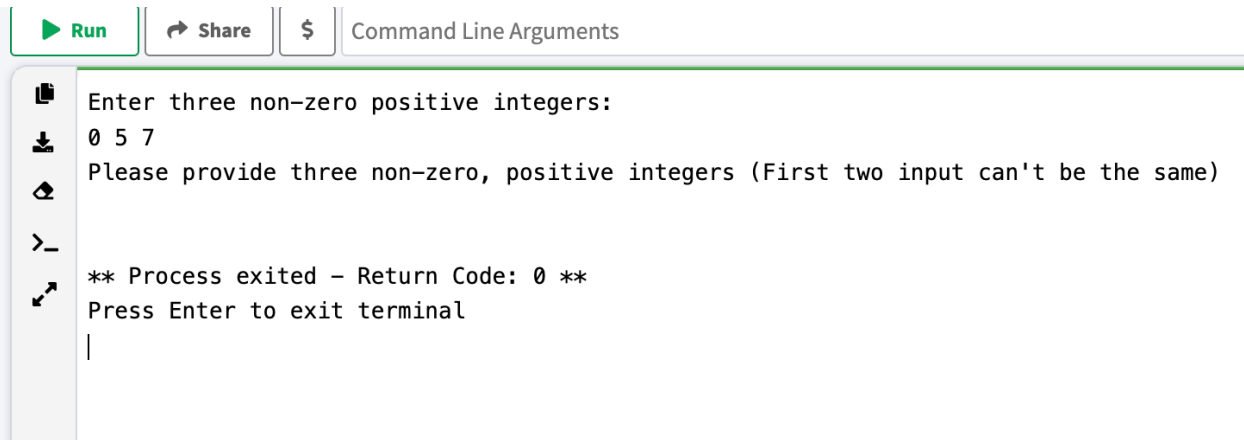


```
Enter three non-zero positive integers:
3 20 12
These are the available expressions that satisfy the conditions :
12 % 3 == 0
12 % 4 == 0
12 % 6 == 0
12 % 12 == 0
-----
12 % 3 == 0 is chosen
0 1 1 2 3

** Process exited - Return Code: 0 **
Press Enter to exit terminal
```

*Figure 1: Result when input is correct*

- When the input is incorrect, the output of the program is:



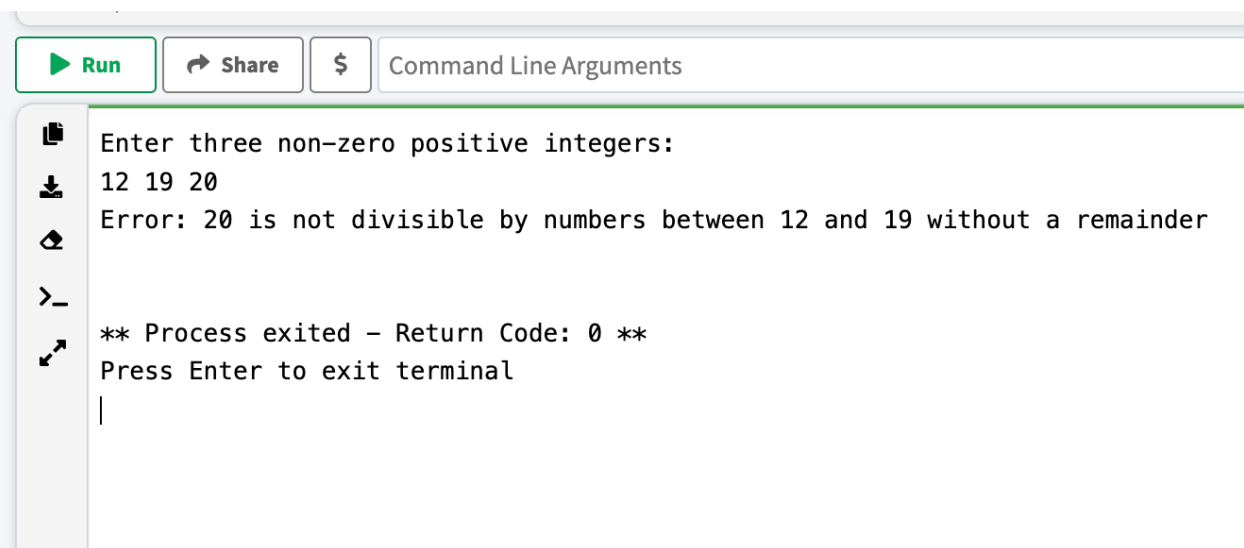
A terminal window with a top bar containing 'Run', 'Share', and 'Command Line Arguments' buttons. The terminal output shows the prompt 'Enter three non-zero positive integers:', followed by the input '0 5 7'. The program responds with 'Please provide three non-zero, positive integers (First two input can't be the same)'. The terminal then shows the exit message '\*\* Process exited - Return Code: 0 \*\*' and 'Press Enter to exit terminal'.

```
Enter three non-zero positive integers:
0 5 7
Please provide three non-zero, positive integers (First two input can't be the same)

** Process exited - Return Code: 0 **
Press Enter to exit terminal
```

*Figure 2: Result when input is incorrect*

- When the input conditions are met but no the third input does not satisfy any expression, the output of the program is:



A terminal window with a top bar containing 'Run', 'Share', and 'Command Line Arguments' buttons. The terminal output shows the prompt 'Enter three non-zero positive integers:', followed by the input '12 19 20'. The program responds with 'Error: 20 is not divisible by numbers between 12 and 19 without a remainder'. The terminal then shows the exit message '\*\* Process exited - Return Code: 0 \*\*' and 'Press Enter to exit terminal'.

```
Enter three non-zero positive integers:
12 19 20
Error: 20 is not divisible by numbers between 12 and 19 without a remainder

** Process exited - Return Code: 0 **
Press Enter to exit terminal
```

*Figure 3: Result when input does not satisfy any expression*