

FYP GitHub Workshop Lab

This lab is about the basic features (**Pull requests, merging, branches, commits**) of GitHub. Try to complete every task in this tutorial.

General Rundown:

1. Create a GitHub account for everyone
2. Create a repository for this lab
3. Initialize the repository with the base code
4. Work on the functions using GitHub's features

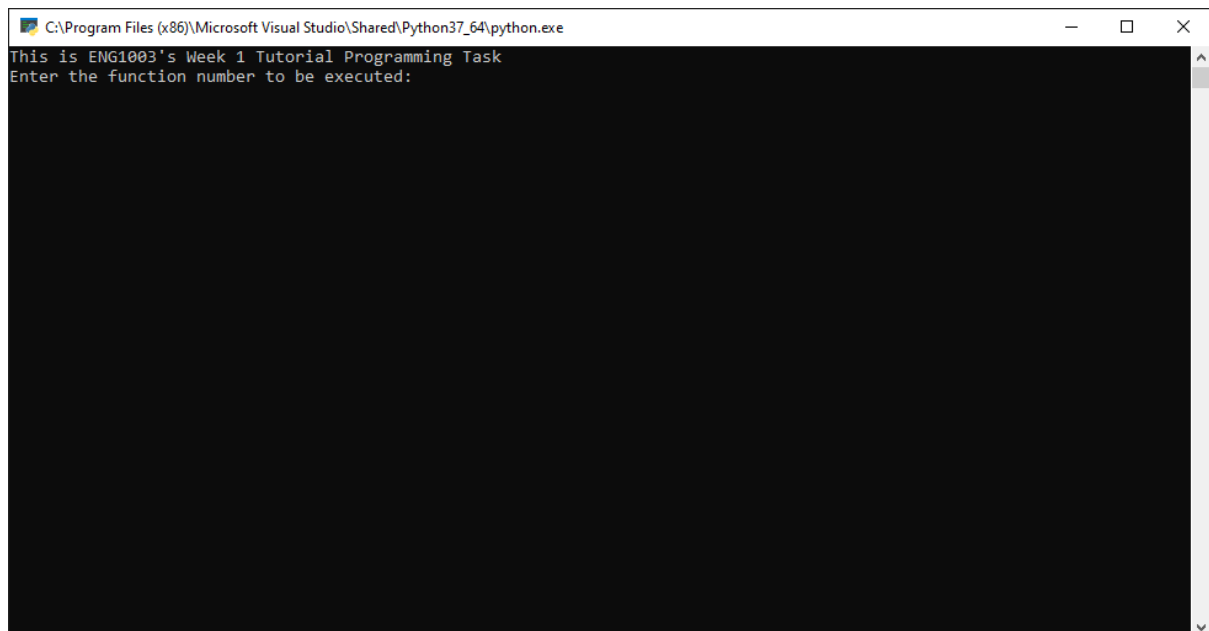
Programming Task (C++/Python)

Complete the individual parts and combine them later in GitHub's website. The Group needs to complete a programme which would be able to run multiple different simple functions.

Main Function:

Create a main function that could:

1. Allow users to input an integer
2. Execute a corresponding function according to the input

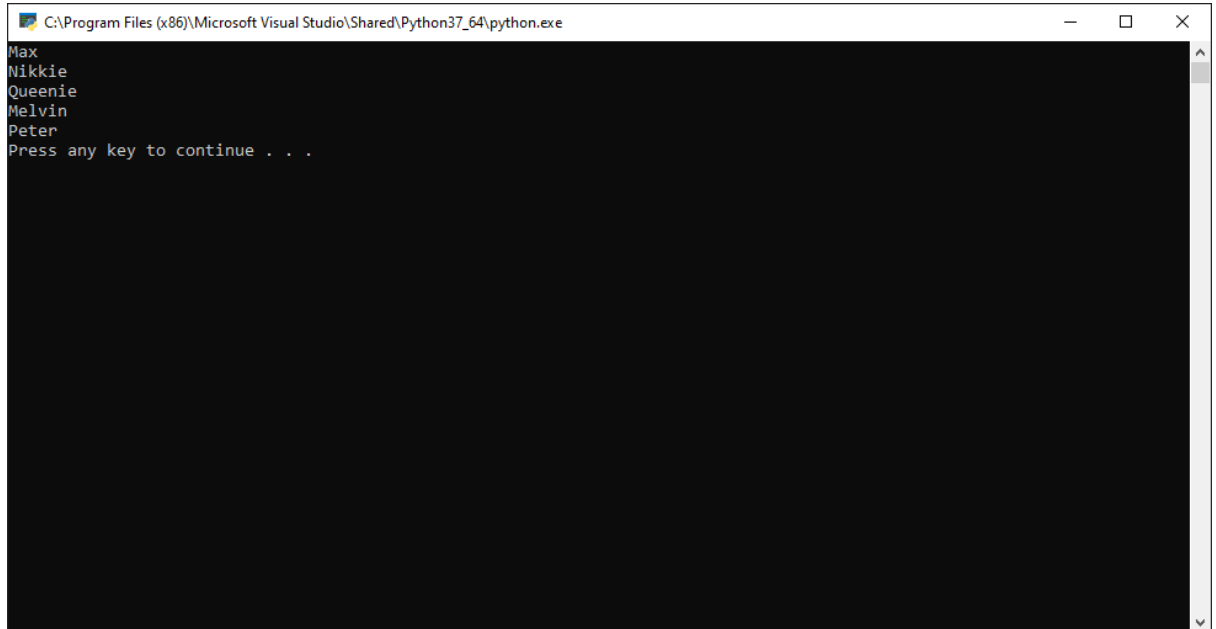


```
C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe
This is ENG1003's Week 1 Tutorial Programming Task
Enter the function number to be executed:
```

Function List:

1. Printing Members' Names

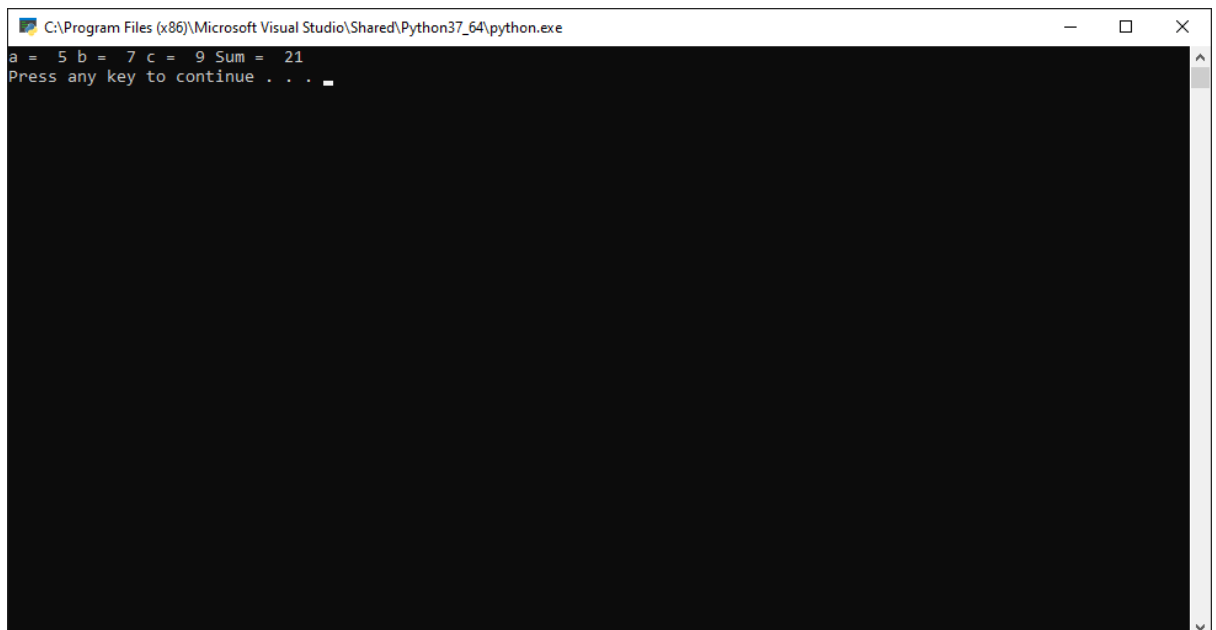
Create a function that will output names of all group members in separate lines.



```
C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe
Max
Nikkie
Queenie
Melvin
Peter
Press any key to continue . . .
```

2. Adding 3 Variables

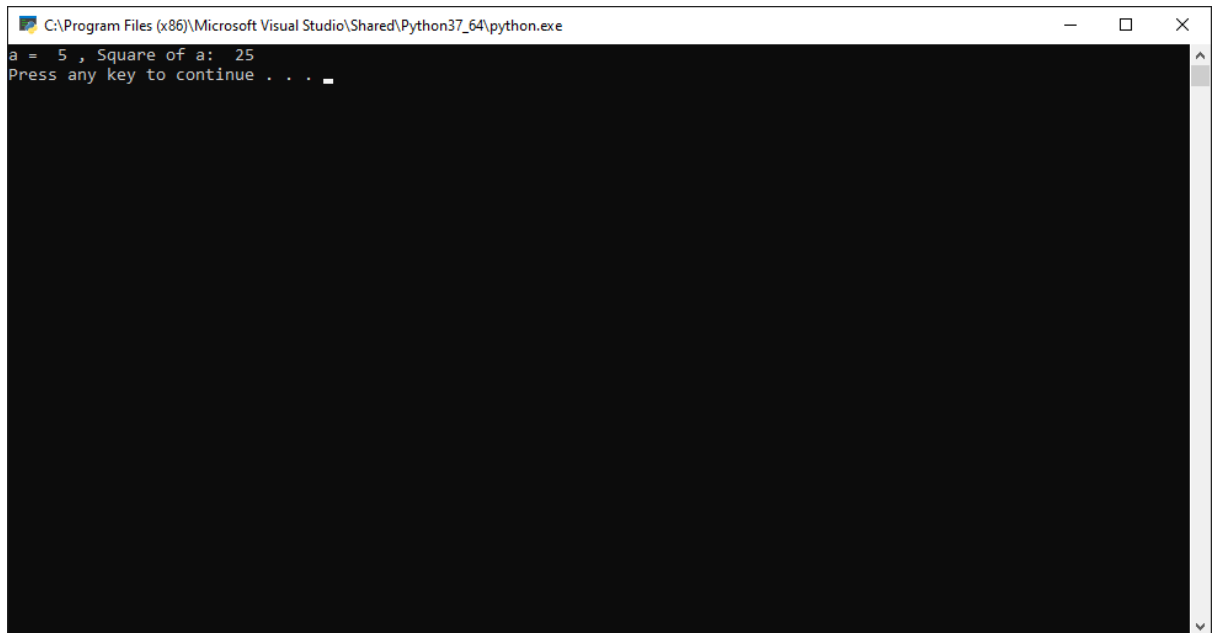
Define 3 integer variables, output the 3 variables and the sum of the 3 variables.



```
C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe
a = 5 b = 7 c = 9 Sum = 21
Press any key to continue . . .
```

3. Variable Squaring

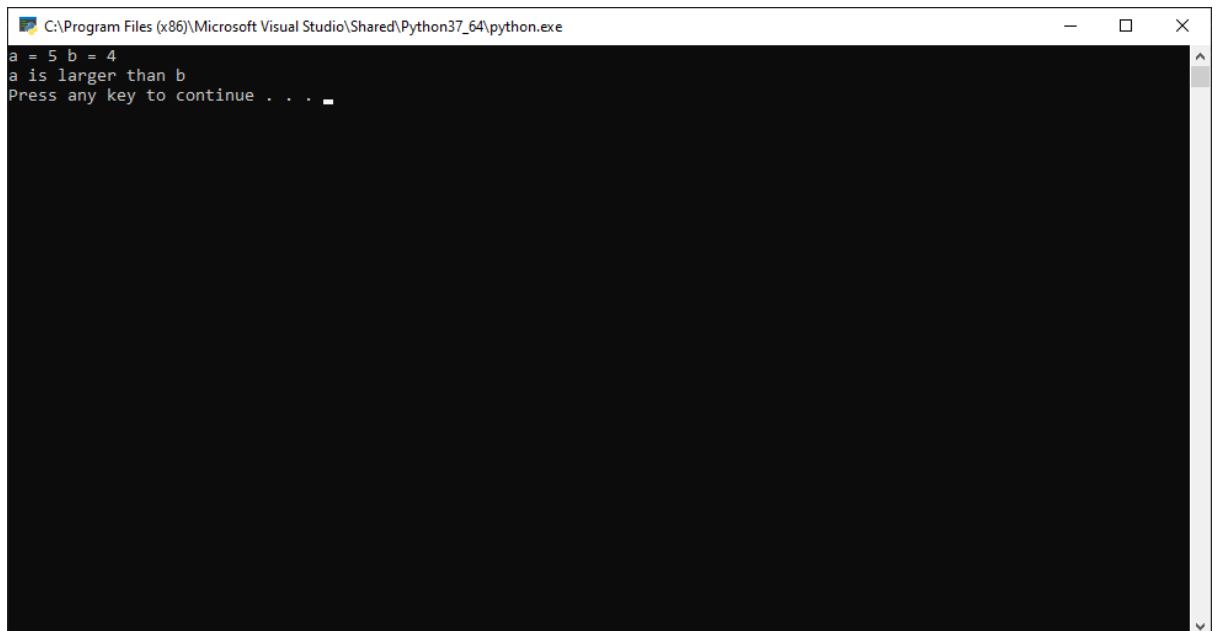
Define a variable, output the variable and the square of it.



```
C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe
a = 5 , Square of a: 25
Press any key to continue . . .
```

4. Variable Comparison

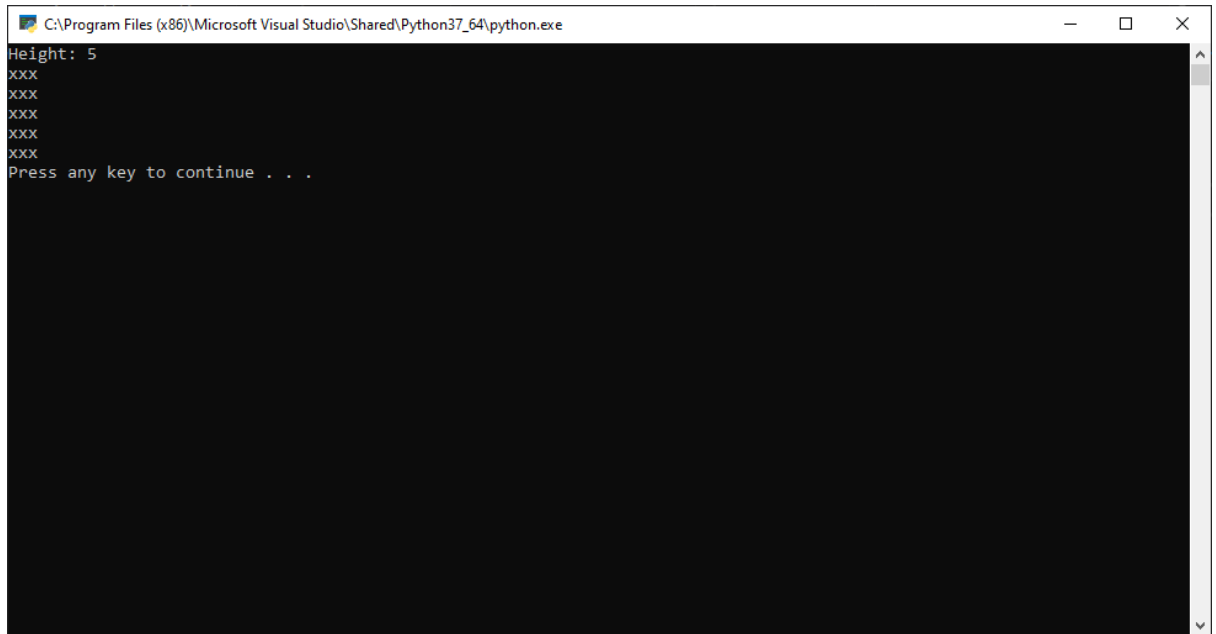
Define 2 variables, output the result after comparing the 2 variables (<, > or =).



```
C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe
a = 5 b = 4
a is larger than b
Press any key to continue . . .
```

5. Tower Builder

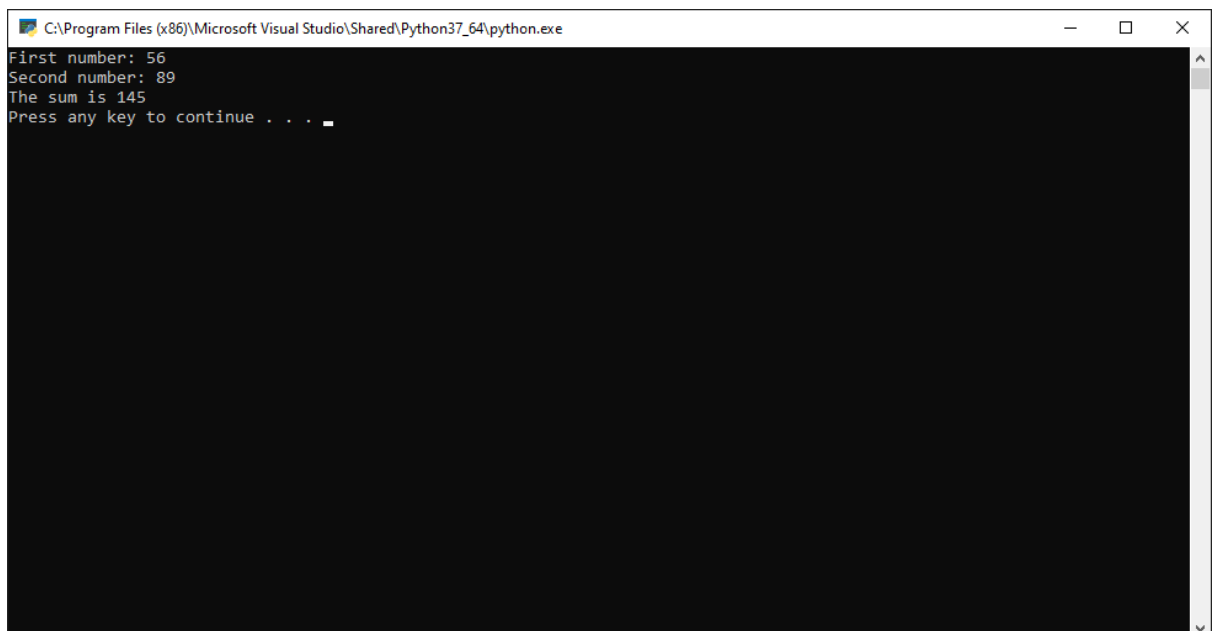
Ask for an integer input to be the height. The tower should be 3 characters wide. Print the building using the 'X' character.



```
C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe
Height: 5
XXX
XXX
XXX
XXX
XXX
Press any key to continue . . .
```

6. Addition Calculator


Input 2 integers and output the sum of the 2 numbers.



```
C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe
First number: 56
Second number: 89
The sum is 145
Press any key to continue . . .
```

7. Reversed List

Input the length of the list and output a reversed integer list based on the input length.




The screenshot shows a Windows command prompt window titled "C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe". The window has a black background with white text. The text displayed is:

```
List length: 10
10
9
8
7
6
5
4
3
2
1
Press any key to continue . . .
```

The list of numbers from 10 down to 1 is displayed, followed by the prompt "Press any key to continue . . .". The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

8. Square Printer

Input the size of the square and print it out using '[''] as building blocks



The screenshot shows a Windows command prompt window titled "C:\Program Files (x86)\Microsoft Visual Studio\Shared\Python37_64\python.exe". The prompt displays the text "Square Size: 7" followed by a 7x7 grid of asterisks (*) representing a square. Below the grid, the text "Press any key to continue . . ." is visible. The window has standard Windows title bar controls (minimize, maximize, close) in the top right corner.