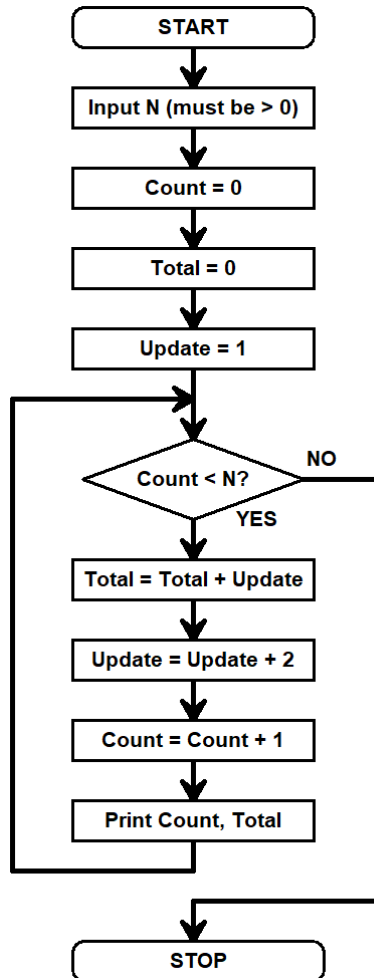


COMPSCI 119

LAB #1 – Converting a Flowchart into Python

The following flowchart is of a simple mathematical process to generate a list of numbers and their squares using only integers. Your task is to convert the flowchart into a running Python 3 program. All variables are integers. The details of how I want you to do this is on the next page.



First, all of the code that you write must appear inside a function called **Main**, with no parameters. The graders will run your program by typing `Main()` at the command prompt. No code will appear outside of `Main`.

Second, the **Input N** action box is actually more complicated than what is shown here, as it must discard any entered integer value that is less than or equal to zero, and in such cases asks the user for a positive integer again. Your program can *only* proceed to the next action when the user finally enters a positive integer. **Do not** use any user-defined functions here. **Do not** use exception handling (that is, do not use `try-except` or `try-finally` in your code; you may assume that users always enter ints and never enters floats or strings). The graders will test your program by entering both zero and negative numbers to see if your program rejects them.

Finally, you **must** include a comment at the top of your program containing your name and “Lab #1” – **failure to put your name on this or any other program you write will incur an automatic zero** as the score on the assignment.

Test your program completely. Run it several times: verify that for any positive integer N that is entered by the user, your program prints out every integer from 1 to N and its square. Also verify that entered values of zero or less are rejected.

When you are done, turn in the assignment. (It may be through Moodle or through another process.)