# Lab 5A –Void Functions

**Average Restaurant Rating and Number of Stars** – A restaurant receives numeric scores of 0-10 from five different food critics. The higher the score, the better the rating. The average score translates into a 1 – 5 star rating.

Write an IPO diagram and Python program that has two functions, main and determine\_stars.

main – Should accept input of five numeric ratings from the user USING A LOOP. It should then calculate the average numeric score for the restaurant. The numeric average should be passed to the determine\_stars function.

determine\_stars – should display the number of stars based on the numeric average:

Greater than 9: \*\*\*\*\*

8.0 - 8.9: \*\*\*\*

7.0 – 7.9: \*\*\*

6.0 – 6.9: \*\*

5.0 – 5.9: \*

Below 5.0 No stars

**Design:**

Design your program logic using pseudocode in the attached IPO Diagram. You should have 2 separate diagrams. One for the main function and one for the determine\_stars function.

**Modularity:** Your program should contain 2 functions: a main function to accept input from the user and calculate average and a second function to display the number of stars.

**Input Validation:** The test scores entered by the user should be in the range 0-10

**Output:** Display both the numeric average (rounded to two decimals) and the number of stars.

**Sample Dialog:**

Enter critic's score between 0 and 10: -1

Error Enter critic's score between 0 and 10: 5

Enter critic's score between 0 and 10: 6

Enter critic's score between 0 and 10: 7

Enter critic's score between 0 and 10: 8

Enter critic's score between 0 and 10: 9

Your score of 7.0 gives you \*\*\*

>>>

**Programming Style Requirements.**

* Comments – Begin your program with a comment that includes: a) your name, b)program status – either “Complete” or describe any incomplete or non-functioning part of your program c)A 1-3 line description of what the program does.
* Function comments – each function should begin with a comment explaining what the function does
* Variable names – use meaningful variable names such as total\_taxes or num\_cookies.
* Function names – use meaningful verb names for functions such as display\_taxes.
* Named constants – Use named constants for all number values that will not be changed in the program such as RECIPE\_SUGAR = 1.5. See section 2.9 on Named Constants

You should have 2 files to turn in:

Your program file: *yourlastname*\_Lab5A.py

Your IPO diagram: *yourlastname*\_Lab5A\_IPO.docx

average\_score

critic\_average\_score

critic\_score

critic\_score\_sum

determine\_stars

star\_rating

valid\_score

valid\_score\_inputs