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COMSC 140 Python

Program Documentation for

As7\_3\_Insert\_an\_element\_into\_the\_list

1/ Link  
<https://github.com/DVC-COMSC/assignment-7-3-enduringwriter/blob/main/main.py>

2/ Program Purpose  
This program inserts an integer value into a sorted list, maintaining the sorted order. Do not use sort or sorted functions.

Assumptions: Input list is already sorted.

3/ Input/Output Description  
Input: Sorted list of integers  
Output: Modified list with insertion value

4/ Explanation of All Variables

numbers = sorted list of integers

val = insertion value

i = counter

5/ Flow Chart  
Start > Input a sorted list of integers and an insertion value > Initialize counter > Find the correct insertion position in the list using a loop > Insert value > Break loop after insertion > Check if insertion value is greater than max integer in list, if so, append insertion > Output modified list > End

6/ Lesson Learned  
Sort order and insertion, and for loop with if statements.

7/ Errors

1/ Used > rather than < in the line of code: f val < numbers[i]:.

2/ Second if statement was not tabbed correctly.

3/ Added break in first if statement to stop loop.