

```
1  """
2  * Takes in a string and an alphabetized array, adds the string in the correct location
3  * so as to preserve the ordering.
4  * Precondition: new_item is a string, ordered_list is an alphabetized list of strings.
5  * Postcondition: list_ordered now includes new_item, remains alphabetized
6  """
7  def add_ordered(new_item, ordered_list):
8      length = len(ordered_list)
9      if new_item > ordered_list[length - 1]:
10         #in case new item comes after final item in list
11         ordered_list.append(new_item)
12     else:
13         #traverses array; when an item is found that's higher in the alphaet
14         #than new item, new item is inserted at that index.
15         for i in range(length):
16             if new_item < ordered_list[i]:
17                 ordered_list.insert(i, new_item)
18                 break
19
20
21
22 #input names in roster
23 roster = ["Sam", "Luis", "Yosuf", "Saad", "Maddox", "Rafiki"]
24
25 #sort roster alphabetically
26 roster.sort()
27
28 new_name = input("Enter a new name for the class: ")
29
30 add_ordered(new_name, roster)
31
32 print(roster)
33
```