

### Complexity Analysis:

The worst-case time complexity of our code would be  $O(n)$ . This would be when every element in the input string  $n$  is a letter. This would mean our first for loop would do work for every element in the original size of  $n$ . The second for loop will run 26 times to account for each letter in the english alphabet and calculate their frequencies. Thus that loop will run in constant time, making the complexity just  $O(n)$ .