

Problem 22. Using names.txt (right click and 'Save Link/Target As...'), a 46K text file containing over five-thousand first names, begin by sorting it into alphabetical order. Then working out the alphabetical value for each name, multiply this value by its alphabetical position in the list to obtain a name score.

For example, when the list is sorted into alphabetical order, COLIN, which is worth $3 + 15 + 12 + 9 + 14 = 53$, is the 938th name in the list. So, COLIN would obtain a score of $938 \times 53 = 49714$.

What is the total of all the name scores in the file?

Knowledge Required None

Solution Outline This is just doing what is told to be done. First we implement the function. `getAsciiSum` which returns the ascii sum when given a string as input. Next we read the text file and take then into a list. We sort the list, then we iterate over each list and adding the score to the variable `total_score`. Finally, `total_score` will contain the final answer.

Python Solution

```
1 def getAsciiSum(string):
2     ascii_sum = 0
3     for ch in string:
4         ascii_sum += ord(ch) - ord('A') + 1
5     return ascii_sum
6
7 with open('names.txt', 'r') as file:
8     strings = [s.replace('\\"', '') for s in file.readlines()[0].split(',') ]
9     strings.sort()
10
11     total_score = 0
12     for i, string in enumerate(strings):
13         total_score += getAsciiSum(string) * (i+1)
14
15 print(total_score)
```
