

WEEK 10 - DICTIONARY.

Started on	Sunday, 5 May 2024, 8:51 PM
State	Finished
Completed on	Sunday, 5 May 2024, 9:04 PM
Time taken	12 mins 26 secs
Marks	7.00/7.00
Grade	50.00 out of 50.00 (100%)
Name	RITHIKA H 2022-CSD-A

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

A sentence is a list of words that are separated by a single space with no leading or trailing spaces. Each word consists of lowercase and uppercase English letters.
A sentence can be shuffled by appending the 1-indexed word position to each word then rearranging the words in the sentence.
For example, the sentence "This is a sentence" can be shuffled as "sentence4 a3 is2 This1" or "is2 sentence4 This1 a3".
Given a shuffled sentence s containing no more than 9 words, reconstruct and return the original sentence.

Example 1:

Input:

is2 sentence4 This1 a3

Output:

This is a sentence

Explanation: Sort the words in s to their original positions "This1 is2 a3 sentence4", then remove the numbers.

Example 2:

Input:

Myself2 Me1 I4 and3

Output:

Me Myself and I

Explanation: Sort the words in s to their original positions "Me1 Myself2 and3 I4", then remove the numbers.

Constraints:

2 <= s.length <= 200

s consists of lowercase and uppercase English letters, spaces, and digits from 1 to 9.

The number of words in s is between 1 and 9.

The words in s are separated by a single space.

s contains no leading or trailing spaces.

```
1 s = input().split()
2 def pos(word):
3     return int(word[-1])
4 s.sort(key=pos)
5 o = ' '.join(word[:-1] for word in s)
6 print(o)
```

	Input	Expected	Got	
✓	is2 sentence4 This1 a3	This is a sentence	This is a sentence	✓
✓	Myself2 Me1 Vijay4 and3	Me Myself and Vijay	Me Myself and Vijay	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

Flag question

In the game of Scrabble™, each letter has points associated with it. The total score of a word is the sum of the scores of its letters. More common letters are worth fewer points while less common letters are worth more points. The points associated with each letter are shown below:

Points Letters

1 A, E, I, L, N, O, R, S, T and U

2 D and G

3 B, C, M and P

4 F, H, V, W and Y

5 K

8 J and X

10 Q and Z

Write a program that computes and displays the Scrabble™ score for a word. Create a dictionary that maps from letters to point values. Then use the dictionary to compute the score.

A Scrabble™ board includes some squares that multiply the value of a letter or the value of an entire word. We will ignore these squares in this exercise.

Sample Input

REC

Sample Output

REC is worth 5 points.

```
1 x = {
2     'A': 1, 'E': 1, 'I': 1, 'L': 1, 'N': 1, 'O': 1, 'R': 1, 'S':
3     'D': 2, 'G': 2,
4     'B': 3, 'C': 3, 'M': 3, 'P': 3,
5     'F': 4, 'H': 4, 'V': 4, 'W': 4, 'Y': 4,
6     'K': 5,
7     'J': 8, 'X': 8,
8     'Q': 10, 'Z': 10}
9 word = input().upper()
10 score = sum(x.get(letter, 0) for letter in word)
11 print("{0} is worth {1} points.".format(word, score))
```

	Input	Expected	Got	
✓	REC	REC is worth 5 points.	REC is worth 5 points.	✓
✓	RAJALAKSHMI	RAJALAKSHMI is worth 27 points.	RAJALAKSHMI is worth 27 points.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Flag question

A teacher wants to evaluate her class results for the subject she handles. She want to do the following analysis:

1. Display Class average
2. Display Maximum mark Roll no
3. Display Minimum mark Roll no

Kindly help her out. Use dictionary for storing the student details.

Input Format:

In line 1 no of students will be given

Followed by n lines containing student rollno and marks

Output Format:

Line 1 Class average

Line 2 Maximum mark Roll no

Line 3 Minimum mark Roll no

Sample Input:

```
4
01 87
02 99
03 45
04 77
```

Output:

```
77
02
03
```

```
3 max_marks = -1
4 min_marks = float('inf')
5 max_roll_no = ""
6 min_roll_no = ""
7
8 for i in range(n):
9     roll_no, marks = input().split()
10    marks = int(marks)
11    total_marks += marks
12
13    if marks > max_marks:
14        max_marks = marks
15        max_roll_no = roll_no
16
17    if marks < min_marks:
18        min_marks = marks
19        min_roll_no = roll_no
20
21 class_avg = total_marks // n
22 print(class_avg)
23 print(max_roll_no)
24 print(min_roll_no)
```

	Input	Expected	Got	
✓	4 01 87 02 99 03 45 04 77	77 02 03	77 02 03	✓

Passed all tests! ✓

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Multiply All the Items in a Dictionary

Input: Any input in Dictionary format (Ex: d={'A':10,'B':10,'C':239})

Output: multiplication of dictionary values (23900)

Answer: (penalty regime: 0 %)

```
1 a = {'a': 10, 'b': 10, 'c': 239}
2 result = 1
3 for value in a.values():
4     result *= value
5 print(result)
```

	Input	Expected	Got	
✓	d={'A':10,'B':10,'C':239}	23900	23900	✓

Passed all tests! ✓


Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

 Flag question

Create a program that determines and displays the number of unique characters in a string entered by the user. For example, Hello, World! has 10 unique characters while zzz has only one unique character. Use a dictionary or set to solve this problem.

For example:

Input	Result
Hello, World!	10

Answer: (penalty regime: 0 %)

```
1 x = input()
2 y = set(x)
3 c = x.count(' ')
4 special = sum(1 for char in x if not char.isalnum() and not char.isspace())
5 print(len(y))
```

	Input	Expected	Got	
✓	Hello, World!	10	10	✓
✓	zzz	1	1	✓
✓	RECCSE	4	4	✓
✓	AAABBBCCC	3	3	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.