

# Python Coding Test

19th February, 2021

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## Instructions:

Solve the given programs using any code editor of your choice. Next, create a github repository and push your code. Also add a text file which will have sample test cases for each of the programs and the output for that specific test case. Once everything is done, share the link.

The code must comply with the following requirements:

1. Conform your code to PEP 8 style
2. The program should take the input param at the runtime. Print specific instructions to do so. Use `__main__` to do that.
3. Make sure to add comments or docstrings, wherever necessary.

Example:

```
def some_function(args):  
    pass  
  
if __name__ == "__main__":  
    pass
```

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### Questions:

1. You are given a time in 12-hour format. Convert it to 24-hour format.

Input : 08:55:48PM

Output : 20:55:48

2. John and Sean went to a shop to buy chocolates. John doesn't buy a chocolate that Sean does. Consider N no.of chocolates are there and they have a total of Rs.M. Given a list of prices of chocolates, select the two that will cost all of the money they have. Considering 1-based indexing, print which two chocolate they bought.

Input :

6 (N)

12 (M)

1 5 7 12 16 23 (Price of N chocolates)

Output :

2 3

3. Alice and Bob decided to have a competition. They wrote N no.of tests. For whoever scores more will be given one point. If both score the same marks, no point is awarded. Alice's marks are entered first followed by Bob's. Calculate who got how many points. The output should display their name and no.of point each got followed by who won the competition.

Input :

5 (N)

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45 78 33 97 13 (Alice's Marks)

66 89 23 97 54 (Bob's Marks)

Output :

Alice 1

Bob 3

Bob won the competition.

4. You are given no.of words followed by the list of words. For each word, print the word, it's length and number of its occurrences.

Input

5 (no.of words)

New (words)

Old

Existing

New

New

Output :

New 3 3

Old 3 1

Existing 8 1

5. You are given a list of N books and their details (no.of pages, price and no.of chapters). Display the list of attributes and ask the user to select one attribute. You are required to

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sort the data based on the attribute selected by the user and print the final resulting table.

Input:

3			(N)
500	250	22	(Book 1)
148	55	10	(Book 2)
207	199	31	(Book 3)
2			(Attribute)

6. You are given a sentence containing alphabets, numbers, symbols and spaces. Your task is to sort the string in the following order and each separated by space:

- Symbols
- lowercase letters
- uppercase letters
- odd digits
- even digits
- no.of spaces

Input : 131/265 is where I and Sam Live.

Output : /. iswhereandamive ISL 1315 26 6