

Spring 2024: CS5720 Neural Networks & Deep Learning -ICP2

SAssignment-2

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Video Link:

https://drive.google.com/file/d/17wletDHRn6POuN1Z049q9MPA9oKGv6zP/view?usp=drive_link

GitHub Link: https://github.com/mahendrasrirambetha/NN_Assignment2.git

1. Write a program that takes two strings from the user: first name, last name. Pass these variables to full name function that should return the (full name).

o For example:

- First name = “your first name”, last name = “your last name”
- Full name = “your full name.

o Write function named “string alternative” that returns every other char in the full name string.
Str = “Good evening” Output: Go vnn

Note: You need to create a function named “string alternative” for this program and call it from main function.

```
main.py
1  #Function to take two strings from the user
2  def fullname(first_name,last_name):
3      return first_name+" "+last_name
4
5  #Function that returns every other char in the full_name string
6  def string_alternative(str):
7      return str[::2]
8
9  #taking input and assigning to variables
10 First_name = input("your first name : ")
11 last_name = input("your last name : ")
12
13 #Calling fullname function
14 Full_name= fullname(First_name,last_name)
15
16 #Printing Full Name
17 print("Full Name: "+Full_name)
18
19 #Calling string_alternative and printing the same
20 print(string_alternative(Full_name))
21
```

```
input
your first name : Mahendra
your last name : Sriram
Full Name: Mahendra Sriram
Mhnr rrm

...Program finished with exit code 0
Press ENTER to exit console.[]
```

2. Write a python program to find the wordcount in a file (input.txt) for each line and then print the output.
- o Finally store the output in output.txt file.

Example:

Input: a file includes two lines:

Python Course

Deep Learning Course

Output:

Python Course

Deep Learning Course

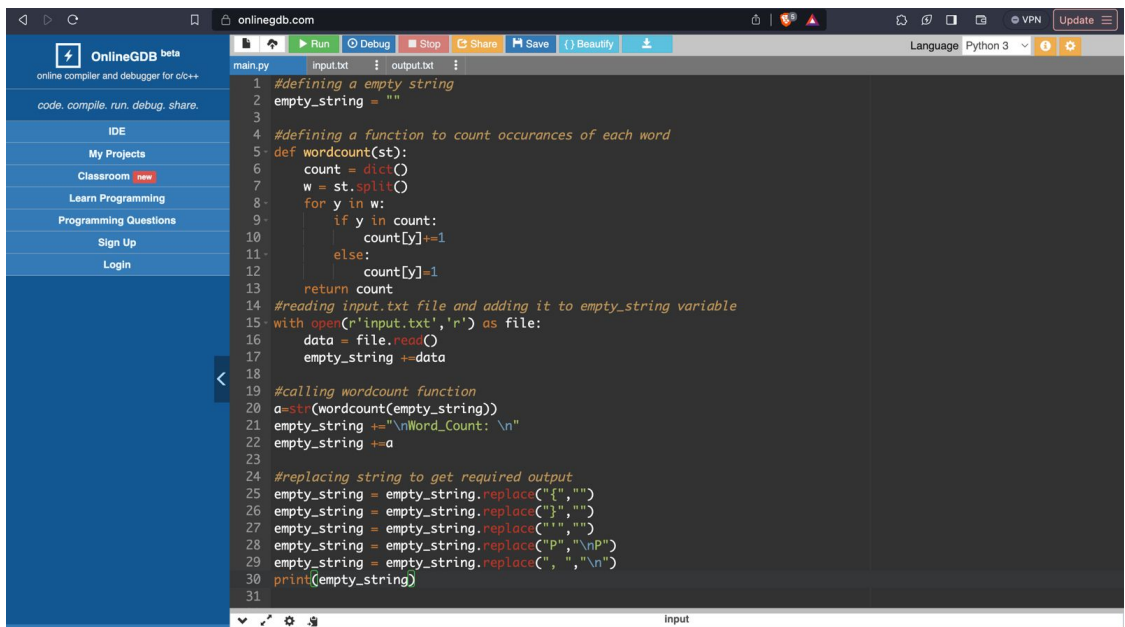
Word-count:

Python: 1

Course: 2

Deep: 1

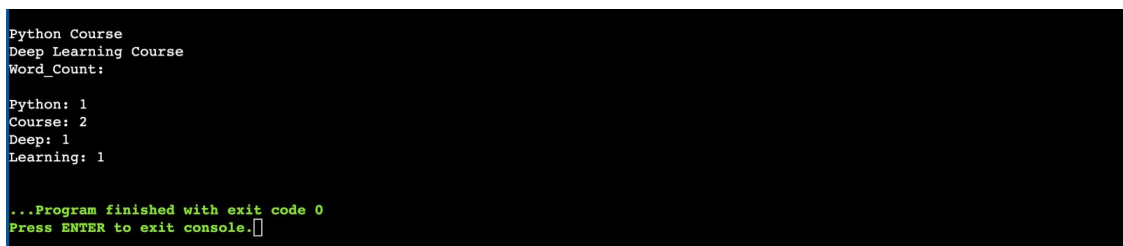
Learning: 1



```
1 #defining a empty string
2 empty_string = ""
3
4 #defining a function to count occurrences of each word
5 def wordcount(st):
6     count = dict()
7     w = st.split()
8     for y in w:
9         if y in count:
10             count[y] += 1
11         else:
12             count[y] = 1
13     return count
14
15 #reading input.txt file and adding it to empty_string variable
16 with open(r'input.txt', 'r') as file:
17     data = file.read()
18     empty_string += data
19
20 #calling wordcount function
21 a = str(wordcount(empty_string))
22 empty_string += "\nWord_Count: \n"
23 empty_string += a
24
25 #replacing string to get required output
26 empty_string = empty_string.replace("{", "")
27 empty_string = empty_string.replace("}", "")
28 empty_string = empty_string.replace("'", "")
29 empty_string = empty_string.replace("P", "\nP")
30 empty_string = empty_string.replace(", ", "\n")
31 print(empty_string)
```



```
32 #opening and writing to the file
33 outputfile = open(r'output.txt', 'w')
34 outputfile.write(empty_string)
35
36 #closing of txt files
37 outputfile.close()
38 file.close()
39
```



```
Python Course
Deep Learning Course
Word_Count:

Python: 1
Course: 2
Deep: 1
Learning: 1

...Program finished with exit code 0
Press ENTER to exit console.
```

3. Write a program, which reads heights (inches.) of customers into a list and convert these heights to centimeters in a separate list using:

1) Nested Interactive loop.

2) List comprehensions

Example:

L1: [150,155, 145, 148]

Output:

[68.03, 70.3, 65.77, 67.13]

```
main.py
1 #Defining a list
2 list_height = []
3
4 #taking input from user for number of customers
5 no_Of_Customers = int(input("Enter number of customers : "))
6
7 #for loop to take input and append to list
8 for i in range(0, no_Of_Customers):
9     height = float(input())
10    list_height.append(height)
11
12 #converting inches to cms and appending to a list
13 final_list = [x*2.54 for x in list_height]
14
15 #printing the new list
16 print(final_list)
```

Input

```
Enter number of customers : 3
11
12
13
[27.94, 30.48, 33.02]
```

