Spring 2024:CS5720

Neural Networks and Deep Learning - ICP-1

GITHUB LINK: https://github.com/Vijayvardhan02/NN_ICP1

VIDEOLINK:https://drive.google.com/file/d/1FVQ7jggprZWmphRHSQit_7Ld94rM9fQH/view?usp=sharing

CODE 1 AND OUTPUT:

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

main.py | input(1).txt | output.txt

```
1
2  #1
3  def fullname(first_name, last_name):
4      return f"{first_name} {last_name}"
5
6  def string_alternative(full_name):
7      return full_name[::2]
8
9  def main():
10
11     first_name = input("Enter your first name: ")
12     last_name = input("Enter your last name: ")
13
14     full_name = fullname(first_name, last_name)
15     print(f"Full Name: {full_name}")
16
17     alternative_string = string_alternative(full_name)
18     print(f"Every other character in the full name: {alternative_string}")
19
20 if __name__ == "__main__":
21     main()
22
23
```

input

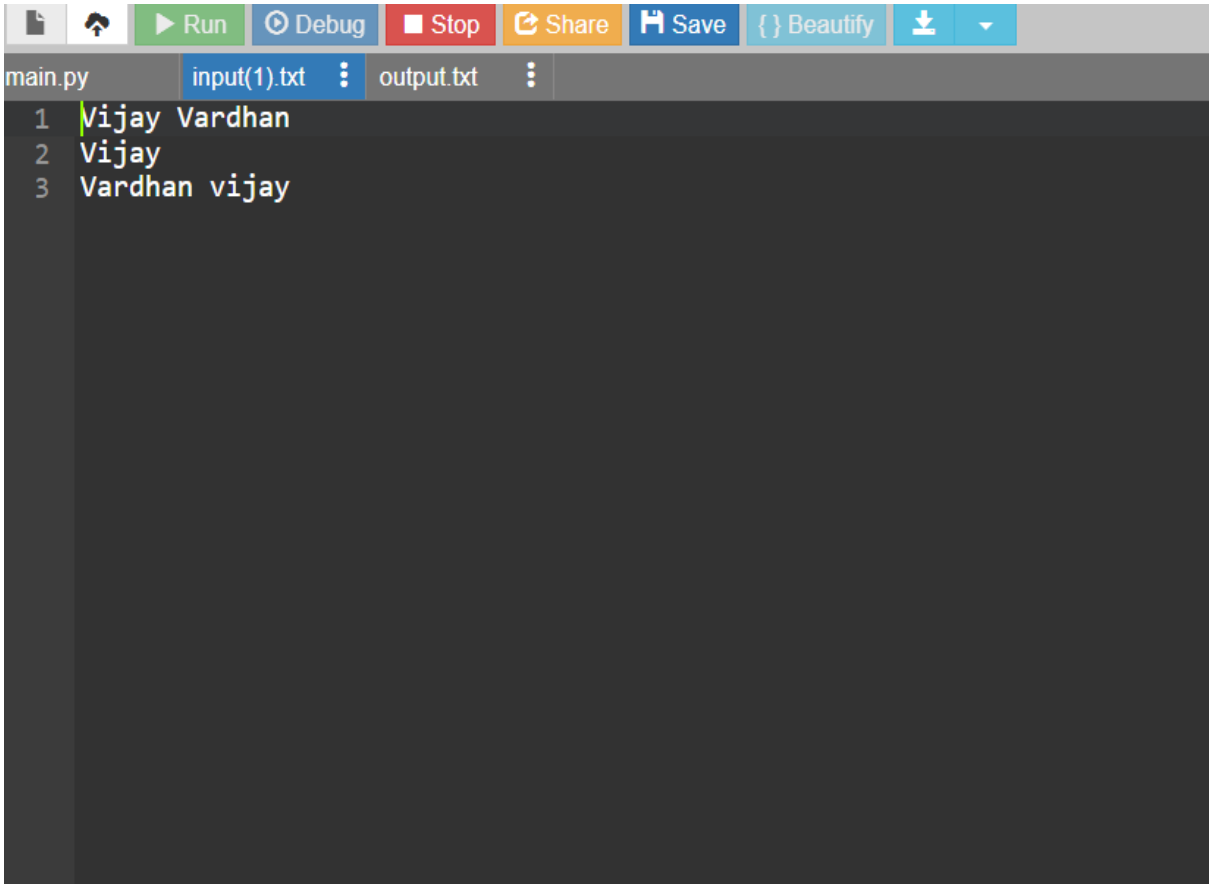
```
Enter your first name: vijay Vardhan
Enter your last name: Gonaboyina
Full Name: vijay Vardhan Gonaboyina
Every other character in the full name: vjyVrhnGnbyn
```

2ND CODE:

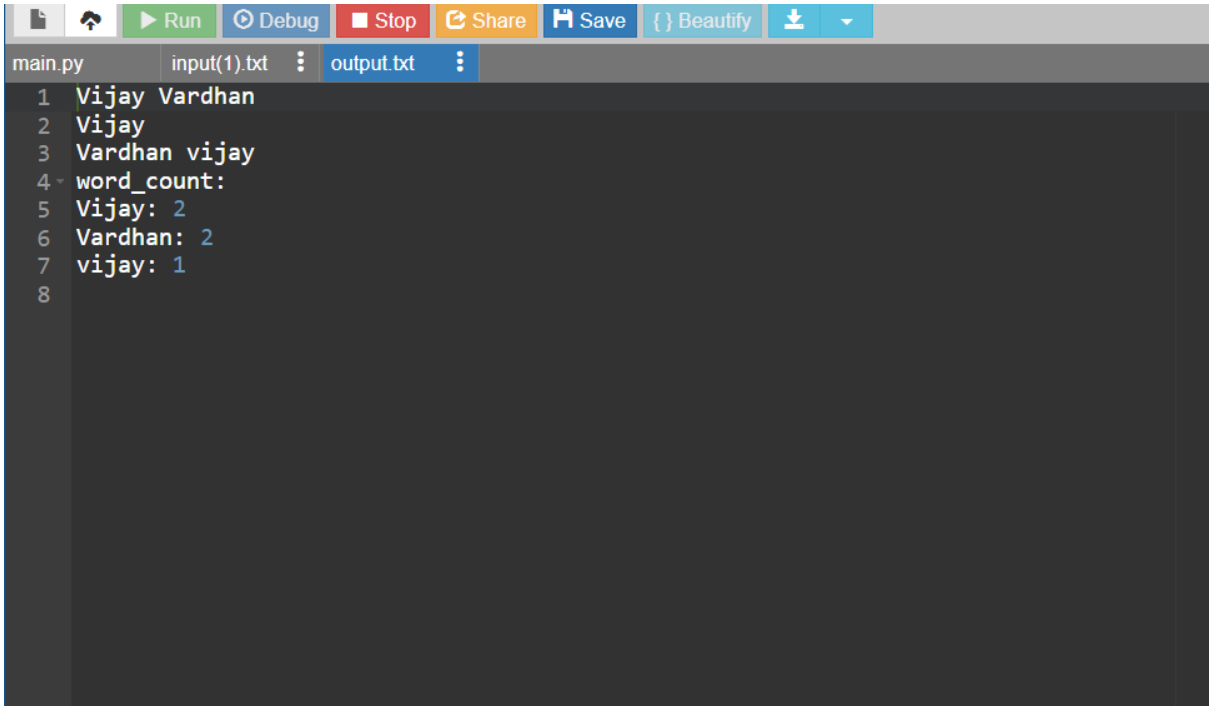
Write a python program to find the wordcount in a file (input.txt) for each line and then print the output.

```
#2
input_file = open('input(1).txt', 'r')#reading the input file
count = dict()# to count
source = input_file.read()# read data from the input file
words = source.split()# splitting the words
for word in words:
    if word in count:
        count[word] += 1
    else:
        count[word] = 1
print(count)
f = open('output.txt', 'w')#writing the output file
f.write(source)
f.write('\nword_count:\n')
for key, value in count.items():
    f.write(f"{key}: {value}\n")
f.close()
```

INPUT FILE:

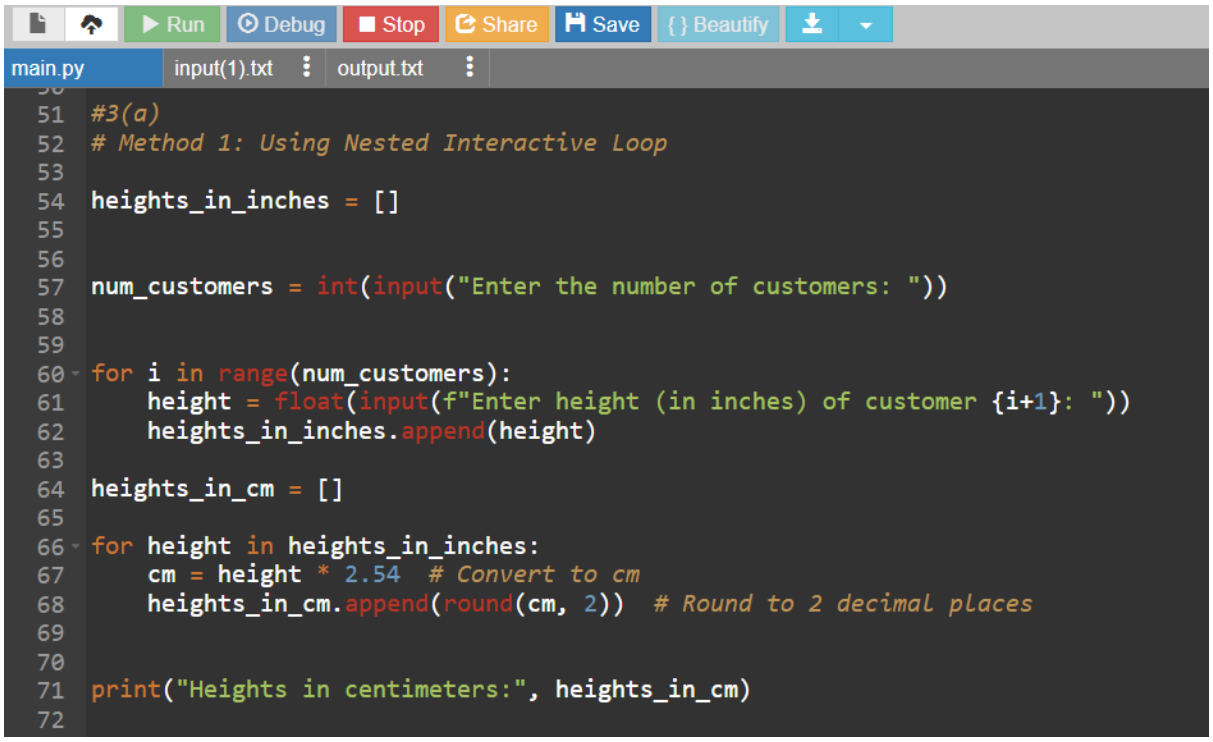


OUTPUT FILE:



3RD CODE (USING NESTED INTERACTIVE LOOP) :

Write a program, which reads heights (inches.) of customers in to a list and convert these heights to centimeter



OUTPUT

```
Enter the number of customers: 4
Enter height (in inches) of customer 1: 123
Enter height (in inches) of customer 2: 122
Enter height (in inches) of customer 3: 120
Enter height (in inches) of customer 4: 121
Heights in centimeters: [312.42, 309.88, 304.8, 307.34]
Enter the number of customers:
```

3RD CODE :(USING LIST COMPREHENSION)

```python
#3(b)
# Method 2: Using List Comprehensions

heights_in_inches = []

num_customers = int(input("Enter the number of customers: "))

for i in range(num_customers):
    height = float(input(f"Enter height (in inches) of customer {i+1}: "))
    heights_in_inches.append(height)


heights_in_cm = [round(height * 2.54, 2) for height in heights_in_inches]


print("Heights in centimeters:", heights_in_cm)
```

OUTPUT:

```
Enter the number of customers: 4
Enter height (in inches) of customer 1: 121
Enter height (in inches) of customer 2: 122
Enter height (in inches) of customer 3: 123
Enter height (in inches) of customer 4: 121
Heights in centimeters: [307.34, 309.88, 312.42, 307.34]
```