ICP 2

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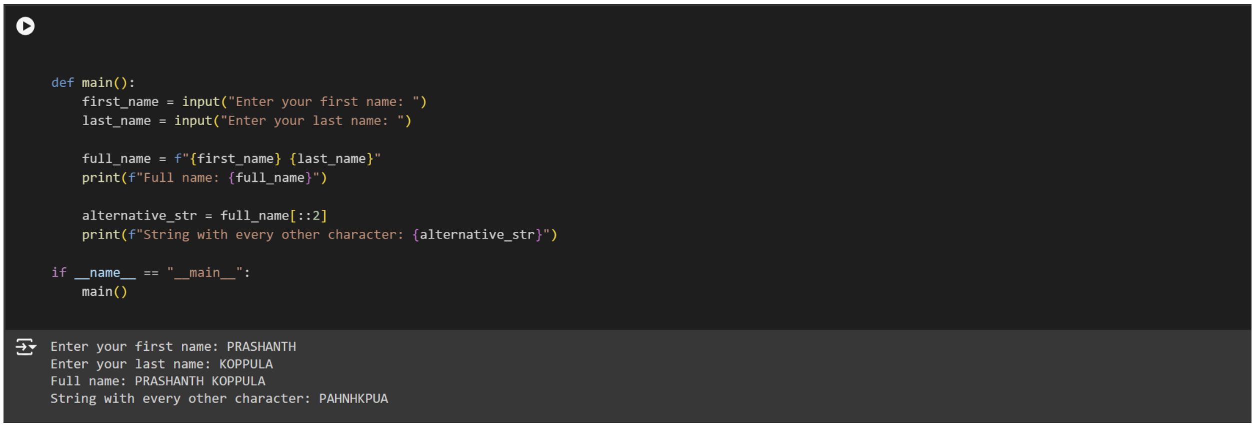
700#   : 700761149

Google Drive Link:
https://drive.google.com/file/d/1dMFZuIOZGNvf5vggsKv2QzzK0BudRPp9/view?usp=drive_link

Github Link : https://github.com/Nagi-131/700761149-ICP1

1. Write a program that takes two strings from the user: first_name, last_name. Pass these variables to fullname 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.

Ans:



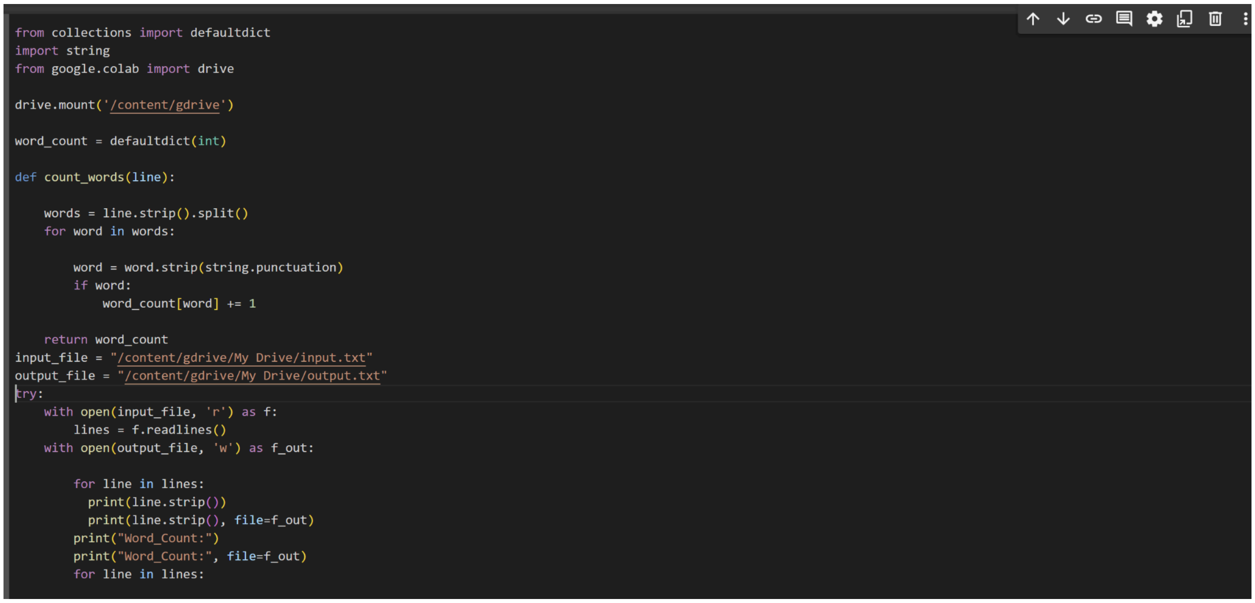
```
def main():
    first_name = input("Enter your first name: ")
    last_name = input("Enter your last name: ")

    full_name = f"{first_name} {last_name}"
    print(f"Full name: {full_name}")

    alternative_str = full_name[::2]
    print(f"String with every other character: {alternative_str}")

if __name__ == "__main__":
    main()
```

```
Enter your first name: PRASHANTH
Enter your last name: KOPPULA
Full name: PRASHANTH KOPPULA
String with every other character: PAHNHKPUA
```

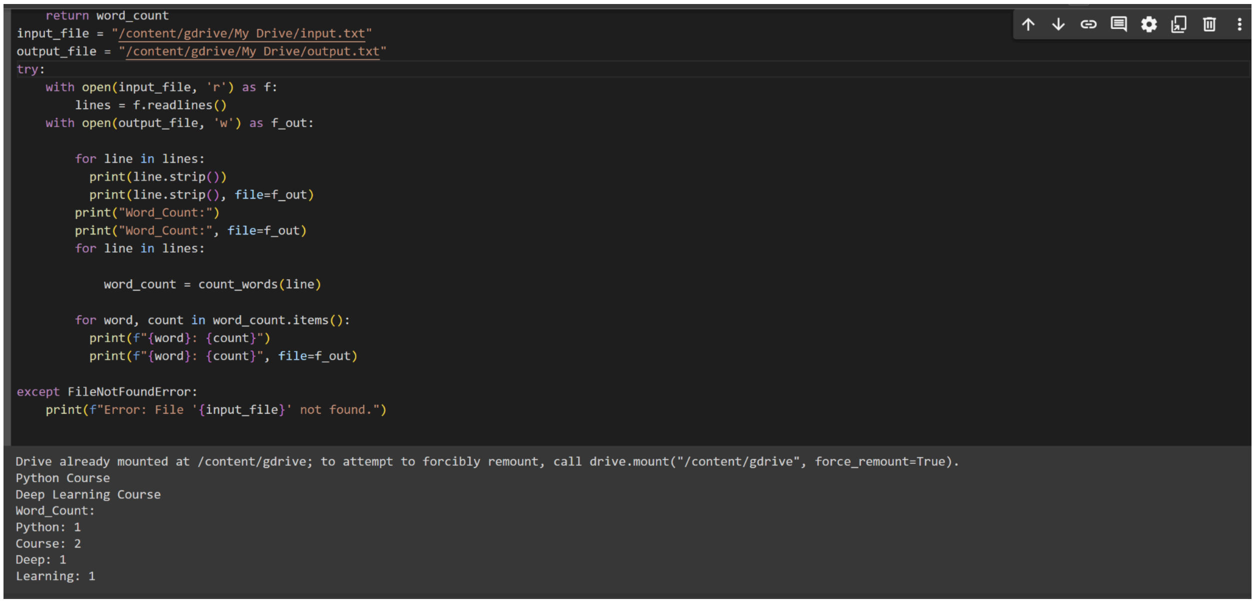
2. Write a python program to find the wordcount in a file (input.txt) for each line and then print the output. o Finally store the output in output.txt file.
Example: Input: a file includes two lines:
Python Course Deep Learning Course
Output: Python Course Deep Learning Course
Word_Count:
Python: 1

Course: 2
Deep: 1
Learning: 1

Ans:



```
from collections import defaultdict
import string
from google.colab import drive

drive.mount('/content/gdrive')

word_count = defaultdict(int)

def count_words(line):

    words = line.strip().split()
    for word in words:

        word = word.strip(string.punctuation)
        if word:
            word_count[word] += 1

    return word_count
input_file = "/content/gdrive/My Drive/input.txt"
output_file = "/content/gdrive/My Drive/output.txt"
try:
    with open(input_file, 'r') as f:
        lines = f.readlines()
    with open(output_file, 'w') as f_out:

        for line in lines:
          print(line.strip())
          print(line.strip(), file=f_out)
        print("Word_Count:")
        print("Word_Count:", file=f_out)
        for line in lines:
```



```
    return word_count
input_file = "/content/gdrive/My Drive/input.txt"
output_file = "/content/gdrive/My Drive/output.txt"
try:
    with open(input_file, 'r') as f:
        lines = f.readlines()
    with open(output_file, 'w') as f_out:

        for line in lines:
          print(line.strip())
          print(line.strip(), file=f_out)
        print("Word_Count:")
        print("Word_Count:", file=f_out)
        for line in lines:

            word_count = count_words(line)

        for word, count in word_count.items():
          print(f"{word}: {count}")
          print(f"{word}: {count}", file=f_out)

except FileNotFoundError:
    print(f"Error: File '{input_file}' not found.")
```

```
Drive already mounted at /content/gdrive; to attempt to forcibly remount, call drive.mount("/content/gdrive", force_remount=True).
Python Course
Deep Learning Course
Word_Count:
Python: 1
Course: 2
Deep: 1
Learning: 1
```

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

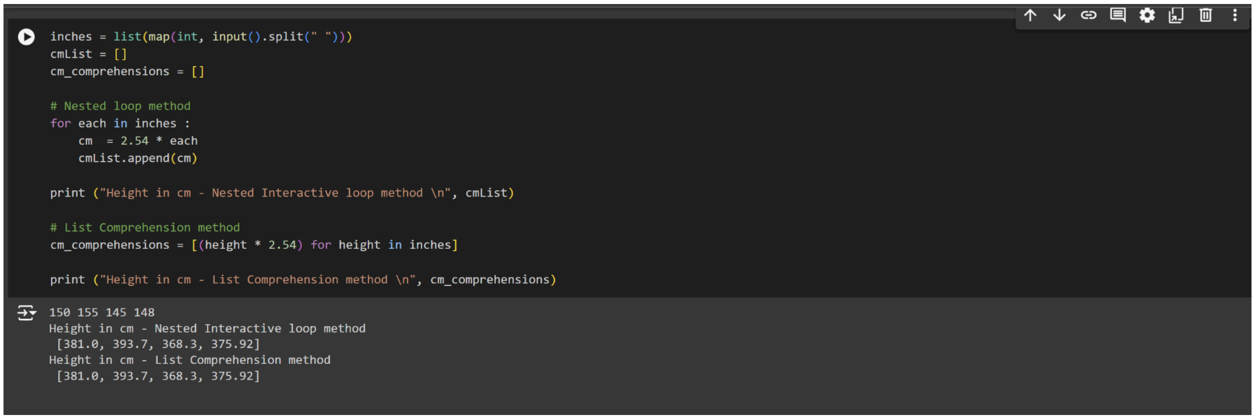
1) Nested Interactive loop.

2) List comprehensions

Example: L1: [150,155, 145, 148]

Output: [68.03, 70.3, 65.77, 67.13]

Ans:



```
inches = list(map(int, input().split(" ")))
cmList = []
cm_comprehensions = []

# Nested loop method
for each in inches :
    cm  = 2.54 * each
    cmList.append(cm)

print ("Height in cm - Nested Interactive loop method \n", cmList)

# List Comprehension method
cm_comprehensions = [(height * 2.54) for height in inches]

print ("Height in cm - List Comprehension method \n", cm_comprehensions)
```

```
150 155 145 148
Height in cm - Nested Interactive loop method
 [381.0, 393.7, 368.3, 375.92]
Height in cm - List Comprehension method
 [381.0, 393.7, 368.3, 375.92]
```