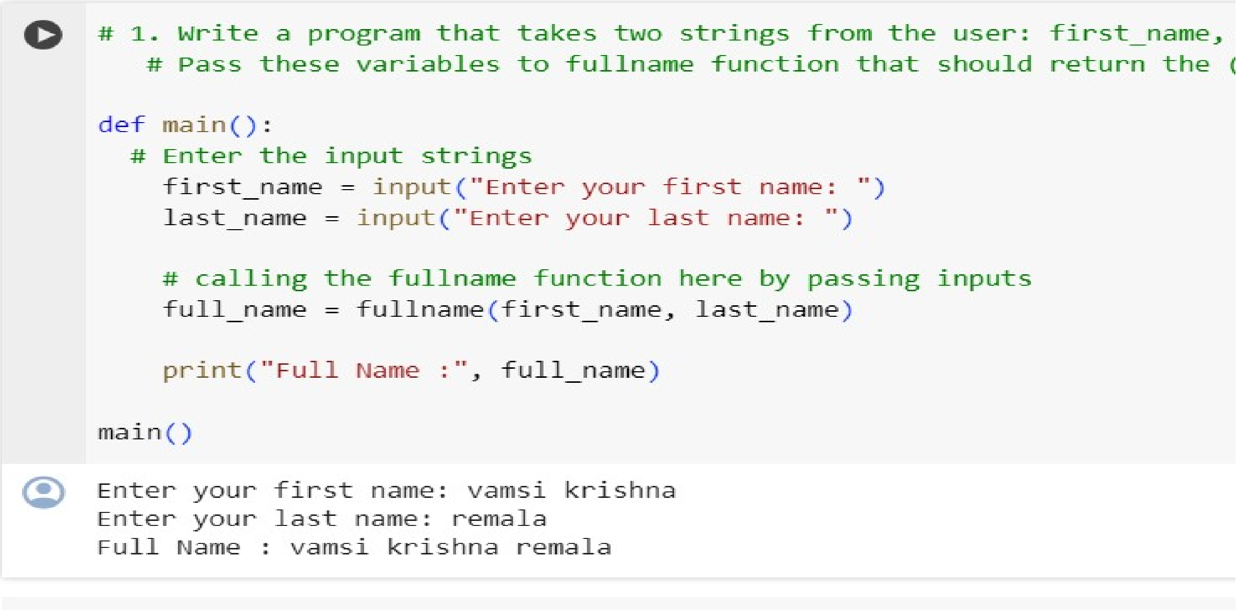
ASSIGNMENT-2

STUDENT ID: 700744730

GITHUB LINK:
https://github.com/vamsikrishnaremala/700744730_NNDL_ICP2/blob/main/README.md

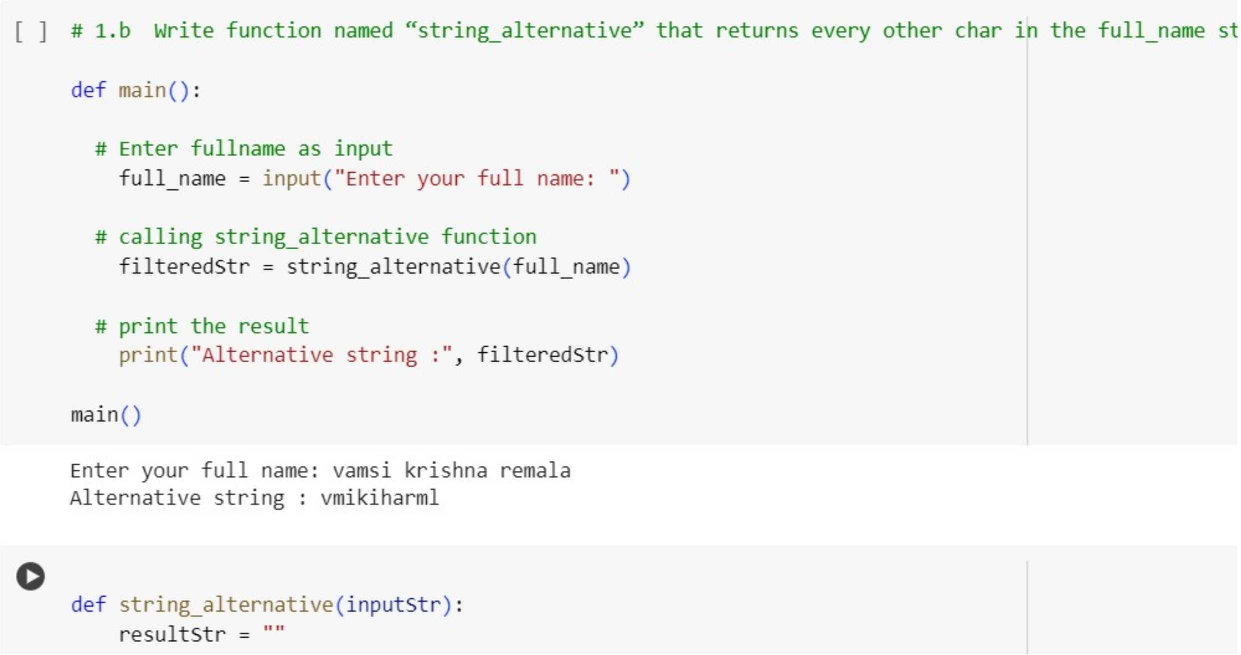
1.



```
# 1. Write a program that takes two strings from the user: first_name,
   # Pass these variables to fullname function that should return the (

def main():
  # Enter the input strings
    first_name = input("Enter your first name: ")
    last_name = input("Enter your last name: ")

    # calling the fullname function here by passing inputs
    full_name = fullname(first_name, last_name)

    print("Full Name :", full_name)

main()
```

```
Enter your first name: vamsi krishna
Enter your last name: remala
Full Name : vamsi krishna remala
```

1.b

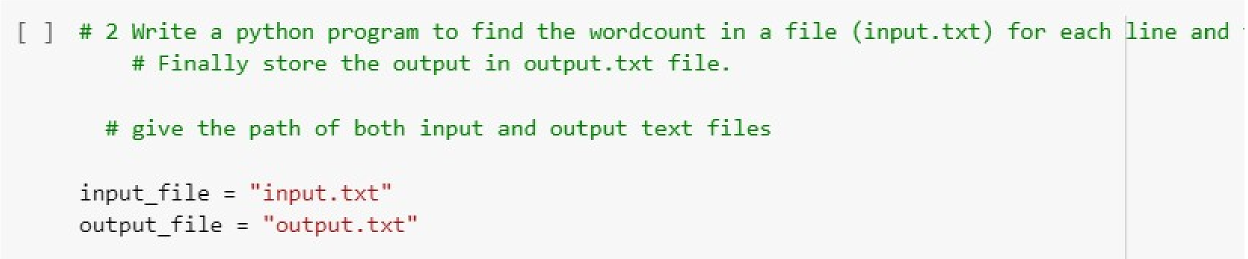


```
[ ] # 1.b  Write function named “string_alternative” that returns every other char in the full_name st

    def main():

      # Enter fullname as input
        full_name = input("Enter your full name: ")

      # calling string_alternative function
        filteredStr = string_alternative(full_name)

      # print the result
        print("Alternative string :", filteredStr)

    main()
```

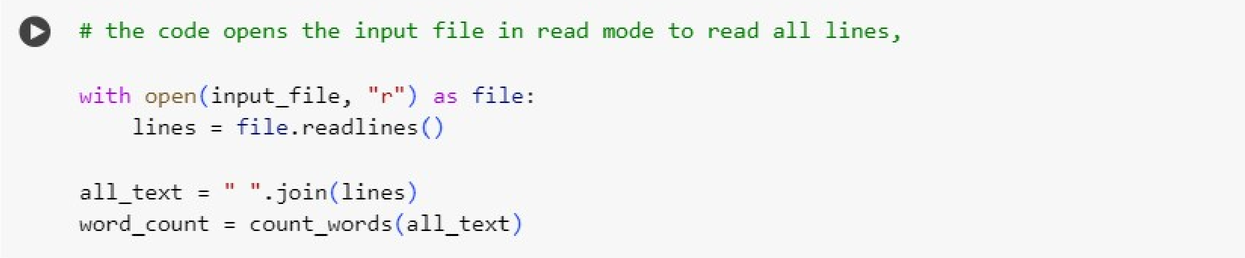
```
Enter your full name: vamsi krishna remala
Alternative string : vmikiharml
```

```
def string_alternative(inputStr):
    resultStr = ""
```

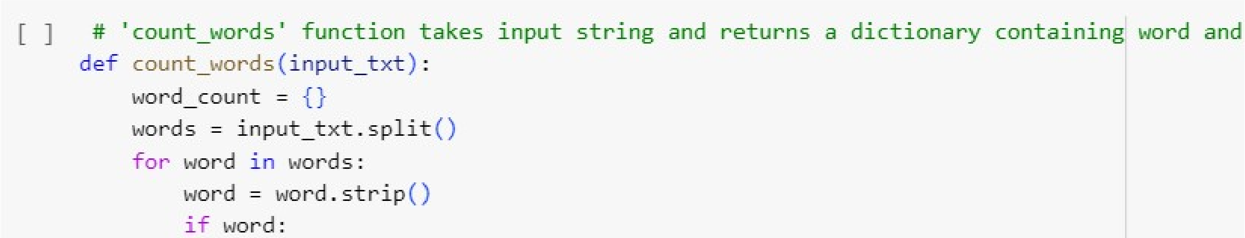
2.



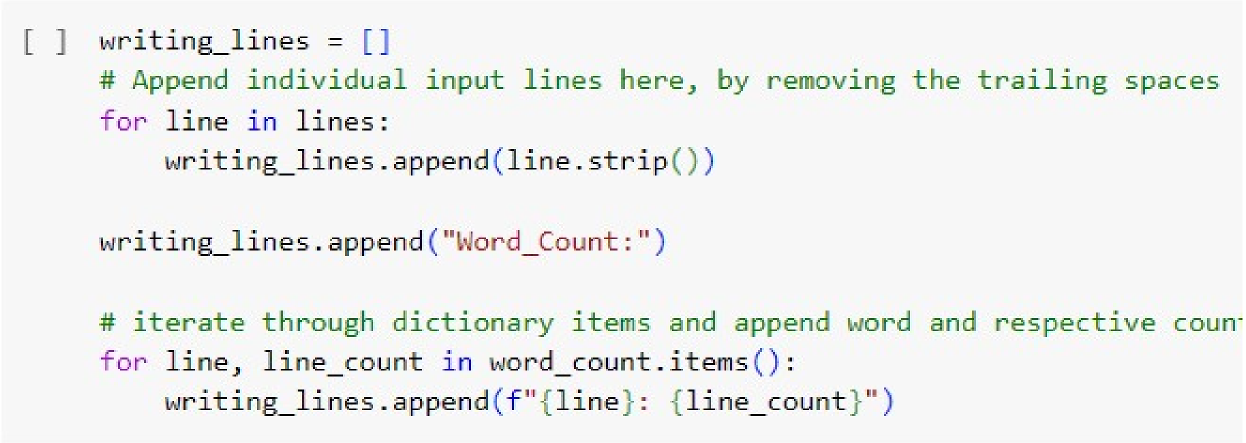
```
# 2 Write a python program to find the wordcount in a file (input.txt) for each line and
    # Finally store the output in output.txt file.

  # give the path of both input and output text files

input_file = "input.txt"
output_file = "output.txt"
```



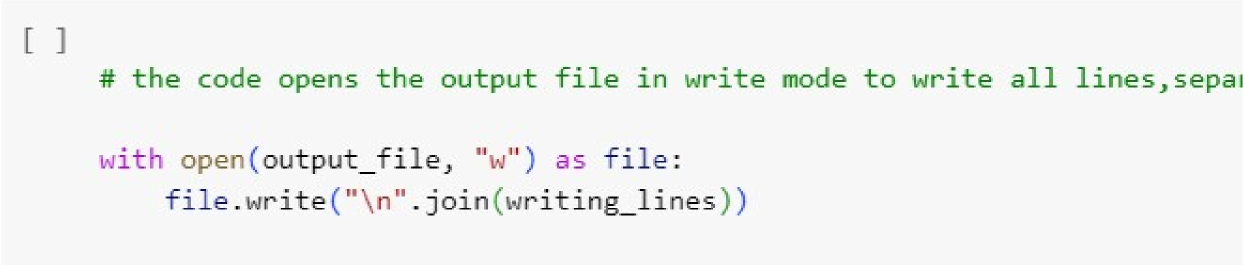
```
# the code opens the input file in read mode to read all lines,

with open(input_file, "r") as file:
    lines = file.readlines()

all_text = " ".join(lines)
word_count = count_words(all_text)
```



```
 # 'count_words' function takes input string and returns a dictionary containing word and
def count_words(input_txt):
    word_count = {}
    words = input_txt.split()
    for word in words:
        word = word.strip()
        if word:
```



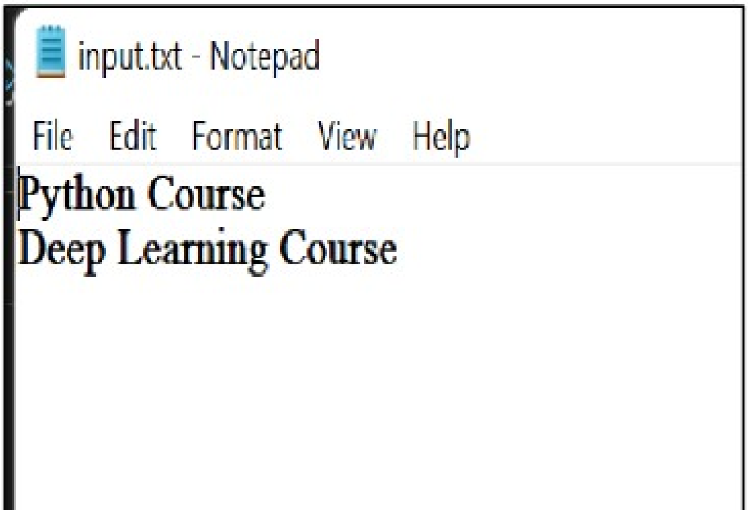
```
writing_lines = []
# Append individual input lines here, by removing the trailing spaces
for line in lines:
    writing_lines.append(line.strip())

writing_lines.append("Word_Count:")

# iterate through dictionary items and append word and respective coun
for line, line_count in word_count.items():
    writing_lines.append(f"{line}: {line_count}")
```



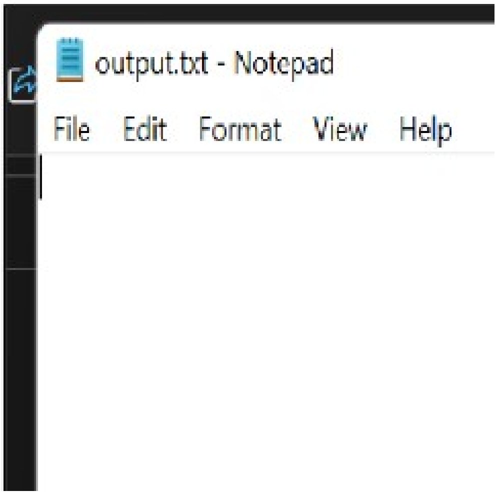
```
# the code opens the output file in write mode to write all lines,sepa

with open(output_file, "w") as file:
    file.write("\n".join(writing_lines))
```

Input and output:

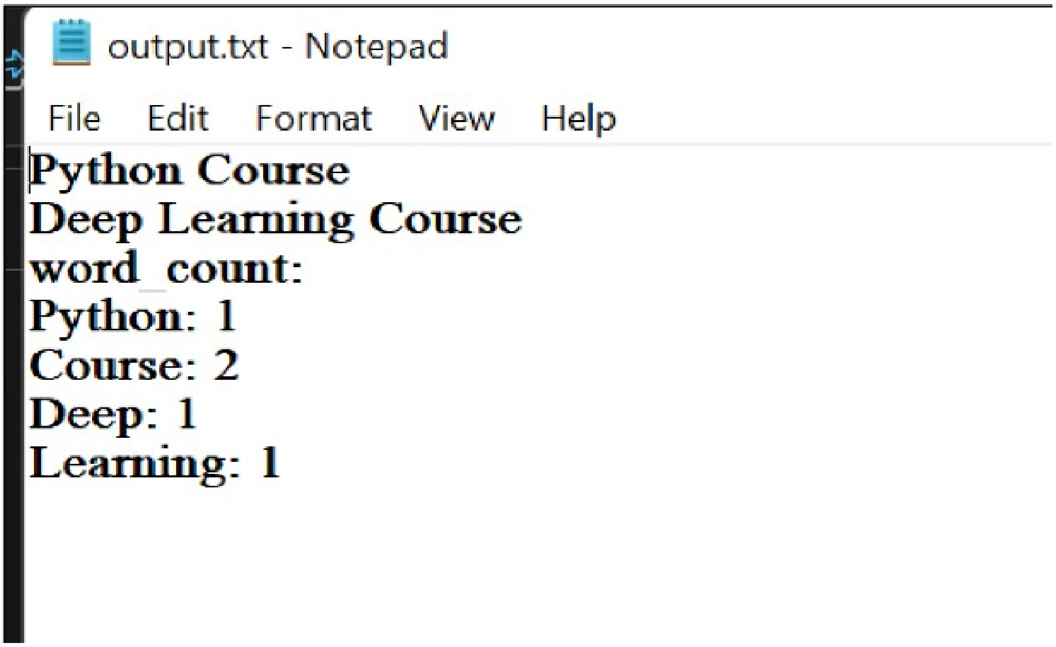
Input file with text and empty output file before running the code:



```
Python Course
Deep Learning Course
```

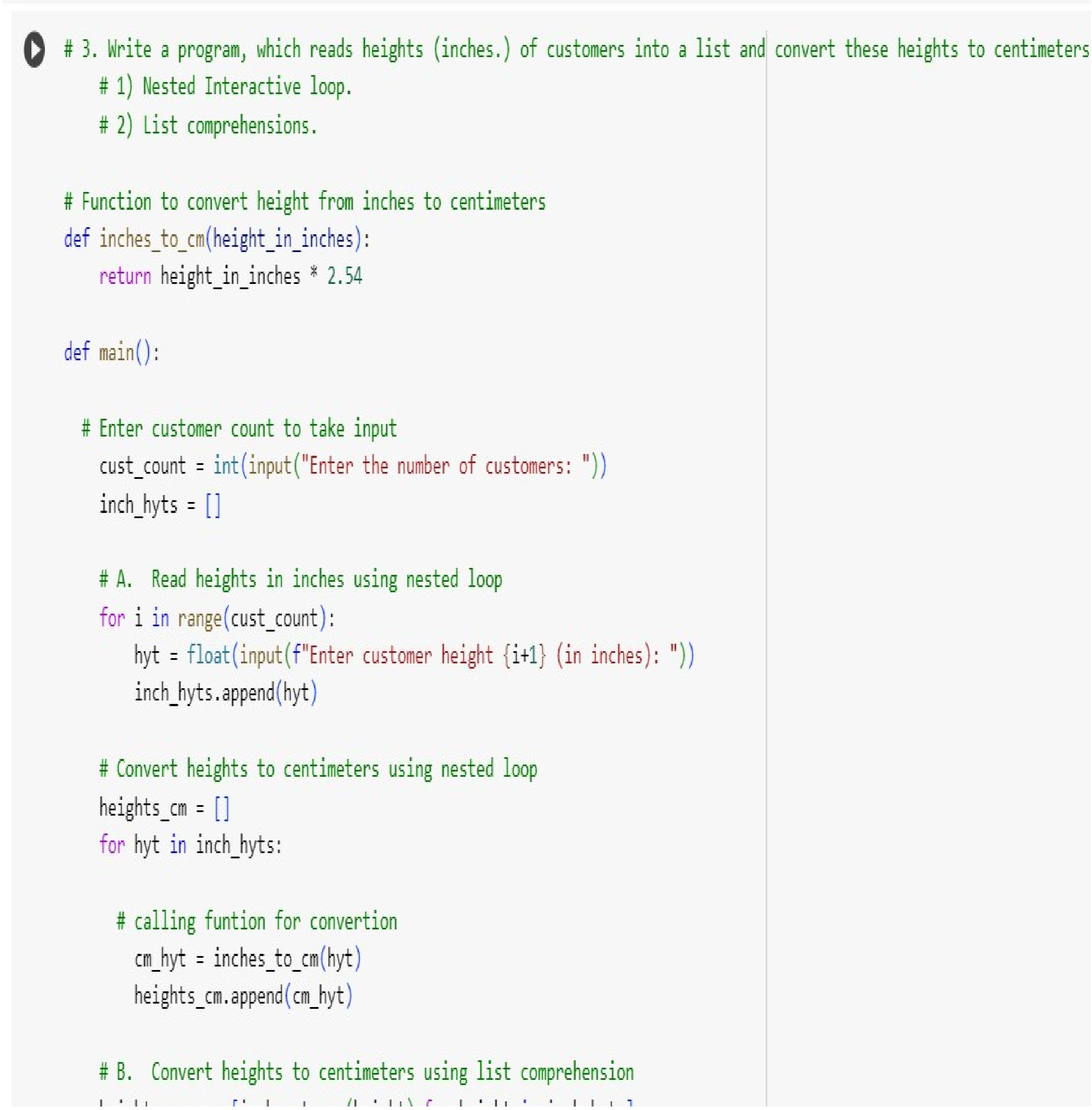


Output file with result:



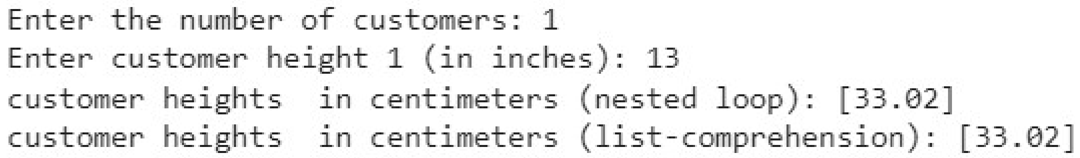
```
Python Course
Deep Learning Course
word_count:
Python: 1
Course: 2
Deep: 1
Learning: 1
```

3.



```
# 3. Write a program, which reads heights (inches.) of customers into a list and convert these heights to centimeters
    # 1) Nested Interactive loop.
    # 2) List comprehensions.

# Function to convert height from inches to centimeters
def inches_to_cm(height_in_inches):
    return height_in_inches * 2.54

def main():

  # Enter customer count to take input
    cust_count = int(input("Enter the number of customers: "))
    inch_hyts = []

    # A.  Read heights in inches using nested loop
    for i in range(cust_count):
        hyt = float(input(f"Enter customer height {i+1} (in inches): "))
        inch_hyts.append(hyt)

    # Convert heights to centimeters using nested loop
    heights_cm = []
    for hyt in inch_hyts:

      # calling funtion for convertion
        cm_hyt = inches_to_cm(hyt)
        heights_cm.append(cm_hyt)

    # B.  Convert heights to centimeters using list comprehension
```

Input and Output:



```
Enter the number of customers: 1
Enter customer height 1 (in inches): 13
customer heights  in centimeters (nested loop): [33.02]
customer heights  in centimeters (list-comprehension): [33.02]
```