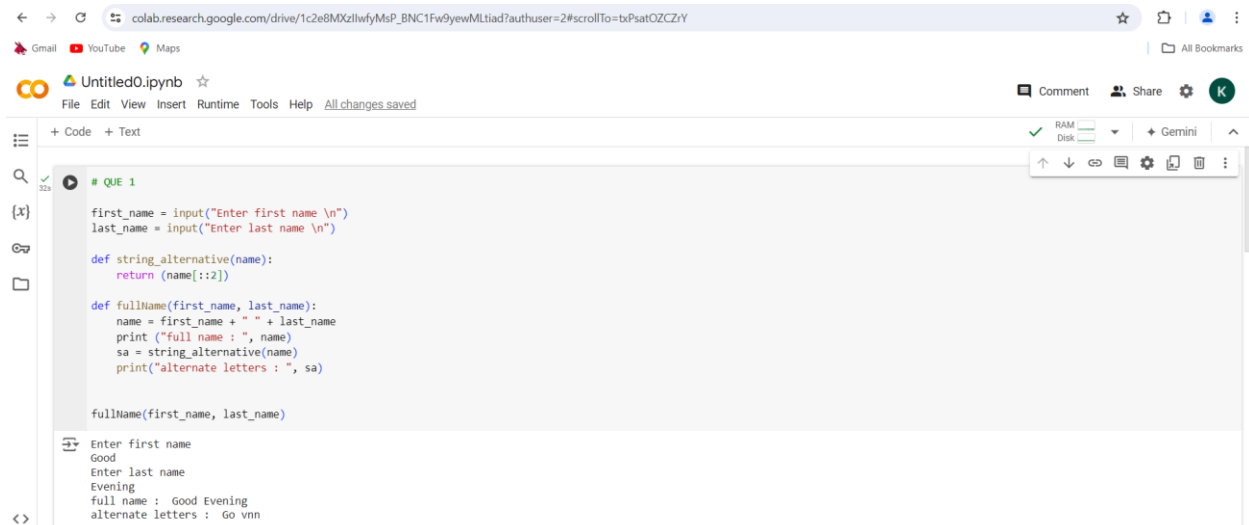


NNDL ASSIGNMENT-2

Video Link:

<https://drive.google.com/file/d/1i6eBTfRCW7xq9W3AJeun0dThQK26gaT2/view?usp=sharing>

Question 1:



```
# QUE 1

first_name = input("Enter first name \n")
last_name = input("Enter last name \n")

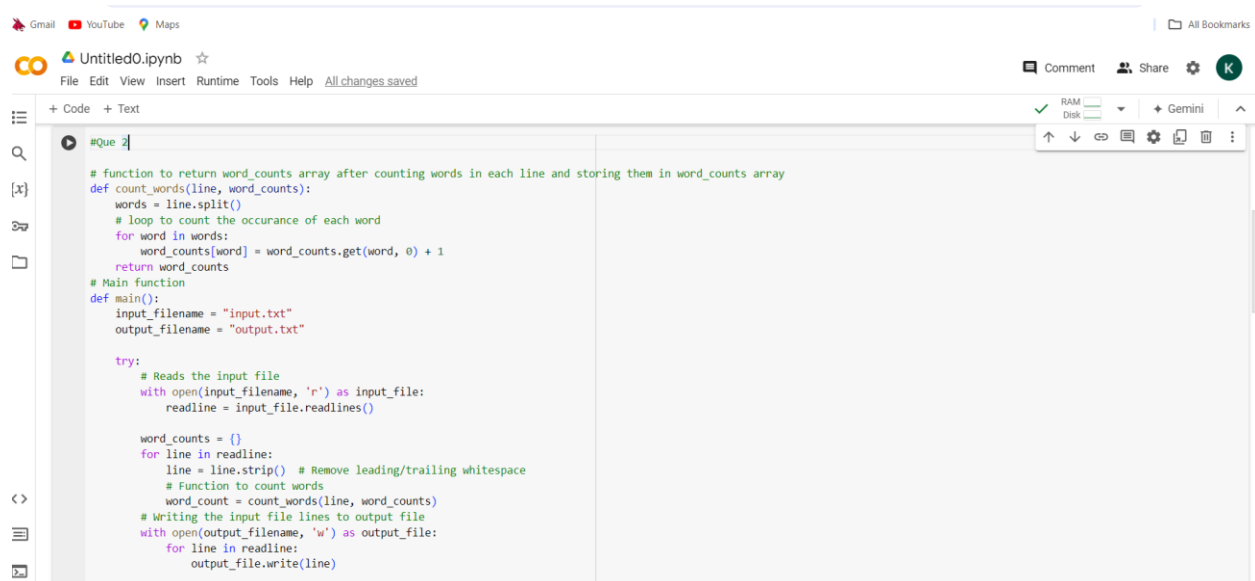
def string_alternative(name):
    return name[::2]

def fullName(first_name, last_name):
    name = first_name + " " + last_name
    print ("full name : ", name)
    sa = string_alternative(name)
    print("alternate letters : ", sa)

fullName(first_name, last_name)
```

Enter first name
Good
Enter last name
Evening
full name : Good Evening
alternate letters : Go vnn

Question 2:



```
#Que 2

# function to return word_counts array after counting words in each line and storing them in word_counts array
def count_words(line, word_counts):
    words = line.split()
    # loop to count the occurrence of each word
    for word in words:
        word_counts[word] = word_counts.get(word, 0) + 1
    return word_counts

# Main function
def main():
    input_filename = "input.txt"
    output_filename = "output.txt"

    try:
        # Reads the input file
        with open(input_filename, 'r') as input_file:
            readline = input_file.readlines()

        word_counts = {}
        for line in readline:
            line = line.strip() # Remove leading/trailing whitespace
            # Function to count words
            word_count = count_words(line, word_counts)
            # Writing the input file lines to output file
            with open(output_filename, 'w') as output_file:
                for line in readline:
                    output_file.write(line)
```

```
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word_count = count_words(line, word_counts)
# Writing the input file lines to output file
with open(output_filename, 'w') as output_file:
    for line in readline:
        output_file.write(line)

    output_file.write("\nWord_Count:\n")
    # Displaying the words and its count in output file
    for word, count in word_counts.items():
        output_file.write(f"{word}: {count}\n")
        print(f"{word}: {count}")

except FileNotFoundError:
    print(f"File '{input_filename}' not found.")

if __name__ == "__main__":
    main()

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

Question 3:

```
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[41] # 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 conversion
        cm_hyt = inches_to_cm(hyt)
        heights_cm.append(cm_hyt)

    # B. Convert heights to centimeters using list comprehension
    heights_comp = [inches_to_cm(height) for height in inch_hyts]

    # print result
    print("customer heights in centimeters (nested loop):", heights_cm)
    print("customer heights in centimeters (list-comprehension):", heights_comp)
```

```
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[41] # Convert heights to centimeters using nested loop
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 conversion
        cm_hyt = inches_to_cm(hyt)
        heights_cm.append(cm_hyt)

    # B. Convert heights to centimeters using list comprehension
    heights_comp = [inches_to_cm(height) for height in inch_hyts]

    # print result
    print("customer heights in centimeters (nested loop):", heights_cm)
    print("customer heights in centimeters (list-comprehension):", heights_comp)

    main()

Enter the number of customers: 4
Enter customer height 1 (in inches): 150
Enter customer height 2 (in inches): 155
Enter customer height 3 (in inches): 145
Enter customer height 4 (in inches): 148
customer heights in centimeters (nested loop): [381.0, 393.7, 368.3, 375.92]
customer heights in centimeters (list-comprehension): [381.0, 393.7, 368.3, 375.92]
```