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**ICP2**

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.

**Code:**

**def string\_alternative(s):**

**return s[::2]**

**def main():**

**first\_name = input("Enter your first name: ")**

**last\_name = input("Enter your last name: ")**

**full\_name = first\_name + " " + last\_name**

**print("Full Name:", full\_name)**

**alternative\_chars = string\_alternative(full\_name)**

**print("String Alternative:", alternative\_chars)**

**if \_\_name\_\_ == "\_\_main\_\_":**

**main()**

o/p:

Enter your first name: satwik

Enter your last name: reddy

Full Name: satwik reddy

String Alternative: sti ed

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

**def main():**

**word\_count = {}**

**with open("C:/Users/shrin/OneDrive/Desktop/input.txt", "r") as file:**

**lines = file.readlines()**

**for line in lines:**

**words = line.strip().split()**

**for word in words:**

**word\_count[word] = word\_count.get(word, 0) + 1**

**with open("C:/Users/shrin/OneDrive/Desktop/output.txt", "w") as file:**

**for line in lines:**

**file.write(line)**

**file.write("Word\_Count:\n")**

**for word, count in word\_count.items():**

**file.write(f"{word}: {count}\n")**

**if \_\_name\_\_ == "\_\_main\_\_":**

**main()**

o/p:

Python Course

Deep Learning CourseWord\_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]

**Code:**

**# Using nested loops**

**def convert\_to\_cm\_nested(heights\_in):**

**heights\_cm = []**

**for height in heights\_in:**

**cm = height \* 2.54**

**heights\_cm.append(round(cm, 2))**

**return heights\_cm**

**# Using list comprehensions**

**def convert\_to\_cm\_comprehension(heights\_in):**

**return [round(height \* 2.54, 2) for height in heights\_in]**

**def main():**

**heights\_in = [150, 155, 145, 148]**

**heights\_cm\_nested = convert\_to\_cm\_nested(heights\_in)**

**print("Nested Loop:", heights\_cm\_nested)**

**heights\_cm\_comprehension = convert\_to\_cm\_comprehension(heights\_in)**

**print("List Comprehension:", heights\_cm\_comprehension)**

**if \_\_name\_\_ == "\_\_main\_\_":**

**main()**

o/p:

Nested Loop: [381.0, 393.7, 368.3, 375.92]

List Comprehension: [381.0, 393.7, 368.3, 375.92]