GITHUB :- https://github.com/BXP11850/Neural-Networks-Deep-Learning-Assignments-BXP11850/tree/main/Assignment-1

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.

A screenshot of a computer program

Description automatically generated

1. **fullname Function**: This function takes two inputs, first\_name and last\_name, and concatenates them with a space in between to create the full name.

2. **string\_alternative Function**: This function uses slicing ([::2]) to select every other character from the full\_name string.

3. **main Function**:

• It first collects first\_name and last\_name from the user.

• Then, it calls fullname to create the full name.

• Finally, it calls string\_alternative to generate a string containing every other character from the full name and prints the results.

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.

A screen shot of a computer program

Description automatically generated

1. **Read the Input File**: The with open(input\_file, 'r') as infile: statement opens input.txt for reading. infile.readlines() reads all lines into a list.

2. **Count Words**: For each line, line.strip().split() splits the line into words, and len() counts the number of words. This count is appended to the word\_counts list.

3. **Print Word Counts**: Each line’s word count is printed to the console.

4. **Write to Output File**: The with open(output\_file, 'w') as outfile: statement opens output.txt for writing. For each line’s word count, a formatted string is written to the file.

5. **Exception Handling**: The program handles exceptions for file not found and other errors.

3. Write a program, which reads heights (inches.) of customers into a list and convert these

3 .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]

A computer screen shot of a program

Description automatically generated

**Explanation:**

1. **Nested Interactive Loop**:

• **Function**: convert\_heights\_nested\_loop iterates over each height in the inches\_list, converts it to centimeters, and appends the result to cm\_list.

• **Conversion Factor**: 2.54 is used to convert inches to centimeters.

2. **List Comprehensions**:

• **Function**: convert\_heights\_list\_comprehension uses a single line of code to achieve the same result as the nested loop but in a more concise form.