# Neural Network Deep Learning (23442)

Assignment\_2

https://github.com/niteesh0301/Assignment\_2.git

**1(a) Solution:-**

**Code:-**

A close-up of a computer screen

Description automatically generated

**Output:-**

**A screenshot of a computer

Description automatically generated**

**Explanation :-** The actual output will depend on the user input. In this example, the script prompts the user to enter their first and last names, then prints the full name and an alternate string derived from it.

**2(a) Solution:-**

**Code:-**

A screenshot of a computer program

Description automatically generated

**Output:-**

A computer screen shot of a computer code

Description automatically generated

**Explanation :-** This Python script reads text from an input file (input.txt), tokenizes the words in each line, counts the occurrences of each word using the Counter class from the collections module, and then prints the original lines, word count, and writes the same information to an output file (output.txt). The script handles file errors and utilizes regular expressions (re) to extract words. The input and output file paths are specified, and the main functionality is encapsulated in the main() function, executed only if the script is run directly.

**3(a) Solution:-**

**Code:-**

A screenshot of a computer program

Description automatically generated

**Output:-**

A screenshot of a computer

Description automatically generated

**Explanation :-** This Python script takes user input for the number of elements in a list and then prompts the user to enter each element (assumed to be in inches). It calculates the corresponding heights in centimeters using a loop and list comprehension. The results are stored in two separate lists, height\_cm using a traditional loop and list\_comprehension\_output using list comprehension. Finally, the script prints both lists containing the heights in centimeters. The conversion factor from inches to centimeters (2.54) is applied in both cases.