

# Assignment 2 – ICP\_1\_Spring24

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Github Link : <https://github.com/Sai-Nalla/NNDL.git>

Recorded Video : <https://drive.google.com/file/d/15HdaCDzMzFjD-ft5Xm41JN4DfWHQ1akJ/view?usp=drivesdk>

## Technical Document

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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

```
def full_name():
    try:
        f_name = str(input("Enter your first_name :"))
        l_name = str(input("Enter your last_name:"))
        if validateString(f_name) and validateString(l_name):
            full_name = f_name + " " + l_name
            print(full_name)
            return full_name
        else:
            print("please enter a valid string")
    except Exception as error:
        print("Error occurred {}".format(error))

def validateString(name):
    if name != '' and name is not None and name.isspace() != True and name.isnumeric() != True:
        return True
    else:
        return False
```

```
def string_alternative(full_name):
    try:
        alt_name = full_name
        print(alt_name[::-2])
    except Exception as error:
        print("Error occurred {}".format(error))

if __name__ == "__main__":
    inp_name = full_name()
    string_alternative(inp_name)
```

## Output

```
Run: pg_1 x
C:\Users\chinna\AppData\Local\Programs\Python\Python310\python.exe D:/Sai/ICP_NNDL_2/pg_1.py
Enter your first_name :Krishna
Enter your last_name:Raj
Krishna Raj
KihaRj
Process finished with exit code 0
```

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

```
pg_2.py x pg_1.py x pg_3.py x
1 with open('input.txt','r') as input_file:
2     a = dict()
3     data = []
4     for sentence in input_file:
5         sentence = sentence.strip()
6         sentence = sentence.lower()
7         words = sentence.split(" ")
8         data.append(sentence)
9         for word in words:
10             if word in a:
11                 a[word] = a[word] + 1
12             else:
13                 a[word] = 1
14     with open('Output.txt','w') as output_file:
15         for x in data:
16             print(x,file=output_file)
17         print("word_Count :",file=output_file)
18         for key in list(a.keys()):
19             print(key," :",a[key],file=output_file)
```

recording | Output | input | Output x + - □ x

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```
python course
deep learning course
word_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

```
pg_2.py x pg_1.py x pg_3.py x
1 list_heights = []
2 heights_in_cm = []
3 while True:
4     h1 = input("Enter heights of customers(inches) (press q to quit):")
5     if h1 == 'q':
6         break
7     else:
8         list_heights.append(h1)
9
10 print("L1: ", list_heights)
11 heights_in_cm = [int(height) * 2.54 for height in list_heights]
12 print("Output: ", heights_in_cm)
```

## Output

```
Run: pg_1 x pg_3 x
C:\Users\chinna\AppData\Local\Programs\Python\Python310\python.exe D:/Sai/ICP_NNDL_2/pg_3.py
Enter heights of customers(inches) (press q to quit):20
Enter heights of customers(inches) (press q to quit):12
Enter heights of customers(inches) (press q to quit):q
L1: ['20', '12']
Output: [50.8, 30.48]

Process finished with exit code 0
```