ICP 2

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Google Drive Link :
https://drive.google.com/file/d/1a_A2kgSnic3fGUvHCtuFoirJmvV5wylp/view?usp=drive_link

Github Link: https://github.com/Sampath119/ICP-2-

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.

ANS: It takes two strings (first_name and last_name) from the user, combines them into a full name, and then passes this full name to a function called string_alternative which returns every other character in the full name string.

Source Code:

[2]:
```
## Task 1
#author: SampathKumar Medam
#Enter the first name by user
first_name= input("enter first name : ")
#Enter the last name by user
last_name= input("enter last name : ")

#full_name is both first name and last name
def full_name(first_name,last_name):
    return first_name +" "+last_name
#string_alternative function will prints the data alternatively
def string_alternative(full_name):
    new_str = ""
    for index in range(0,len(full_name),2):
                    new_str+=full_name[index]
    return new_str


print("User full name : ",full_name(first_name,last_name))

print("Alternate String : ",string_alternative(full_name(first_name,last_name)))
```

Result:

```
#full_name is both first name and Last name
def full_name(first_name,last_name):
    return first_name +" "+last_name
#string_alternative function will prints the data alternatively
def string_alternative(full_name):
    new_str = ""
    for index in range(0,len(full_name),2):
                    new_str+=full_name[index]
    return new_str


print("User full name : ",full_name(first_name,last_name))

print("Alternate String : ",string_alternative(full_name(first_name,last_name)))
```

```
enter first name :  Medam
enter last name :  SampathKumar
User full name :  Medam SampathKumar
Alternate String :  MdmSmahua
```

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

Ans: Here's a Python program that reads a file (input.txt), counts the occurrences of each word on each line, prints the results, and then stores the output in another file (output.txt):

Input file:

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

Source code:

```
## Task 3
## author: SampathKumar Medam
with open('input.txt','r') as input_file:
        a = dict()
        for sentence in input_file:
            sentence = sentence.strip()
            sentence = sentence.lower()
            words = sentence.split(" ")
            for word in words:
                if word in a:
                    a[word] = a[word] + 1
                else:
                    a[word] = 1
        with open('Output.txt','w') as output_file:
            for key in list(a.keys()):
                print(key,":",a[key],file = output_file)
```

Result:

```
1    Python Course
2    Deep Learning Course
3     Word_Count : Python:1
4    Course:2
5    Deep:1
6    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

Ans: converting heights from inches to centimeters using nested loops and list comprehensions.

Source Code:

```
## Task2
## author : SampathKumar Medam
heights_list = []
heights_in_cm = []
#Enter the heights of customers
while True:
    inp_1 = input("Enter heights of customers(inches) (press q to quit):")
    if inp_1 == 'q':
        break
    else:
        heights_list.append(inp_1)

print("L1: ",heights_list)
heights_in_cm = [int(height) * 2.54 for height in heights_list]
print("Output: ", heights_in_cm)
```

```
Enter heights of customers(inches) (press q to quit):
```

Result:

```
## Task2
## author : SampathKumar Medam
heights_list = []
heights_in_cm = []
#Enter the heights of customers
while True:
    inp_1 = input("Enter heights of customers(inches) (press q to quit):")
    if inp_1 == 'q':
        break
    else:
        heights_list.append(inp_1)

print("L1: ",heights_list)
heights_in_cm = [int(height) * 2.54 for height in heights_list]
print("Output: ", heights_in_cm)
```

```
Enter heights of customers(inches) (press q to quit): 10
Enter heights of customers(inches) (press q to quit): 12
Enter heights of customers(inches) (press q to quit): 13
Enter heights of customers(inches) (press q to quit): 15
Enter heights of customers(inches) (press q to quit): q
L1:  ['10', '12', '13', '15']
Output:  [25.4, 30.48, 33.02, 38.1]
```