DOCUMENTATION

CODE EXPLANATION

This is a Python program that takes user inputs and performs operations on strings. Let's go through the code step by step:

import os: Importing the os module, which provides a way of interacting with the operating system.

while(True):: Starting a while loop that runs indefinitely until it is explicitly broken.

p=input("\n==========string comparison==========\nHi Enter user name: "): Taking input from the user and storing it in the variable p. The input prompt also includes a long line of "=" characters for formatting.

print("----------Hi "+p+"----------"): Printing a greeting message that includes the user's input name.

a=int(input("How many strings you want to compare : ")): Taking input from the user on the number of strings they want to compare, and converting it to an integer. The input is stored in the variable a.

if a >1 and a<=5:: Checking if the value of a is greater than 1 and less than or equal to 5.

b=[]: Creating an empty list b.

count=0: Initializing the variable count with the value of 0.

for i in range(a):: Starting a for loop that iterates a number of times.

c=input("Enter string "+str(i+1)+" :"): Taking input from the user for a string and storing it in the variable c. The input prompt includes the iteration number for formatting.

if c.isalpha():: Checking if the input string c consists only of alphabets.

b.append(c): If the input string consists only of alphabets, adding it to the list b.

else: print("You have entered an invalid input"): If the input string does not consist only of alphabets, printing an error message.

count=1 break: Setting the value of count to 1 and breaking the for loop if an invalid input is detected.

if count!=1:: Checking if count is not equal to 1 (i.e., if all input strings are valid).

if a==2: imp=input("Do you want to add another string press y/n : "): If the value of a is 2, asking the user if they want to add another string.

if imp=="y": b.append(input("Please Enter string 3 :")) a+=1: If the user wants to add another string, taking input from the user for the third string and adding it to the list b. The value of a is also incremented.

print("Press 'v' for vowels\npress 'c' for consonets\npress 'vc' for both vowels and consonets"): Printing instructions for the user on how to select the type of operation to perform on the strings.

k=input("Please provide your input: "): Taking input from the user for the type of operation to perform, and storing it in the variable k.

The for loop is used to execute a set of statements repeatedly for a specified number of times. In the given code, a for loop is used to iterate through the strings entered by the user and count the number of vowels and consonants in each string. The loop is defined using the syntax "for i in b:", where "b" is a list of strings entered by the user. The loop variable "i" takes the value of each string in the list "b" for each iteration of the loop.

vowel=["a","e","i","o","u","A","E","I","O","U"]: Creating a list vowel that contains all the vowels (both uppercase and lowercase).

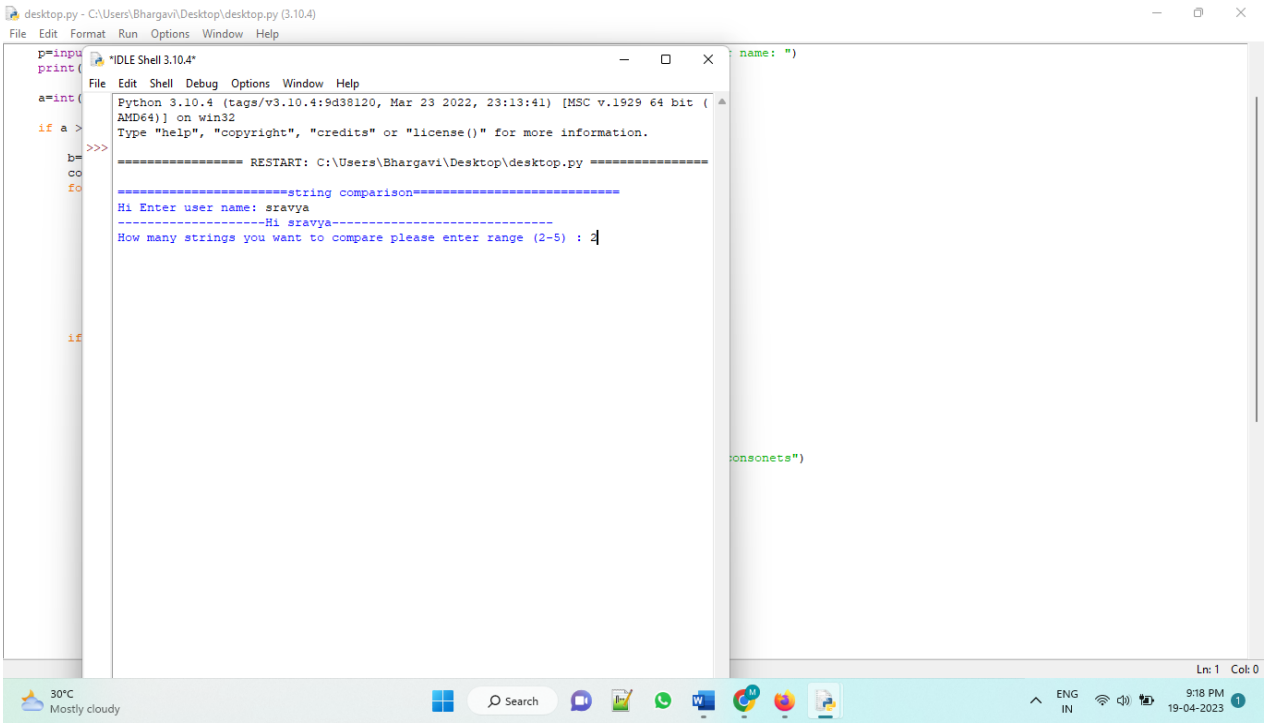
V=0 C=0: Initializing the variables V and C with the value of 0.

Inside the loop, another loop is defined using the syntax "for j in i:", where "i" is the string being processed and "j" is each character in the string. The loop is used to count the number of vowels and consonants in the string. If the character "j" is a vowel, the variable "V" is incremented by 1. If it is a consonant, the variable "C" is incremented by 1.

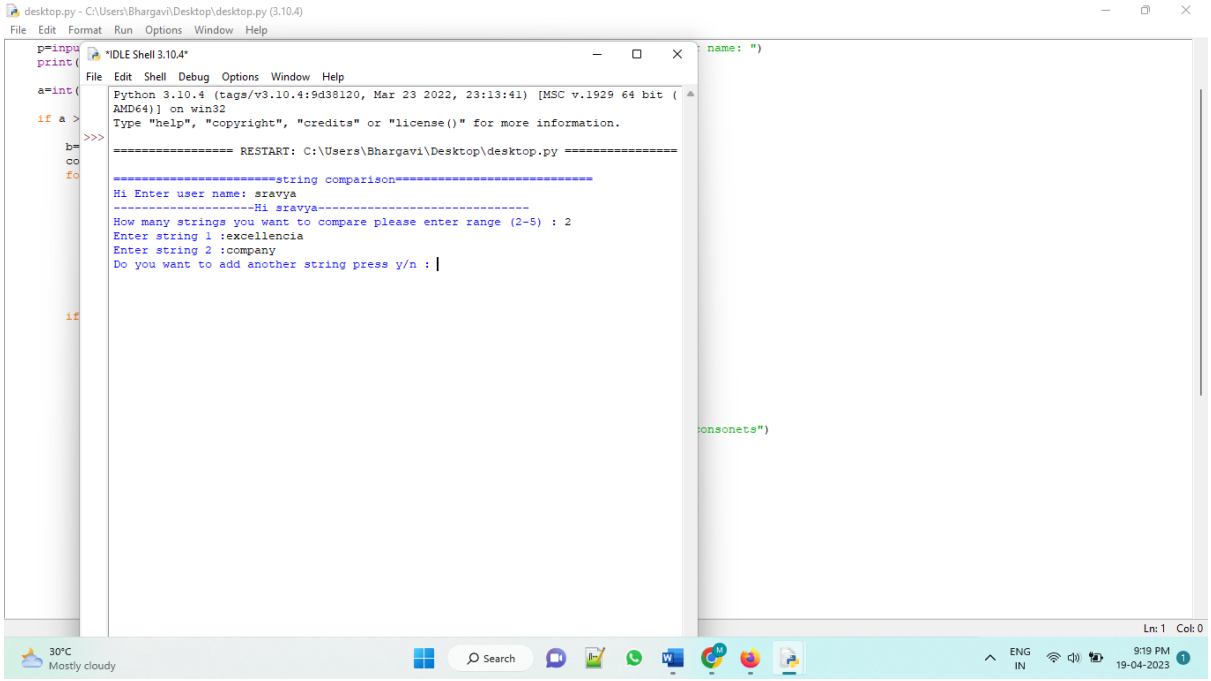
Based on the user's input, the loop then prints the count of vowels and/or consonants in each string. If the user enters 'v', only the count of vowels is printed. If the user enters 'c', only the count of consonants is printed. If the user enters 'vc', both the counts of vowels and consonants are printed and else it breaking the loop.

Else: if the user enters a number less than or equal to 1 or greater than 5, the program asks the user if they want to reset or exit. If the user chooses to reset, the program continues running, otherwise, it breaks out of the loop and exit

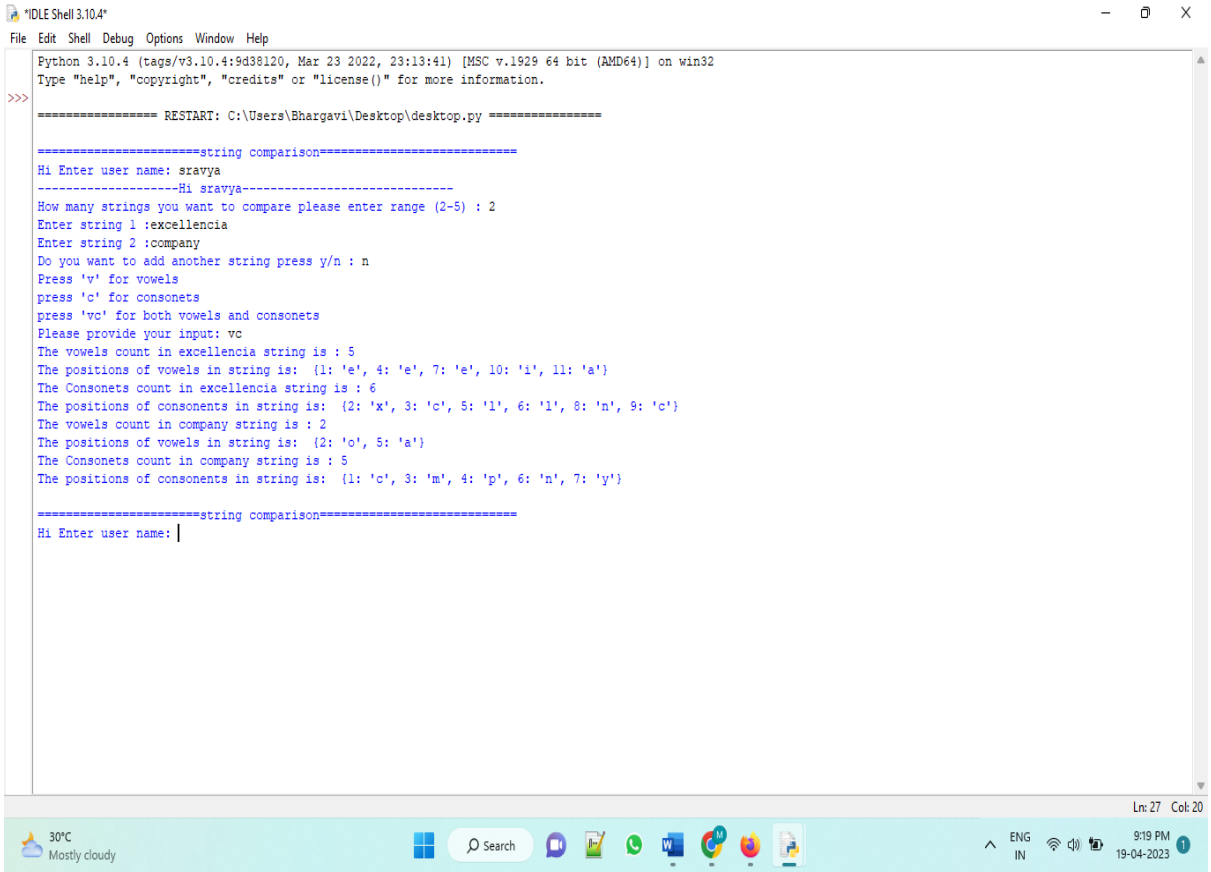
Enter user name and Select how many strings to compare



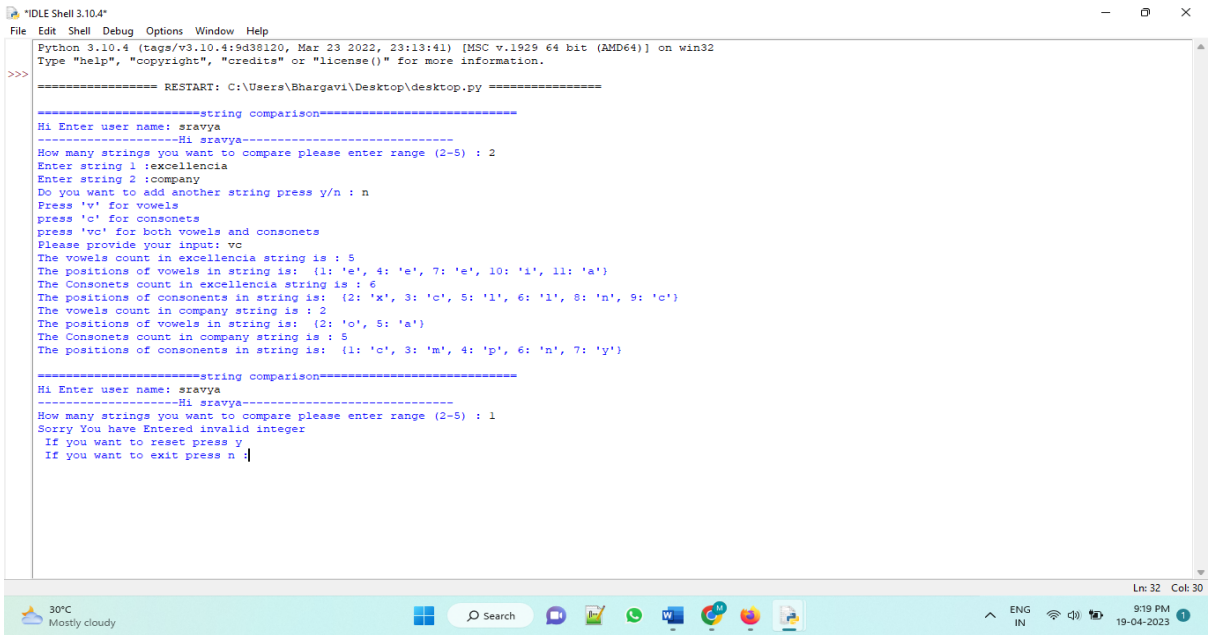
Enter the strings press enter it asks do you want to add another string press y or press n



Press v to find vowels, c to find consonants and vc to find both vowels & consonants



If user enter invalid integer, press y to reset or n or exit



If the user chooses to reset, the program continues running.