Assignment No 3:

Aim: Write python program for string operations – copy, concatenate, check substring, equal, reverse and length.

Theory: In Python, you can replicate the values of a string. You can simply multiply the string by the number, which results in the number of times you want to replicate, it in this case three. The result is a new string. Because it contains the copy of the original string.

One of the simplest and most common methods of concatenating strings in Python is to use the + operator. The way that this works is that using the + operator joins two strings together. In the case of strings, the + operator acts as the concatenation operator.

Slicing the string by specifying the starting index and the ending index of the string will return the substring, which lies in the index range. While providing the index range for slicing, the first index number is inclusive, while the second is exclusive.

The __eq__ () function to perform string equals check in python The eq () function basically compares two objects and returns True if found equal, otherwise, it returns False.

How to reverse a string in Python by using negative indexing Using the step as a negative number means that slicing will now begin from the end of the string to the beginning, i.e from the right to the left. This returns the copy of the string object with the letters reversed as shown below.

The len () function gives us the total length or number of characters that were present inside the given string. Syntax: The python length function's basic structure is a character 'len' followed by the string or a variable with string data type inside a round bracket.

Objective: To learn various string operations.

Code:

```
s1 ="Sourav is brother of Gaurav."
s2 =" Sourav lives in a hostel"

#copy
name = "Sourav"
copy = name[:]
print(copy)
```

```python
#concatenate
concatenate = s1+s2
print(concatenate)

#substring
s4=input("Enter the word to find in strings: \n")
s5=concatenate.find(s4)
if s4 in concatenate:
    print("Word found")
else:
    print("Word not found")

#equal
print("Enter 2 words to check if they are equal: \n")
var1 = input()
var2 = input()
if var1==var2:
    print("Words are equal.")
else:
    print("Words are not equal.")


#resverse string
s3 = s1[::-1]
print("The reverse of s1 is: ", s3)

#length of string
print("Length of s1 is: ",len(s1))
```

Output:

```
C:\Users\soura\AppData\Local\Microsoft\WindowsApps\python3.10.exe "C:/SOURAV/CODE/Python codes/Python Assignment/Assignment3.py"
Sourav
Sourav is brother of Gaurav. Sourav lives in a hostel
Enter the word to find in strings:
is
Word found
Enter 2 words to check if they are equal:

Sourav
Sourav
Words are equal.
The reverse of s1 is:  .varuaG fo rehtorb si varuoS
Length of s1 is:  28

Process finished with exit code 0
```

Conclusion: There are many ways to perform these operations and also perform different operation.