



CourseName: Advance Python Programming

Course code: 22CSH-623

Experiment-1.6

A) Aim: Write a python program to demonstrate the use of string functions.

Tools/Software Required: VS Code, Python

Description:

In this program, we are demonstrating the use of string functions. We are using len(), lower(), upper(), replace(), split(), join(), find(), count(), strip(), startswith(), endswith(), isalpha(), isdigit(), isalnum().

Steps:

1. Take input from the user.
2. Use len() to find the length of the string.
3. Use lower() to convert the string to lowercase.
4. Use upper() to convert the string to uppercase.
5. Use replace() to replace a substring in the string.
6. Use split() to split the string into substrings.
7. Use join() to join the substrings into a string.
8. Use find() to find the index of a substring in the string.
9. Use count() to count the number of occurrences of a substring in the string.
10. Use strip() to remove the leading and trailing whitespaces from the string.
11. Use startswith() to check if the string starts with a substring.
12. Use endswith() to check if the string ends with a substring.
13. Use isalpha() to check if the string contains only alphabets.
14. Use isdigit() to check if the string contains only digits.
15. Use isalnum() to check if the string contains only alphabets and digits.

Implementation:

```
n = input("Enter a string: ")
print("String Length: ", len(n))
print("String Lowercase: ", n.lower())
print("String Uppercase: ", n.upper())
```

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```
print("String Replace " " with " ": ", n.replace(' ',  
'-'))  
print("String Split by " ": ", n.split(' '))  
print("String Join by " ": ", ' '.join(n))  
print("String Find " " : ", n.find(' '))  
print("String Count " " : ", n.count(' '))  
print("String Strip: ", n.strip())  
print("String Startswith " " : ", n.startswith(' '))  
print("String Endswith " " : ", n.endswith(' '))  
print("String isalpha: ", n.isalpha())  
print("String isdigit: ", n.isdigit())  
print("String isalnum: ", n.isalnum())
```

Output:

```
$ python string.py  
Enter a string: Hello World, I'm Balveer Singh.  
String Length: 31  
String Lowercase: hello world, i'm balveer singh.  
String Uppercase: HELLO WORLD, I'M BALVEER SINGH.  
String Replace with : Hello-World,-I'm-Balveer-Singh.  
String Split by : ['Hello', 'World,', 'I'm', 'Balveer', 'Singh.']  
String Join by : H e l l o   W o r l d ,   I ' m   B a l v e e r   S i n g h .  
String Find : 5  
String Count : 4  
String Strip: Hello World, I'm Balveer Singh.  
String Startswith : False  
String Endswith : False  
String isalpha: False  
String isdigit: False  
String isalnum: False  
(venv)
```



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B) Aim: Write a python program to reverse a string without using an inbuilt function.

Tools/Software Required: VS Code, Python

Description:

In this program, we are reversing a string without using an inbuilt function. We are using for loop to iterate over the string and concatenating each character to the str variable. Finally, we are returning the reversed string.

Steps:

1. Take input from the user.
2. Initialize str = ""
3. Use for loop to iterate over the string.
4. Concatenate each character to the str variable.
5. Return the reversed string.

Implementation:

```
def reverse(s):  
    str = ""  
    for i in s:  
        str = i + str  
    return str  
  
s = input("Enter a string: ")  
print ("The reversed string(using loops) is : ",  
reverse(s))
```

Output:

```
$ python reverse.py  
Enter a string: Hello World  
The original string is : Hello World  
The reversed string(using loops) is : dlroW olleH
```

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C) Aim: Write a python program to concatenate two strings without using an inbuilt function.

Tools/Software Required: VS Code, Python

Description:

In this program, we are concatenating two strings without using an inbuilt function. We are using for loop to iterate over the string and concatenating each character to the str variable. Finally, we are returning the concatenated string.

Steps:

1. Take input from the user.
2. Initialize str = ""
3. Use for loop to iterate over the string.
4. Concatenate each character to the str variable.
5. Return the concatenated string.

Implementation:

```
def concatenate(s1, s2):  
    str = ""  
    for i in s1:  
        str += i  
    for i in s2:  
        str += i  
    return str  
  
s1 = input("Enter first string: ")  
s2 = input("Enter second string: ")  
print ("The concatenated string is : ", concatenate(s1,  
s2))
```

Output:

```
$ python concatenate.py  
Enter first string: Hello  
Enter second string: World  
The concatenated string is : Hello World
```