Q1) Program for Concatenation of Two or More Strings

- Joining of two or more strings into a single one is called **concatenation**.
- The + operator does concatenation in Python. Simply writing two string literals together also concatenates them.
- The * operator can be used to repeat the string for a given number of times.

Program

```
# Python String Operations
str1 = 'PythonLab'
str2 =ClassA!'

# using +
print('str1 + str2 = ', str1 + str2)

# using *
print('str1 * 3 =', str1 * 3)
```

Output

```
str1 + str2 = PythonLabClassA!
str1 * 3 = PythonLabPythonLabPythonLab
```

Q٢) Program print String Length

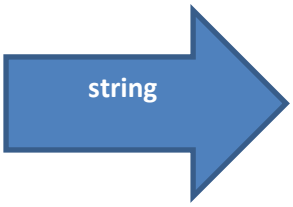
- To get the length of a string, use the **len()** function.
- The len() function returns the length of a string:

Program

```
a = "Python Lab, Class A:"
print(len(a))
```

Output

20



location	char	location	char
a[0]	P	a[10]	,
a[1]	y	a[11]	
a[2]	t	a[12]	C
a[3]	h	a[13]	l
a[4]	o	a[14]	a
a[5]	n	a[15]	s
a[6]		a[16]	s
a[7]	L	a[17]	
a[8]	a	a[18]	A
a[9]	b	a[19]	:

Q3) Program to Changing upper and lower case strings

In Python, you can even change the string to upper case or lower case.

Program

```
string1="python version 9"
string2=”CLASS A LAB”
# change characters of string 1 to uppercase
print(string1.upper())

# change characters of string 2 to lowercase
print(string2.lower())
```

Output

```
PYTHON VERSION 9
class a lab
```

Q4) Program for join String

- **Using "join"** function for the string
- The **join** function is a more flexible way for concatenating string.
- With join function, you can add any character into the string.

Program

```
# For example, if you want to add a colon (:) after every character in the string "Python" you can use the following code.
print(":".join("Python"))
```

Output

```
P:y:t:h:o:n
```

Q5) Program for Reversing String

By using the **reverse** function, you can reverse the string.

Program

```
# for example, string1 is "12345"
# if you apply the code for the reverse function string1 equal 54321

String1="12345"
print(''.join(reversed(string1)))
```

Output

```
54321
```

Q6) Program for Check String

- To check if a certain phrase or character is present in a string, we can use the keyword in.
- Return True or False

Program

```
string1 = "The best things in life are free!"
print("free" in string1)
```

Output

```
True
```

Q7) Program for multiline String

- You can assign a multiline string to a variable by using three quotes:

Program

```
a= """IDLE is a simple integrated development environment (IDE),
that comes with Python. ,
It’s a program that allows you to type in your programs and run them.,
 There are other IDEs for Python,
 But for now I would suggest sticking with IDLE as it is simple to use,
 You can find IDLE in the Python"""
 print(a)
```

Output

```
IDLE is a simple integrated development environment (IDE),
that comes with Python. ,
It’s a program that allows you to type in your programs and run them.,
 There are other IDEs for Python,
 But for now I would suggest sticking with IDLE as it is simple to use,
 You can find IDLE in the Python
```

Q8) Program for Split Strings

- Split strings is function that can be applied in Python

Program

```
# for string " DataStrucrure Lab ClassA ".
# split the string by using the command word.split and get the result.
    word="DataStrucrure Lab ClassA"
    print(word.split(' '))   #one space between ' '
```

Output

```
[' DataStrucrure ', ' Lab', ' ClassA']
```

Q9) Program for Get the characters of Strings

- Get the characters of ‘Hello World’ string from index 2 to index 4 (llo).

Program

```
txt = "Hello World"
x=txt[2:5]
print(x)
```

Output

```
llo
```

Q10) Program for replace the characters of Strings

- Replace the characters of 'Hello World' string (character H with a J)

Program

```
txt = "Hello World"
txt=txt.replace('H', 'J')
print (txt)
```

Output

```
Jello World
```