BRAINWARE UNIVERSITY
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Laboratory Report / Workshop / Assignment Submission
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Lab Report No: -

Topic Title: -

Name of the Department: - Cyber Science & Technology

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Course Code: - VAC09009

Course Name: - Python Programming Lab

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19.02.25

Assignment - 3.2 19.02.25

String in Python

A string in python is a sequence of charecters enclosed in (' ') single (" ") double or (""" """) tripple quotes, strings are immutable meaning their content can't be changed after creation. Strings can contain letters, number, symbols and spaces.

Type of String Operations :

1. Creating Strings: Strings can be created using the quotes.

```
Input:  print ("Hello")
Output: Hello
```

2. Accessing String Charecters: Strings are indexed starting from zero.

```
Input:  a = ("Hello")
        print (a[2])
Output: l
```

3. String Slicing: Slicing allows extracting a sub string from a string.

```
Input:  text = "Hello, World!"
        sliced = text[0:5]
        Print (sliced)
Output: Hello
```

4. String Operation:

4. a) Concatination (+): Addition of two strings.

```
Input:  a = "Hello"
        b = "World"
        add = a + b
        Print = (add)
Output: HelloWorld
```

b) Repetition (*) : Repetation is used to print the string multiple times.

```
Input: s = "hello"
       rep = s * 3
       print (rep)
```

Output : hellohellohello

4.c) Membership (in, not in): Using the membership string operation we can find if a sub string is present in the string or not.

```
Input:  a = "S get lost"
        print ('get' in a)
Output: True
```

5. Common String Methods:

5.a) Changing Case (s.upper()), (s.lower()), (s.title()), (s.capitalize())

```
Input:  a = "I amhere"
        print (a.upper())
        print (a.lower())
        print (a.title())
```

Output:
I AM HERE
i am here
I Am Here

5.b) Searching: Using searching method we can count the string index or occurences.
(a.find(" ") (a.count(" "))

```
Input:  a = "I am Here"
        print (a.find("am"))
```

Output: 1

5.c) Replacing Text: Using this we can replace string.

```
Input:  a = "I am Here"
        print (a.replace("am", "is"))
```

Output: I is Here

6. String formating: For string formating we use "f" string after python 3.6 version.

```
Input:  a = 21
        txt = f"age of Raj is {a}"
        print (txt)
```

Output:

7. Escape Sequence: It allows inserting special charecters in string for special operations

print(f" Rajdeep\ Hello

8. Converting Data to String:

```
num = 123
a = str(num)
```

In this way we can convert any integer or any other data types into string format.

Example of String Formating:

Input:
```
name = "Alice"
age = 30
print(f"Name: {name}, Age: {age}")
```

Output: Name: Alice, Age: 30

Example of Escape Sequence:

Input:
```
print("Hello\nWorld!\tThis is Python.")
```

Output:
```
Hello
World!	This is Python.
```

Explaination : \n creates a new line.
\t adds a tab space.