

1. What are escape characters, and how do you use them?

Ans:- Escape characters are special character that has special purpose in regards of a string.

1. \ (Custom backslash) : It is used to insert any illegal character inside a string.
2. \ (Single quotes) : It is used to insert single quotes inside a string enclosed with single quotes.
3. \\ (backslash) : It is used to insert a backslash inside a string.
4. \n (New Line) : It shifts character after \n in a string to new line.
5. \r (Carriage Return) : It moves character after \r to the front of a string while deleting existing characters.
6. \t (tab) : It places a tab between characters before and after \t in a string.
7. \b (backspace) : It inserts deletes a character before \b in a string.

For example:

```
In [1]: s = "radha is \"skilled\" in DataScience"
print(s)
```

radha is "skilled" in DataScience

```
In [2]: s = 'Radha is \'skilled\' in Python'
print(s)
```

Radha is 'skilled' in Python

```
In [3]: s = 'Radha is \\skilled\\ in Python'
print(s)
```

Radha is \skilled\ in Python

```
In [4]: s = 'Radha is \nskilled\nin Python'
print(s)
```

Radha is
skilled
in Python

```
In [5]: s = 'Radha is skilled in programming\rPython'
print(s)
```

Pythonis skilled in programming

```
In [6]: s = 'Radha is\tskilled in Python'
print(s)
```

Radha is skilled in Python

```
In [7]: s = 'Radha is\b skilled in Python'
        print(s)
```

Radha i skilled in Python

2. What do the escape characters n and t stand for?

Ans:- Escape characters 'n' and 't' stand for 'newline' and 'tab' respectively.

3. What is the way to include backslash characters in a string?

Ans:- Backslash characters is '\\'

4. The string "Howl's Moving Castle" is a correct value. Why isn't the single quote character in the word Howl's not escaped a problem?

Ans:- This would create a problem when string is enclosed in single quotes. Then interpreter will not be able to understand which is actual enclosing quotes for the string and will throw syntax error. **For example**

```
In [8]: s = "Howl's Moving Castle"
        print(s)
```

Howl's Moving Castle

```
In [9]: s = 'Howl's Moving Castle'
        print(s)
```

```
File "C:\Users\user\AppData\Local\Temp\ipykernel_7944\3296013669.py", line 1
```

```
    s = 'Howl's Moving Castle'
          ^
```

SyntaxError: invalid syntax

5. How do you write a string of newlines if you don't want to use the n character?

Ans: By enclosing string inside triple quotes and using multiple lines inside triple quotes. **For example**

```
In [11]: s = """I want to become
a Data Scientist with
good knowledge of
Python, SQL, ML, DL, etc.
"""
print(s)
```

I want to become
a Data Scientist with
good knowledge of
Python, SQL, ML, DL, etc.

6. What are the values of the given expressions?

Ans:-

1. 'Hello, world!'[1] :: Value will be 'e'
2. 'Hello, world!'[0:5] :: Value will be 'Hello'
3. 'Hello, world!':[5] :: Value will be 'Hello'
4. 'Hello, world!'[3:] :: Value will be 'lo, world!'

7. What are the values of the following expressions?

Ans:

1. 'Hello'.upper() :: Value will be 'HELLO'
2. 'Hello'.upper().isupper() :: Value will be True
3. 'Hello'.upper().lower() :: Value will be 'hello'

8. What are the values of the following expressions?

1. 'Remember, remember, the fifth of July.'.split() will be ['Remember,', 'remember,', 'the', 'fifth', 'of', 'July.']
2. '-'.join('There can only one.'.split()) will be 'There-can-only-one.'

The Execution is as shown below:

```
In [12]: 'Remember, remember, the fifth of July.'.split()
```

```
Out[12]: ['Remember,', 'remember,', 'the', 'fifth', 'of', 'July.']
```

```
In [13]: '-'.join('There can only one.'.split())
```

```
Out[13]: 'There-can-only-one.'
```

9. What are the methods for right-justifying, left-justifying, and centering a string?

Ans:-

1. `rjust()`
2. `ljust()`
3. `center()`

For Example

```
In [14]: # rjust here fillchar * is optional
s = "My name is shubham"
s.rjust(30, '*')
```

```
Out[14]: '*****My name is shubham'
```

```
In [15]: # ljust here fillchar $ is optional
s.ljust(30, '$')
```

```
Out[15]: 'My name is shubham$$$$$$$$$$$$$'
```

```
In [16]: # center here fillchar # is optional
s.center(30, '#')
```

```
Out[16]: '#####My name is shubham#####'
```

10. What is the best way to remove whitespace characters from the start or end?

Ans:- Best way to remove whitespace characters from the start or end of string is `lstrip()` and `rstrip()` respectively. Also one more function is there called `strip()` which removes whitespaces from start and beginning of string.

For example:

```
In [17]: # lstrip() is used to remove whitespace from start of string
s = "    My name is shubham    "
s.lstrip()
```

```
Out[17]: 'My name is shubham    '
```

```
In [18]: # rstrip() is used to remove whitespace from end of string
s = "    My name is shubham    "
s.rstrip()
```

```
Out[18]: '    My name is shubham'
```

```
In [19]: # strip() is used to remove whitespace from start and end of string  
s = "    My name is shubham    "  
s.strip()
```

```
Out[19]: 'My name is shubham'
```

```
In [ ]:
```

```
In [ ]:
```