

Section 8

More About Strings

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Contents

1	Advanced String Syntax	1
1.1	Escape Characters	1
1.2	Raw Strings	2
1.3	Multiline Strings with Triple Quotes	2
1.4	Similarities Between Strings and Lists	3

1 Advanced String Syntax

Text is one of the most common forms of data that we will work with.

How do we add quotes and apostrophes in Python Strings?

1.1 Escape Characters

```
print("Hello")
print('That is Alice\'s cat')
print('Say hi to Bob\'s mother')
```

```
Hello
That is Alice's cat
Say hi to Bob's mother
```

We can have several different types of escape characters.

1. `\'` - Prints as Single quote

2. `\“` - Prints as Double quote
3. `\t` Prints as tab
4. `\n` - Prints as newline
5. `\"` - Prints as backslash.

```
print("Hello there!\nHow are you?\nI\'m fine")
```

```
Hello there!  
How are you?  
I\'m fine
```

1.2 Raw Strings

We can also have raw strings which should be used when we have text that includes many backslashes that we don't want to use for escape characters. There are similar to regular strings, but have "r" right at the beginning.

```
print(r"Hello")  
print(r"That is Carol\'s cat.")
```

```
Hello  
That is Carol\'s cat.
```

1.3 Multiline Strings with Triple Quotes

Instead of using `\n` in order to put a newline in the string, it can be easier to use multiline strings.

```
print("""Dear Alice,  
Eve's cat has been arrested for catnapping, cat burglarly, and extortion.  
Sincerly,  
Bob""")
```

```
Dear Alice,  
Eve's cat has been arrested for catnapping, cat burglarly, and extortion.  
Sincerly,  
Bob
```

Above, Python automatically formats this using `and` and `in` in the background.

1.4 Similarities Between Strings and Lists

Strings can use indices and slices similar to lists. The string “Hello” can be seen as a list with 5 items, each of which are individual strings.

```
spam="Hello world!"  
  
print(spam[0])  
print(spam[1:5])  
print(spam[-1])  
  
print("Hello" in spam)  
print("x" in spam)  
print("HELLO" in spam)
```

```
H  
ello  
!  
True  
False  
False
```