

IIT Madras

Team – 21

Instructor Resources Demo

Strings

Strings in python are surrounded by either single quotation marks, or double quotation marks.

'hello' is the same as "hello".

You can display a string literal with the print() function:

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```
print("Hello")  
print('Hello')
```

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Quotes Inside Quotes

You can use quotes inside a string, as long as they don't match the quotes surrounding the string:

Example

```
print("It's alright")  
print("He is called 'Johnny'")  
print('He is called "Johnny"')
```

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Assign String to a Variable

Assigning a string to a variable is done with the variable name followed by an equal sign and the string:

Example

```
a = "Hello"  
print(a)
```

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Multiline Strings

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

Example

You can use three double quotes:

```
a = """Lorem ipsum dolor sit amet,  
consectetur adipiscing elit,  
sed do eiusmod tempor incididunt  
ut labore et dolore magna aliqua."""  
print(a)
```

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Or three single quotes:

Example

```
a = '''Lorem ipsum dolor sit amet,  
consectetur adipiscing elit,  
sed do eiusmod tempor incididunt  
ut labore et dolore magna aliqua.'''  
print(a)
```

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Note: in the result, the line breaks are inserted at the same position as in the code.

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Strings are Arrays

Like many other popular programming languages, strings in Python are arrays of bytes representing unicode characters.

However, Python does not have a character data type, a single character is simply a string with a length of 1.

Square brackets can be used to access elements of the string.

Example

Get the character at position 1 (remember that the first character has the position 0):

```
a = "Hello, World!"  
print(a[1])
```

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Looping Through a String

Since strings are arrays, we can loop through the characters in a string, with a for loop.

Example

Loop through the letters in the word "banana":

```
for x in "banana":  
    print(x)
```

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Learn more about For Loops in our [Python For Loops](#) chapter.

String Length

To get the length of a string, use the len() function.

Example

The len() function returns the length of a string:

```
a = "Hello, World!"  
print(len(a))
```

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Check String

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

Example

Check if "free" is present in the following text:

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

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Use it in an if statement:

Example

Print only if "free" is present:

```
txt = "The best things in life are free!"  
if "free" in txt:  
    print("Yes, 'free' is present.")
```

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Learn more about If statements in our [Python If...Else](#) chapter.

Check if NOT

To check if a certain phrase or character is NOT present in a string, we can use the keyword `not` in.

Example

Check if "expensive" is NOT present in the following text:

```
txt = "The best things in life are free!"  
print("expensive" not in txt)
```

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Use it in an if statement: