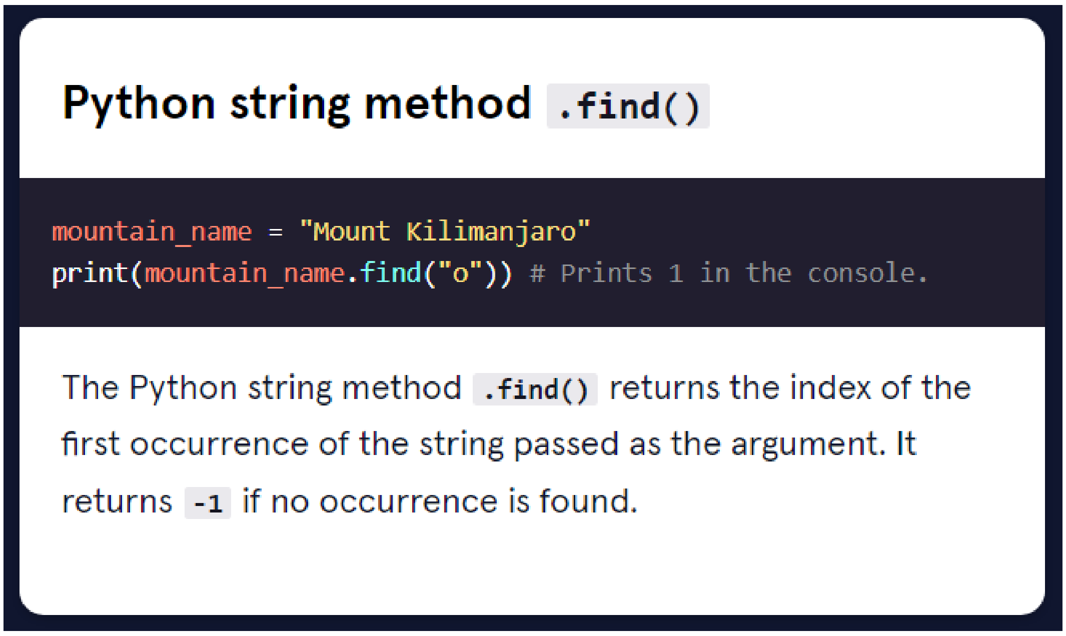
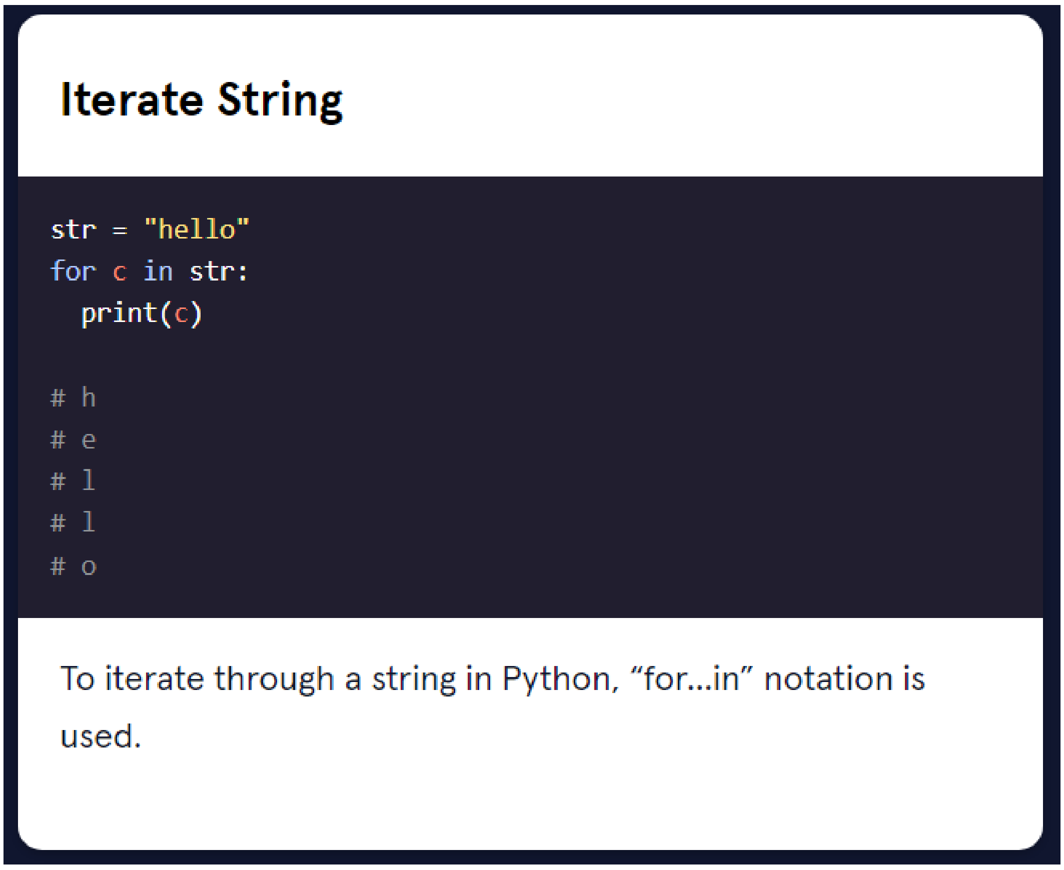
PRACTICE CONCEPTS



Python string method `.find()`

```
mountain_name = "Mount Kilimanjaro"
print(mountain_name.find("o")) # Prints 1 in the console.
```

The Python string method `.find()` returns the index of the first occurrence of the string passed as the argument. It returns `-1` if no occurrence is found.



Iterate String

```
str = "hello"
for c in str:
  print(c)

# h
# e
# l
# l
# o
```

To iterate through a string in Python, “for…in” notation is used.

String Method `.strip()`

```
text1 = '    apples and oranges    '
text1.strip()       # => 'apples and oranges'

text2 = '...+...lemons and limes...-...'

# Here we strip just the "." characters
text2.strip('.')    # => '+...lemons and limes...-'

# Here we strip both "." and "+" characters
text2.strip('.+')   # => 'lemons and limes...-'

# Here we strip ".", "+", and "-" characters
text2.strip('.+-')  # => 'lemons and limes'
```

The string method `.strip()` can be used to remove characters from the beginning and end of a string.

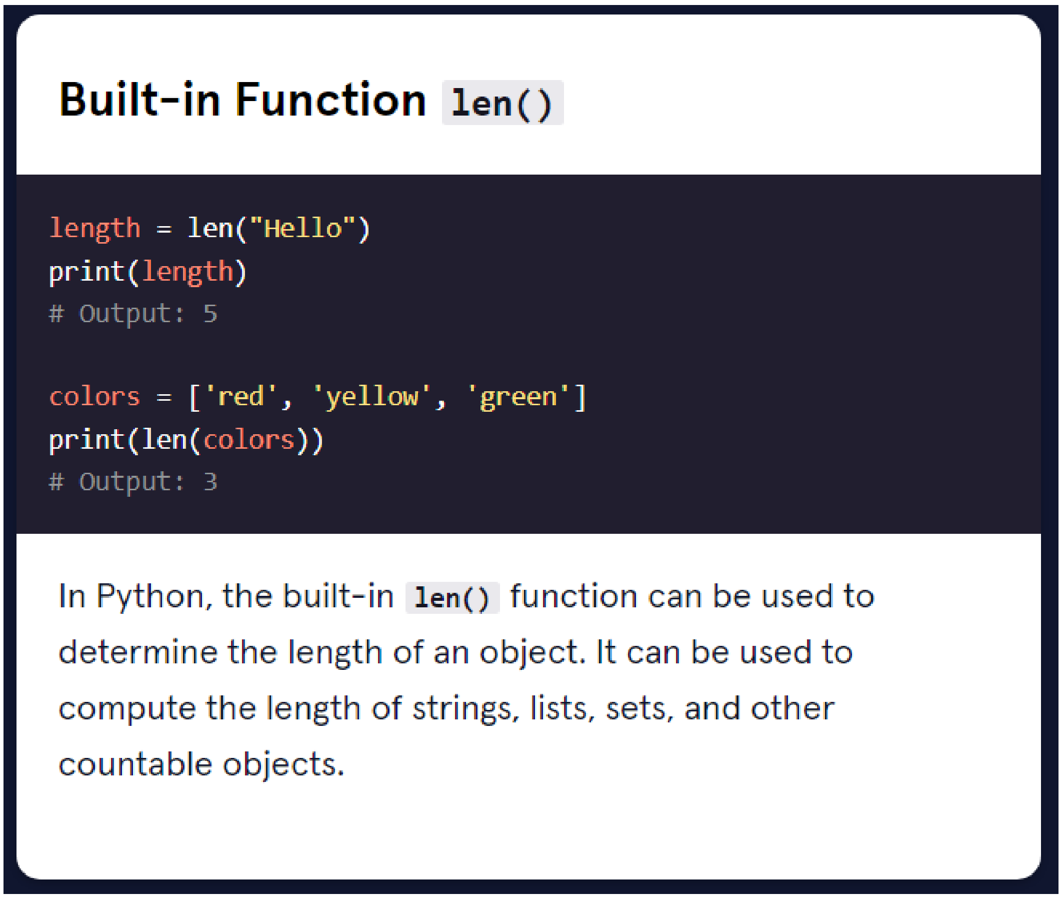
A string argument can be passed to the method, specifying the set of characters to be stripped. With no arguments to the method, whitespace is removed.

String Method `.lower()`

```
greeting = "Welcome To Chili's"

print(greeting.lower())
# Prints: welcome to chili's
```

The string method `.lower()` returns a string with all uppercase characters converted into lowercase.

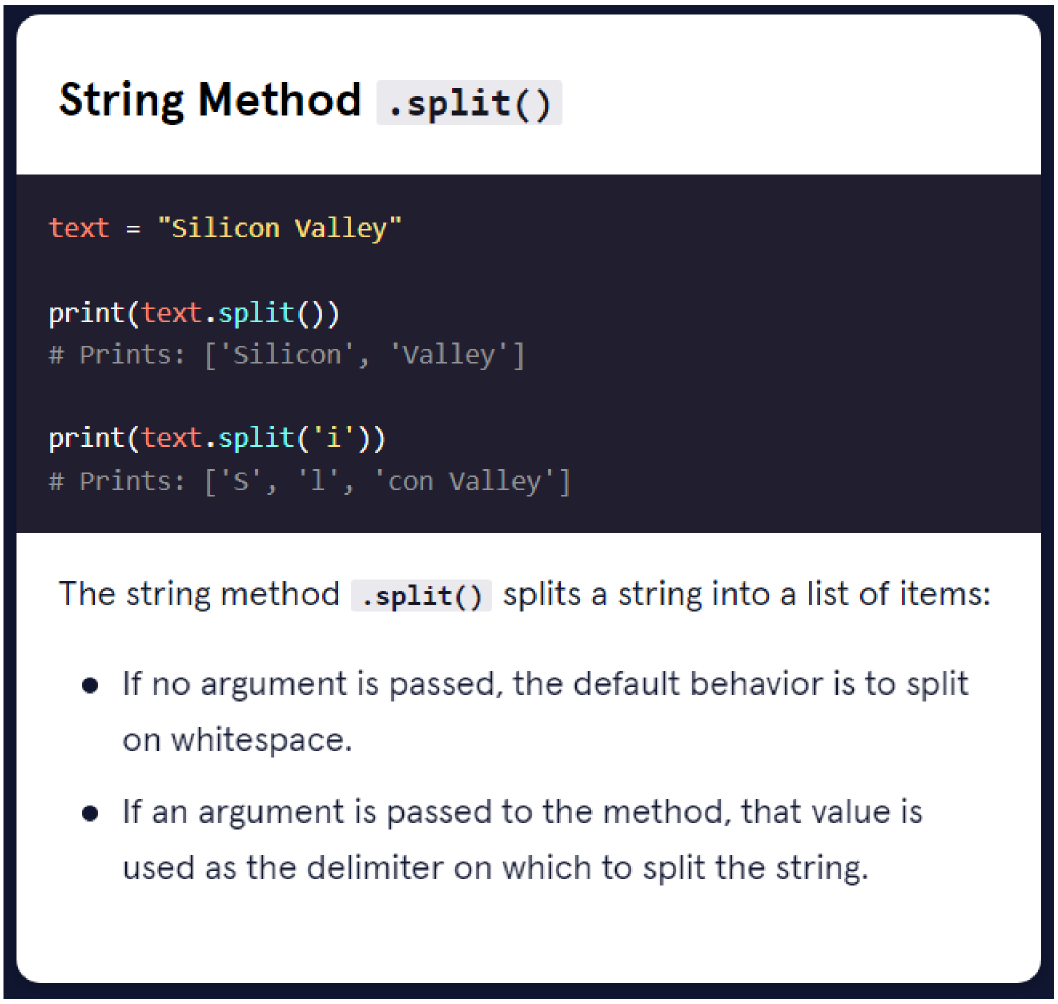


Built-in Function `len()`

```python
length = len("Hello")
print(length)
# Output: 5

colors = ['red', 'yellow', 'green']
print(len(colors))
# Output: 3
```

In Python, the built-in `len()` function can be used to determine the length of an object. It can be used to compute the length of strings, lists, sets, and other countable objects.



String Method `.split()`

```python
text = "Silicon Valley"

print(text.split())
# Prints: ['Silicon', 'Valley']

print(text.split('i'))
# Prints: ['S', 'l', 'con Valley']
```

The string method `.split()` splits a string into a list of items:

- If no argument is passed, the default behavior is to split on whitespace.
- If an argument is passed to the method, that value is used as the delimiter on which to split the string.

Immutable strings

Strings are immutable in Python. This means that once a string has been defined, it can't be changed.

There are no mutating methods for strings. This is unlike data types like lists, which can be modified once they are created.

Escaping Characters

```python
txt = "She said \"Never let go\"."
print(txt) # She said "Never let go".
```

Backslashes (`\`) are used to escape characters in a Python string.

For instance, to print a string with quotation marks, the given code snippet can be used.

String Method `.upper()`

```
dinosaur = "T-Rex"

print(dinosaur.upper())
# Prints: T-REX
```

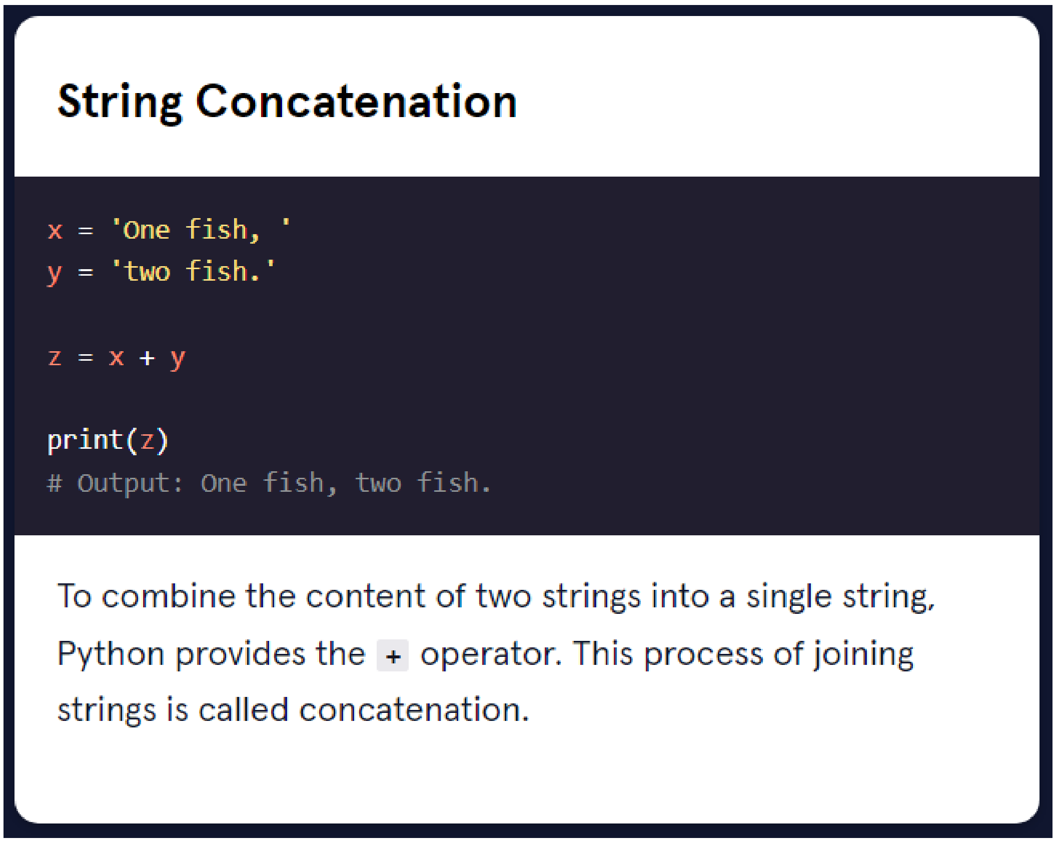
The string method `.upper()` returns the string with all lowercase characters converted to uppercase.

Indexing and Slicing Strings

```
str = 'yellow'
str[1]     # => 'e'
str[-1]    # => 'w'
str[4:6]   # => 'ow'
str[:4]    # => 'yell'
str[-3:]   # => 'low'
```

Python strings can be indexed using the same notation as lists, since strings are lists of characters. A single character can be accessed with bracket notation (`[index]`), or a substring can be accessed using slicing (`[start:end]`).

Indexing with negative numbers counts from the end of the string.



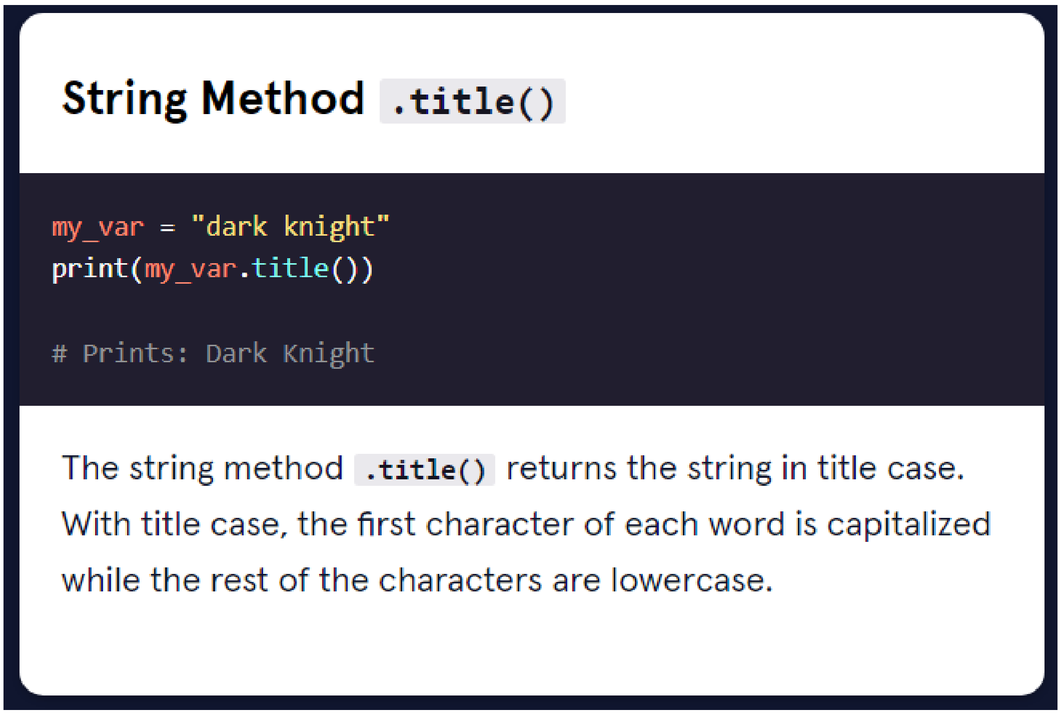
String Concatenation

```python
x = 'One fish, '
y = 'two fish.'

z = x + y

print(z)
# Output: One fish, two fish.
```

To combine the content of two strings into a single string, Python provides the `+` operator. This process of joining strings is called concatenation.



String Method `.title()`

```python
my_var = "dark knight"
print(my_var.title())

# Prints: Dark Knight
```

The string method `.title()` returns the string in title case. With title case, the first character of each word is capitalized while the rest of the characters are lowercase.

String Method `.join()`

```
x = "-".join(["Codecademy", "is", "awesome"])

print(x)
# Prints: Codecademy-is-awesome
```

The string method `.join()` concatenates a list of strings together to create a new string joined with the desired delimiter.

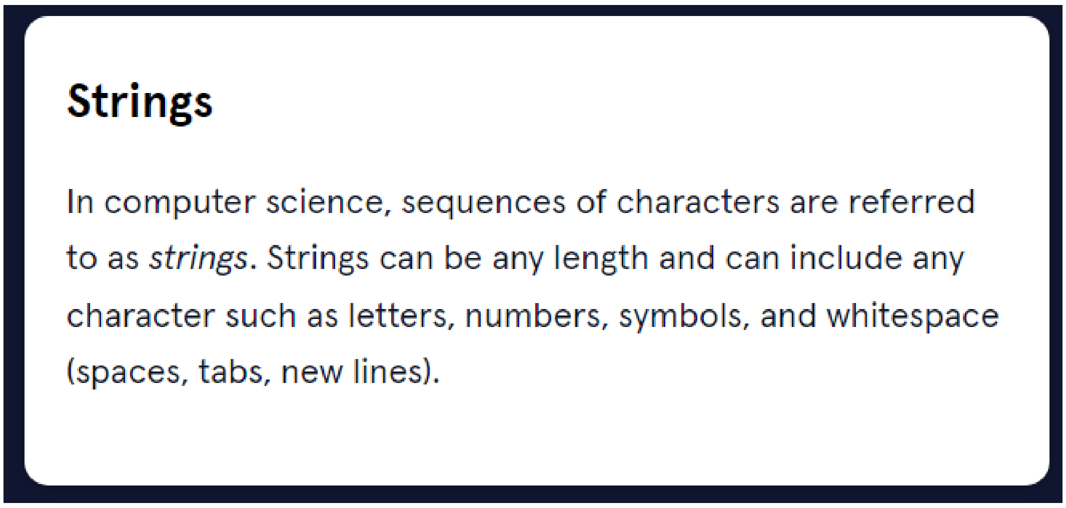
The `.join()` method is run on the delimiter and the array of strings to be concatenated together is passed in as an argument.

The `in` Syntax

```
game = "Popular Nintendo Game: Mario Kart"

print("l" in game) # Prints: True
print("x" in game) # Prints: False
```

The `in` syntax is used to determine if a letter or a substring exists in a string. It returns `True` if a match is found, otherwise `False` is returned.



Strings

In computer science, sequences of characters are referred to as *strings*. Strings can be any length and can include any character such as letters, numbers, symbols, and whitespace (spaces, tabs, new lines).