Python string methods

- Python has many very useful string methods
- You should always look for and use an existing string method before coding it again for yourself. Here are some

```
s.capitalize()
s.count()
s.endswith() / s.startswith()
s.find() / s.index()
s.format()
s.isalpha()/s.isdigit()/s.islower()/s.isspace()
s.join()
s.lower() / s.upper()
s.replace()
s.split()
s.strip()
```

The split method

- The string method split() lets us separate a string into useful parts
  - Common use: splitting a sentence into its words
- Splits by space characters by default, but you can give it a different 'separator' string

```
>>> s = "Captain, incoming transmission!"
    >>> print(s.split())
['Captain,', 'incoming', 'transmission!']

>>> s = "a one, a two, a one two three four"
>>> print(s.split(', '))
['a one', 'a two', 'a one two three four']
```

The strip method

- The string method strip() “cleans” the edges of a string by removing the character(s) you specify (default: spaces)

```
>>> s = "(hello!)"
>>> print(s.strip("()!"))
hello
```

- The `string` module contains a useful variable for this, called `punctuation` (like how the `math` module has `pi`)

```
>>> import string
    >>> string.punctuation
'!"#$%&\'()*+,-./:;<=>?@[\\]^_`{|}~'
```

Using split() and strip() together

- The split method is useful for extracting words, and the strip method is useful for cleaning them up
- Remember that strip() is a string method, **not** a list method

```
>>> import string
>>> words = ['How', ‘are,', ‘you;', 'sir?']
>>> print(s.strip(string.punctuation))
AttributeError: 'list' object has no attribute 'strip'
```

- So, how can we clean up every word in a sentence, once we've split it?

Using split() and strip() together

- The strip() method works on one “word” at a time
- So, take it one word at a time

```
>>> import string
   >>> words = ["It's", 'warm', 'today,', 'yeah?']
>>> for item in words:
          print(item.strip(string.punctuation))
It's
warm
today
yeah
```

Side question: why can't we just use the replace() method to get rid of punctuation like this?

Python string method documentation

- You can find the meaning of each of these string methods in the Python documentation
- Some operations on strings also work with other sequence types, both mutable and immutable. For example:

```
x in st
x not in st
st + t
st*n / n*st
len(st)
min(st)
max(st)
```