String Operations

Python has lots of string operations…

- You can find a bunch of these in Section 4.7.1. "String Methods" of the Python documentation (v. 3.4.3).

- These are in addition to the operations we studied that are common to lists *and* strings.
  - indexing, slicing
  - membership testing (in and not in) and concatenation (+).
  - index, count

String operations

- Here is a categorization (of *some* of these methods) that might help you navigate the long list of available string operations:

  - **Boolean methods**: isalpha, isalnum, isdigit, islower, isupper, isspace , startswith.
  - **Reformatting methods**: lower, upper, swapcase, capitalize, center, strip, lstrip, rstrip, ljust, rjust.
  - **Split methods**: split, lsplit, rsplit, splitlines.
  - **Join methods**: join.
  - **Replace methods**: replace

Examples: boolean methods

```
>>> "hello".isalpha()
True
>>> "hello".isalnum()
True
>>> "1234".isdigit()
True
>>> "39.78".isalnum()
False
>>> "hello?".islower()
True
>>> "Hello??".islower()
False
>>> "hello?".startswith("he")
True
>>> "hello?".startswith("He")
False
```

Examples: Reformatting methods

```
>>> "Hello, how are you?".lower()
'hello, how are you?'
>>> "Hello, how are you?".swapcase()
'hELLO, HOW ARE YOU?'
>>> "jack".capitalize()
'Jack'
>>> "  this string has spaces..   ".strip()
'this string has spaces..'
>>> "  this string has spaces..   ".lstrip()
'this string has spaces..   '
>>> "  this string has spaces..   ".rstrip()
'  this string has spaces..'
>>> "test".center(20)
'        test        '
>>> "hello??".rjust(20)
'             hello??'
```

Split and Join

```
>>> "hello, how are you?".split()
['hello,', 'how', 'are', 'you?']
>>> "Other, characters, can, be, used,,to,split?".split(",")
['Other', ' characters', ' can', ' be', ' used', '', 'to',
'split?']
>>> '''This string
... spans a
... few lines'''.splitlines()
['This string', 'spans a ', 'few lines']
>>> " ".join(["hello", "are","you","ok?"])
'hello are you ok?'
>>> "??".join(["hello", "are","you","ok?"])
'hello??are??you??ok?'
```

Replace

```
>>> "hello how are you?".replace(" ", "!")
'hello!how!are!you?'
>>> "hello, how are you?".replace("h","")
'ello, ow are you?'
```