String Operations

MARCH 13TH 2015
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

```python
>>> "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

```python
>>> "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??'
```
>>> "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?'
>>> "hello how are you?".replace(" ", "!")
'hello!how!are!you?'

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