Regular Expression Basics

March 15, 2012

What We've Learned

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Integers, Floats
Strings, Booleans

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Expressions,
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Function Definitions

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Function Definitions

Files

Review: Python Dictionaries

- REMEMBER: Keys Are Unique
- REMEMBER: Dictionaries are Unordered

Function/Syntax	Input	Output	Example
`keys()`	None	List of keys	`>>> freq.keys()` `['the', 'cat']`
`values()`	None	List of values	`>>> freq2.values()` `[3, 2]`
`<key> in <dict>`	None	Boolean	`>>> 'the' in freq2` `True`
`del(<dict>[<key>])`	Dict. Entry	None	`>>> del(freq2['cat'])`

Making Things **Interactive**

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    myInput = raw_input('write something… ')
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Do Task 2

Break: Project 1

Go to the Projects page on the class website

- Make sure that your website shows up properly.
- Look through a few other people's projects

On to Regular Expressions

Flexible ways to match strings in text

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Use special Characters! Remember what '\' means?

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Do Task 3

Test String for Regular Expressions

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Special Syntax	Meaning
[ ]	Match ANYTHING between brackets
\w	Match any letter
\s	Match any whitespace
\d	Match any digit
+	Match **one or more** of the previous things.

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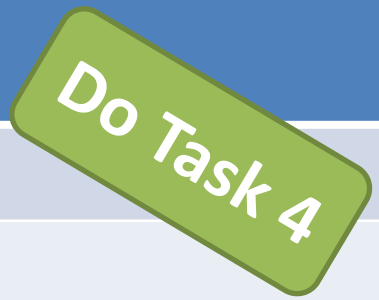

Regular Expressions

Just the beginning… see the 'PythonRE' link for lots more:

Pattern	Description
^	Matches beginning of line.
$	Matches end of line.
.	Matches any single character except newline. Using m option allows it to match newline as well.
[...]	Matches any single character in brackets.
[^...]	Matches any single character not in brackets
re*	Matches 0 or more occurrences of preceding expression.
re+	Matches 1 or more occurrence of preceding expression.
re?	Matches 0 or 1 occurrence of preceding expression.
re{ n}	Matches exactly n number of occurrences of preceding expression.
re{ n,}	Matches n or more occurrences of preceding expression.
re{ n, m}	Matches at least n and at most m occurrences of preceding expression.
a| b	Matches either a or b.
(re)	Groups regular expressions and remembers matched text.
…	…