**Intro to Python**

* No raw\_input for python 3, just “input”
* When using colon in index 🡪 up to but not including 🡪 (2:5) doesn’t include index 5

**Dictionaries**

* We can use get() and provide a default value of zero when the key is not yet in the dictionary - and then just add one

counts = dict()

names = ['csev', 'cwen', 'csev', 'zqian', 'cwen'] output:

for name in names : {'csev': 2, 'zqian': 1, 'cwen': 2}

counts[name] = counts.get(name, 0) + 1

print(counts)

**Regex**

* Before you can use regular expressions in your program, you must import the library using "import re"
* You can use re.search() to see if a string matches a regular expression, similar to using the find() method for strings
* You can use re.findall() extract portions of a string that match your regular expression similar to a combination of find() and slicing
* The re.search() returns a True/False depending on whether the string matches the regular expression
* If we actually want the matching strings to be extracted, we use re.findall()

**>>> import re**

**>>> x = 'My 2 favorite numbers are 19 and 42'**

**>>> y = re.findall('[0-9]+',x)**

**>>> print (y)**

**['2', '19', '42']**

* If you want a special regular expression character to just behave normally (most of the time) you prefix it with '\'

**>>> import re**

**>>> x = 'We just received $10.00 for cookies.'**

**>>> y = re.findall('\$[0-9.]+',x)**

**>>> print (y)**

**['$10.00']**