Outline for May 18, 2009

Reading: §11.6

1. Dictionary
    a. Collection of key-value pairs
    b. What a "mapping" is
    c. Mutable
2. Creating dictionaries
    a. Using d = {}
    b. Using d = dict()
3. Methods for dictionaries
    a. *D*.has_key(*k*): True if dictionary *D* has key *k*; else False
    b. *k* in *D*: same as *D*.has_key(*k*)
    c. *D*.keys(): list of keys in *D*
    d. *D*.values(): list of values in *D*
    e. *D*.items: list of tuples (*key*, *value*) in *D*
    f. *D*.get(*k*, *d*): if key *k* in *D*, return associated value; else return *d*
    g. del *D*[*k*]: delete (*k*, *v*) from *D*
    h. *D*.clear(): delete all entries in *D*
4. Sorting the dictionary
    a. keylist.sort() sorts based on keys
    b. keylist.sort(cmpfun) sorts based on cmpfun
        i. Arguments to cmpfun are two (key, value) pairs
        ii. Returns −1 if first > second; 0 if first = second; 1 if first < second
5. Example: word frequency count
    a. Sorted alphabetically (see wfc-1.py)
    b. Sorted by frequency (see wfc-2.py)
    c. Sorted by frequency first, the alphabetically (see wfc-3.py)