CS 209
Data Structures and Mathematical Foundations

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Today's Topics

- Questions/Comments?

- Continue Python review
  - split
  - Dictionaries

split and re.split

- split method in str
  - mystr = "Hello, World!\nWhat a nice day."
  - e.g.
  - listofstrs =mystr.split() # splits on whitespace
  - # and discards empty strings
  - list2 = mystr.split(",") # splits on comma
  - Return a list of strings
- import re
- re.split function
  - Takes in a pattern (regular expression) and a string to be split

dictionaries

- { } with key value pairs separated by , and each key separated by a : from its associated value

- [] vs. get
    - get is used to search if a key exists in dictionary – returns the value if found, returns None if not found
    - [] on a dictionary gets the value associated with the key inside the [], KeyError happens if not in dictionary
    - [] also can be used to add new key, value pairs or update a value for a key

- Looping through a dictionary e.g.:

```
for word in worddict:
    print(word, worddict[word])
```

Word frequency

- Let's write a program utilizing split and a dictionary to determine word frequency in a file.

Dictionary methods and sorted

- These can be called on a dictionary object to return a list of information:
  - items()
  - keys()
  - values()
- sorted(____) is a function that returns a sorted list of the parameter