



Collections

BBM 101 - Introduction to Programming I

Hacettepe University
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Fuat Akal, Aykut Erdem, Erkut Erdem

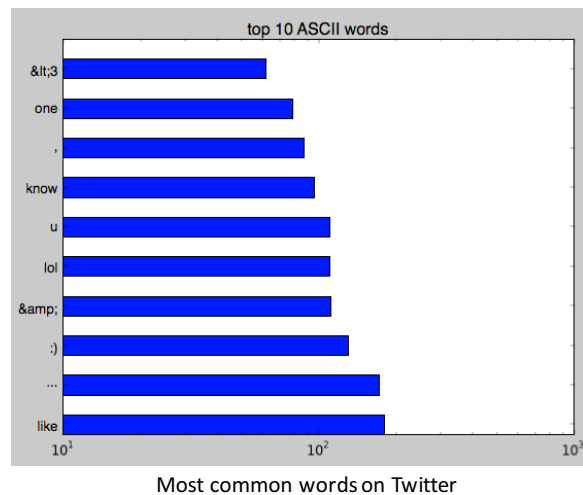
Slides based on material prepared by Ruth Anderson, Michael Ernst and Bill Howe in the course CSE 140
University of Washington

Count the Words in a Document

Assume you start with a list of words:

```
"to be or not to be that is the question  
whether tis nobler in the mind to suffer  
the slings and arrows of outrageous fortune  
or to take arms against a sea of troubles  
and by opposing end them to die to sleep  
no more".split()
```

Count the Occurrences of Each Word (Make a Histogram)



A Collection Groups Similar Things

- List: ordered
- Set: unordered, no duplicates
- Tuple: unmodifiable list
- Dictionary: maps from values to values
Example: word → definition



Data Structures

- A *data structure* is way of organizing data
 - Each data structure makes certain operations convenient or efficient
 - Each data structure makes certain operations inconvenient or inefficient
- Example: What operations are efficient with:
 - a file cabinet sorted by date?
 - a shoe box?

