CSS01: Data Analysis in Python

John Serences, jserences@ucsd.edu

January 8th, 2020

Class 01

Reminder:

- iClickers can be registered on Canvas, but we'll start using next week

- All in-class code and lecture slides can be found on GitHub

https://github.com/JohnSerences/CSS01_W2020

Key concepts for today

- Variable: symbolic name that refers to an **object** (or to a chunk of data)

  - Objects can be a letter string, number, list of letter strings or numbers, etc

  - Many specialized types of object for storing each type of information: **str , int, float, list**, dictionary, etc.

  - The data is contained within the object

  - A **variable** is a useful (i.e. readable/memorable) label for an object

Key concepts for today

- Different objects can be used for different purposes
    - If you want to store a name or a human-readable label for data, use a string

    - If you are dealing with numbers, use an int or a float

    - If you are dealing with a bunch of strings or numbers, use a list (array)

Key concepts for today

- Method: a function that is available for a given type of object (or available to the variable that refers to the object)

    - You can use methods to manipulate the data that are assigned to a variable

    - Example: if you have a list of words, the sort() method will re-arrange the list in alphabetical order

    - Object oriented programming!

Some shortcut keys for Google Colab

- On a PC cntrl = control key, on Mac cntrl = "apple" command key
  - New cell above: cntrl+M A
  - New cell below: : cntrl+M B
  - Convert to code cell: cntrl+M Y
  - Convert to text cell: cntrl+M M

- Run a cell (execute code or display markdown): cntrl+ENTER