

# CSS01: Data Analysis in Python

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Class 01

1

## 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](https://github.com/JohnSerences/CSS01_W2020)

2

## 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

3

### 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)

4

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### 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!

5

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### 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`

6

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