

## Topic Outline: Python Fundamentals 2

Revised: March 8, 2016

### Materials

- Today's handouts: this outline, book chapter, code practice, stickers
- All posted on *Topic outlines & links* page of website (except the stickers).

### Preliminaries

- Tools and buzzwords
  - Boolean variables, comparisons, conditionals (`if`, `else`), slicing, loops (`for`), function definitions.
- Rules to live by: don't panic, ask for help
- What is this?
  - `'abcd'`
  - `['Chase', 'Dave', 'Sarah', 'Spencer']`
  - `('Chase', 'Dave', 'Sarah', 'Spencer')`
  - `'98.76'`
  - `float('98.76')`
  - `int(float('98.76'))`
  - `len('98.76')`
  - `list('abcd')`
  - Tab completion
  - `object.method?`
  - Object inspector
- **Exercise**
  - Put red sticker on your laptop
  - Start Spyder
  - Open new file `bootcamp_class_pyfun2.py` in your `Data_Bootcamp` directory
  - Replace red sticker with green when you're set

## Python fundamentals 2

We'll follow the book chapter.

- Dictionaries
- Logical expressions (comparisons)
- Conditionals
- Slicing strings and lists
- Loops over lists and strings (`for`, `else`)
- Loops over counters (`range()`)
- Defining functions
- Style
- Review
  - Put red sticker on, replace with green when done

## Examples

If time permits, we'll go through some examples of economic and financial data and its properties. It's an IPython notebook that you can view on the GitHub repo: the `Code/IPython` directory, file `bootcamp_examples.ipynb`.

## After class

- Required
  - Code Practice #2 (should take about an hour)
- Recommended
  - **Write:** After class, write down everything you remember without using your notes
  - **Review:** Reread the chapter and fill in anything you missed.
  - Ask for help if you get stuck.