

Topic Outline: Review & Applications

Revised: March 22, 2016

Materials

- Today's handouts: this outline, stickers (as needed)
- Posted on *Topic outlines & links* page of website (except the stickers)

Preliminaries

- Next week's exam
 - Covers: Python fundamentals 1/2, data input with Pandas, graphics with Matplotlib
 - Like a driving test: just the essentials
 - Format: an IPython notebook like the one we use below. Add answers, email it back to us.
 - Rules: open book and open internet (wireless permitting), but we recommend a one-page "cheat sheet"
- **Exercise (review setup)**
 - Put red sticker on your laptop
 - Download IPython notebook
https://github.com/DaveBackus/Data_Bootcamp/blob/master/Code/IPython/bootcamp_exam_practice.ipynb
and save Raw file in your `Data_Bootcamp` directory
In short: GitHub \Rightarrow Code \Rightarrow IPython \Rightarrow `bootcamp_exam_practice.ipynb \Rightarrow Raw`
 - **We're going to start Jupyter without using Launcher**
 - Go to the command line
 - * Windows: push the Windows key and enter "command prompt".
 - * Macs: click the magnifying glass in the top right and enter "terminal".
 - Type: `jupyter notebook` [enter]
 - If this starts Jupyter, you're all set. **If not, let us know.**
 - Replace red sticker with green when you're set

Exam practice

Work your way through the practice exam. Raise your hand when you get stuck.

- IPython basics
- Python fundamentals
- Data input with Pandas
- Graphics with Matplotlib

Applications

Setup

- Put red sticker on your laptop
- Download IPython notebook
https://github.com/DaveBackus/Data_Bootcamp/blob/master/Code/IPython/bootcamp_examples.ipynb
and save Raw file in your `Data_Bootcamp` directory
- Start Jupyter and open notebook
- Replace red sticker with green when you're set

The idea is to resume thinking about data. We follow the notebook, but can take these examples in any direction you find interesting.

- Current economic conditions
- Option prices
- Employment trends
- Government debt
- Aging populations
- Declining birth rates
- Government bond yields

More examples coming.

After class

- Required
 - Nothing
- Recommended
 - Review book chapters
 - Review code practice
 - Prepare your cheat sheet