Data Analysis Using Python

Fall 2016

Agenda

- Syllabus
- Assignments and Project Work
- Installing required tools
- Introduction to Python

Assignments & Project

- Material Link :
- Weekly assignments
- Peer Grading
- Github
- Individual Project

Tools

- Git
- iterm (optional)
- ZSH (optional)
- conda / pip
- Packages - IPython, jupyter, numPy, Pandas, matPlotLib, seaborn

Mac Users

- iterm - https://www.iterm2.com/downloads.html
- Homebrew - http://brew.sh/
- Git - ***brew install git***
- zsh - https://github.com/robbyrussell/oh-my-zsh
- Anaconda - https://docs.continuum.io/anaconda/install#anaconda-for-os-x-command-line-install
- Packages - **$ conda install *package***
- Jupyter - http://jupyter.readthedocs.io/en/latest/install.html

Windows Users

- (Optional) bash - http://www.howtogeek.com/249966/how-to-install-and-use-the-linux-bash-shell-on-windows-10/

- http://www.howtogeek.com/258518/how-to-use-zsh-or-another-shell-in-windows-10/

- Python 3.5 - https://www.python.org/downloads/release/python-351/

- Anaconda - https://docs.continuum.io/anaconda/install#anaconda-for-windows-install

Github

- Create a repository - Python4DataAnalysis
- Add **brahmbhattspandan** as collaborator
- For every assignment, create a notebook and upload it.
- Commands -
    - git add —all
    - git commit -m ‘message’
    - git push
    - git pull
    - git clone

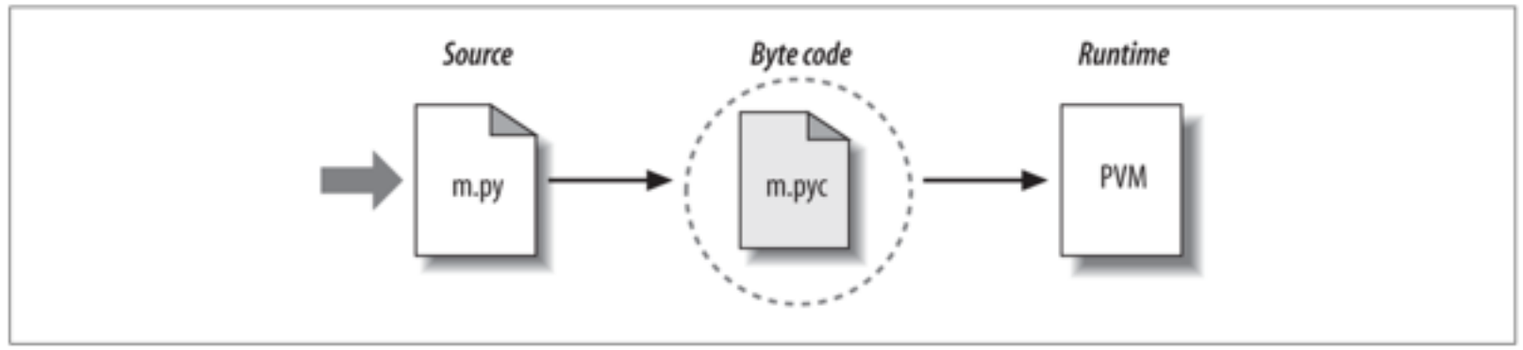
Introduction

- Why Python ?
  - Software Quality
  - Developer Productivity
  - Program Portability
  - Support Library
  - Component Integration

- Who uses Python ?
  - Google in its search engine
  - Youtube
  - Dropbox
  - Bittorrent
  - Maya

- Use of Python
    - System Programming
    - GUI’s
    - Internet Scripting
    - Database programming
    - Numeric and scientific programming

Hello World



- print(
- print(2*4)
- Save as .py file -> *myfile.py*
- $ python myfile.py