Data Analysis Using Python

Spring 2017

Agenda

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

Assignments & Projects

- Material uploaded before start of lecture.
- All material to be available via Github
- Assignments Weekly / Bi-Weekly
- Submission via Github.
- Individual Projects

Tools

- Git For accessing material and assignments.
- conda To install python packages
- Python Packages
 - IPython Interactive Shell
 - · Jupyter GUI based notebook
 - Numpy ndArray
 - · Pandas DataFrames
 - Matplotlib Plotting Library
 - · seaborn Statistical Plotting Library

Installation (MacOS)

- 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 (Install Python 3.5 only, Graphical Installer)
- Packages \$ conda install pkg_name

Installation (Windows)

- Git: https://git-scm.com/download/win
- Anaconda: https://docs.continuum.io/anaconda/ install (Python 3.5 Graphical Installer)
- Packages \$ conda install pkg_name

Github

- Create a Repository Iname_fname_spring2017
- Add **brahmbhattspandan** as collaborator
- Git Tutorial : Git Real Slides
- Git 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
 - Al and NLP

Introduction

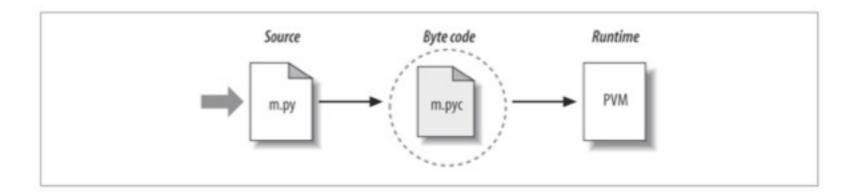
- Who uses Python?
 - Google
 - Youtube
 - Dropbox
 - Bittorrent
 - Maya

Introduction

- Use of Python
 - System Programming
 - GUI development
 - Internet Scripting
 - DB Programming
 - Numeric & Scientific Computing
 - A

Hello World

- print("Hello World.")
- print(2*5)
- Save as .py file:
 - vi myfile.py



python my file.py