

Data Visualization

Descriptive Information

Prerequisites/Assumptions. The material in this lecture assumes basic knowledge of Python and Pandas data structures, Series and DataFrames.

Duration. This module is designed to be covered in two lectures and is complemented by Lab assignment aimed at reinforcing students' knowledge on Data Visualization.

Tips for teaching. The materials is intended to be presented in a mixed format of introducing the corresponding concepts by the instructor along with dynamically demonstrating example codes using Jupyter notebook followed by hands-on work where students perform the illustrated data visualization methods by themselves. The lecture material and exercises are accompanied by notebooks as html files (see the attached Vizualization-1.html and Vizualization-2.html) capturing all dynamically demonstrated examples.

Additional Reading

1. Rossant C. Learning IPython for Interactive Computing and Data Visualization. Packt Publishing, 2015.
2. Rossant C. IPython Interactive Computing and Visualization Cookbook. Packt Publishing, 2014.
3. Visualization <http://pandas.pydata.org/pandas-docs/version/0.18.1/visualization.html>.
4. Matplotlib Tutorial: Python Plotting. <https://www.datacamp.com/community/tutorials/matplotlib-tutorial-python#gs.LbJzHxA>
5. Pyplot tutorial http://matplotlib.org/users/pyplot_tutorial.html
6. Modern Pandas (Part 6): Visualization: <http://tomaugspurger.github.io/modern-6-visualization.html>.
7. 9 popular ways to perform Data Visualization in Python:
<https://www.analyticsvidhya.com/blog/2015/05/data-visualization-python/>