

STUDY GUIDE

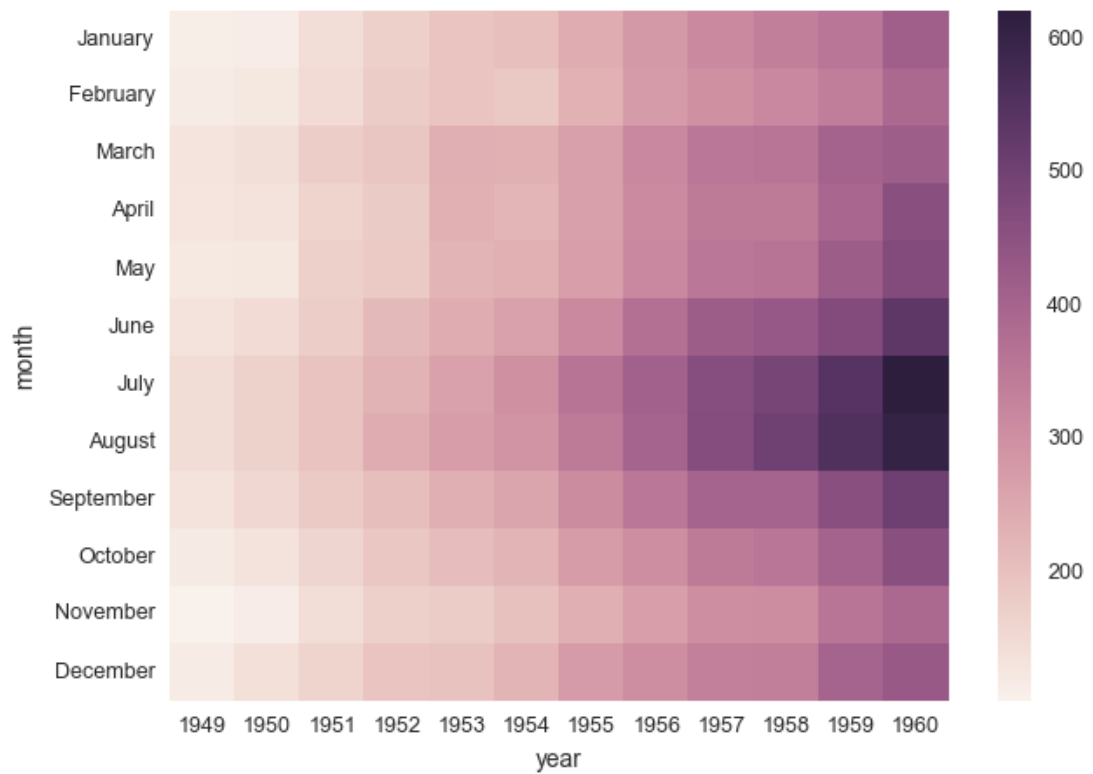
PLOTTING DATA WITH MATPLOTLIB AND SEABORN

Key Terms and Definitions

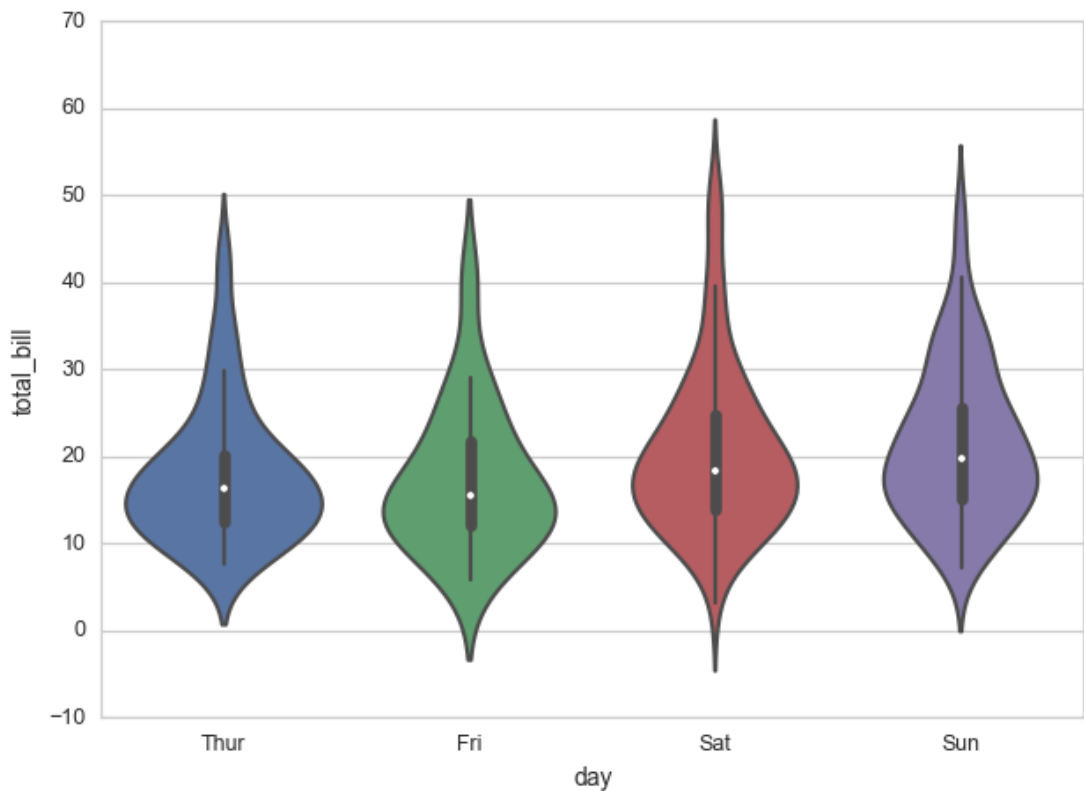
- » **Matplotlib:** The core visualization library in Python.
- » **Figures:** Objects that store all figure-level attributes and allow the plot to output as an image. Every axes object has a parent figure object.
- » **Axes:** Objects that have plotting methods and define the coordinate system among other attributes.
- » **Seaborn:** A plotting library created on top of Matplotlib that is intended to make complex visualizations more immediately appealing. Seaborn is not a library for plotting basic chart types. It is used to create statistically based chart types and quickly define chart styles.

Seaborn Chart Types:

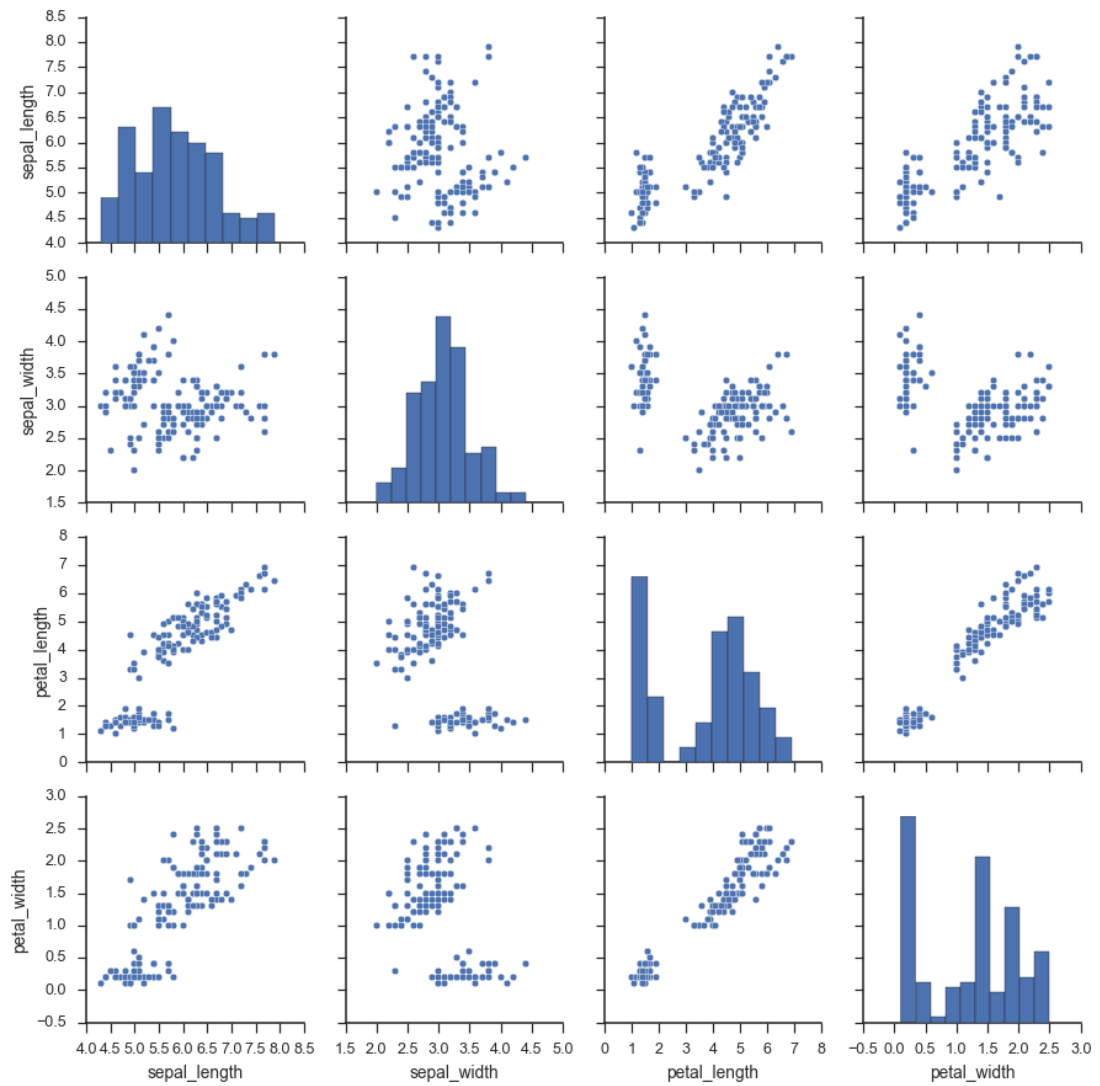
- » **Heat Map:** Compares the strength and direction of each attribute of a data set against every other one.



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- » **Violin Plot:** Shows the distribution of multiple attributes of a data set, along with some key summary statistics.

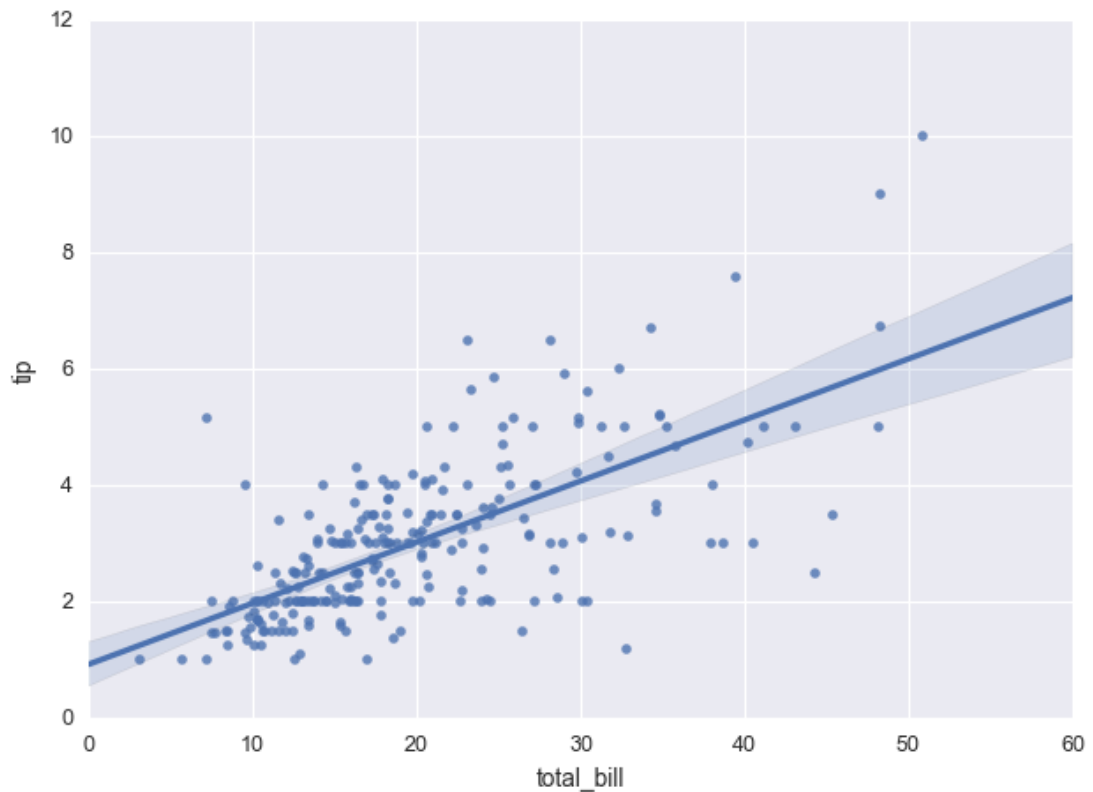


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- » **Pair Plot:** A series of scatterplots plotting each variable against every other variable and including histograms for each variable when compared to itself.



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- » **Regression Plot (regplot):** A scatterplot that includes a linear regression with a shaded area to show confidence intervals.



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Guiding Questions

1. What are some changes you might want to make to a Matplotlib *figure*? To an *axis*?
2. What additional information do you get from the Seaborn plots as opposed to the simpler Matplotlib plots?
3. When would you want to use Matplotlib or Seaborn to plot data rather than Pandas?

Additional Resources

1. [Seaborn Documentation](#)
2. [Matplotlib Documentation](#)
3. [GA Plotting Demo Video](#)
4. [GA Plotting Demo Video 2](#)
5. [DataCamp: Intro to Data Visualization With Python](#)

Technical Resources

1. [Install Anaconda](#) and [Verify Installation](#)
2. [Jupyter Notebook Practice](#)