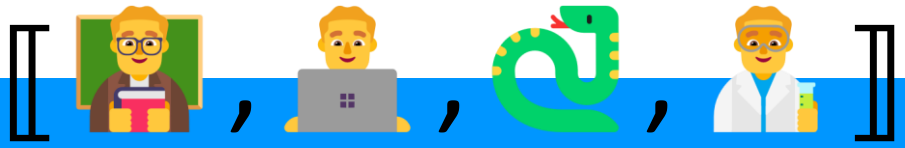
Lecture Notes for

Machine Learning in Python

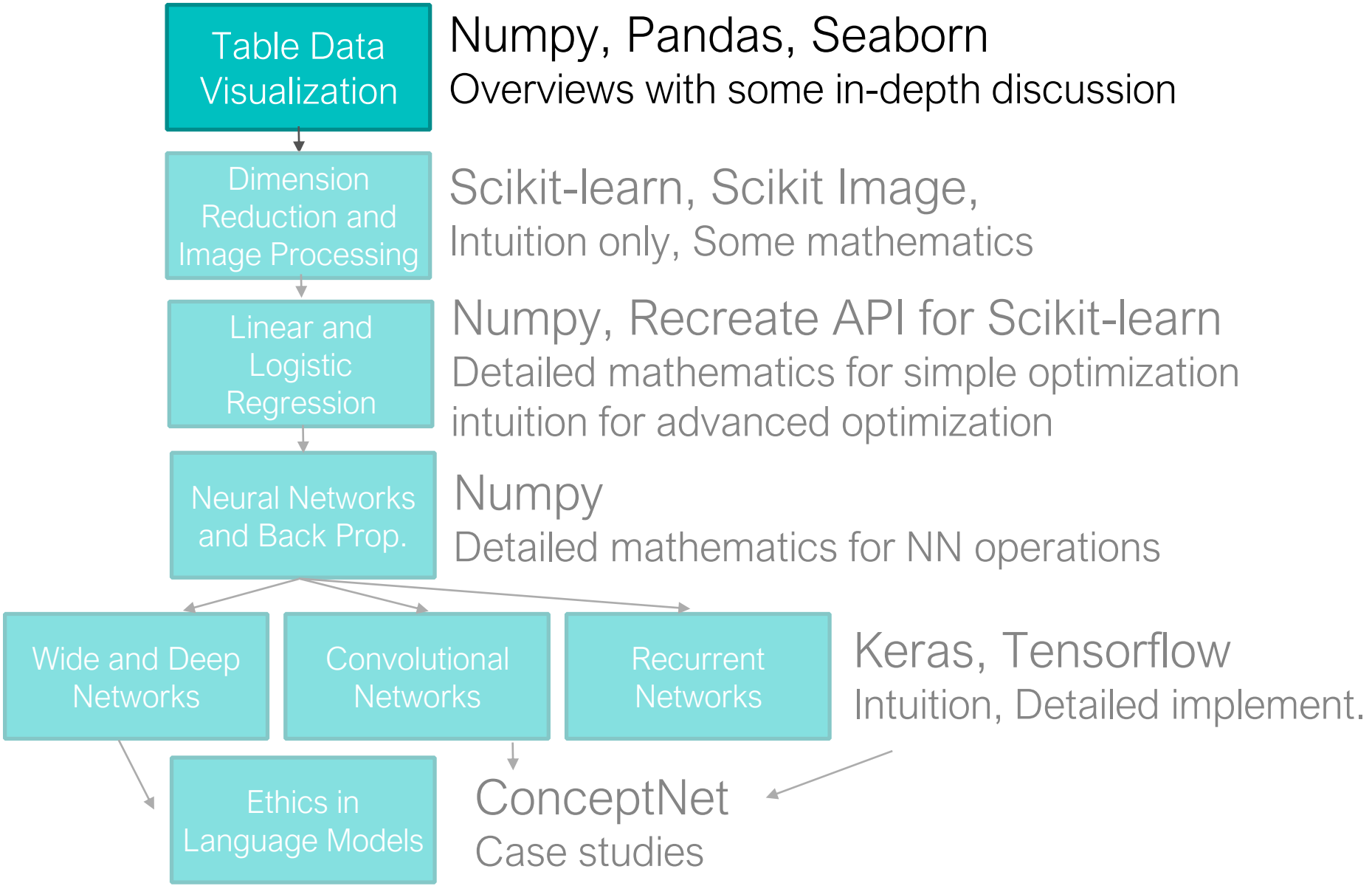


Visualization

Class Logistics and Agenda

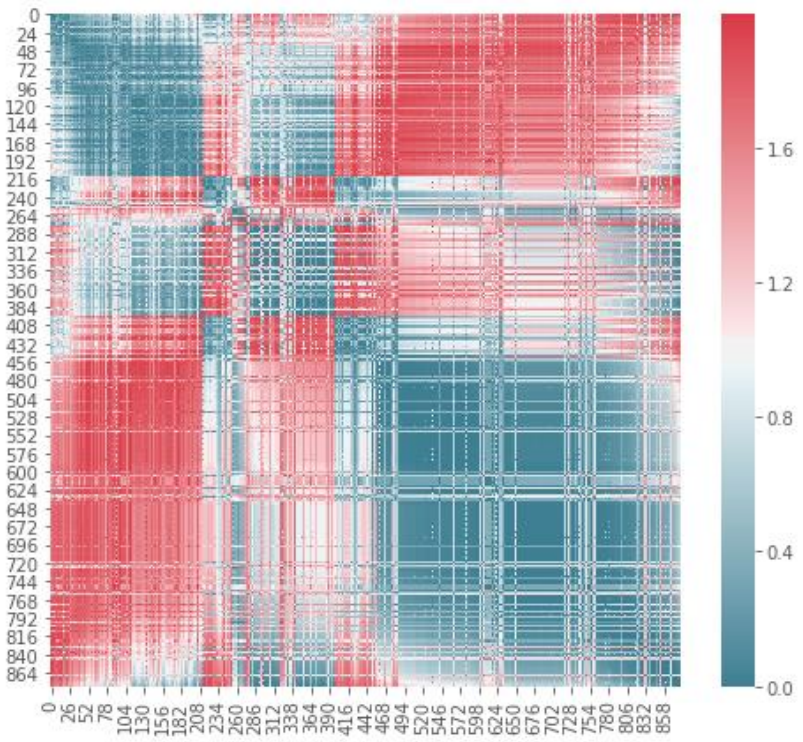
- Logistics:
  - Office Hours Zoom
- Agenda:
  - Finish Visualization Demo
  - Town Hall Lab One
- Next Time:
  - Dimensionality Reduction
    - PCA
    - Sampling
  - Images

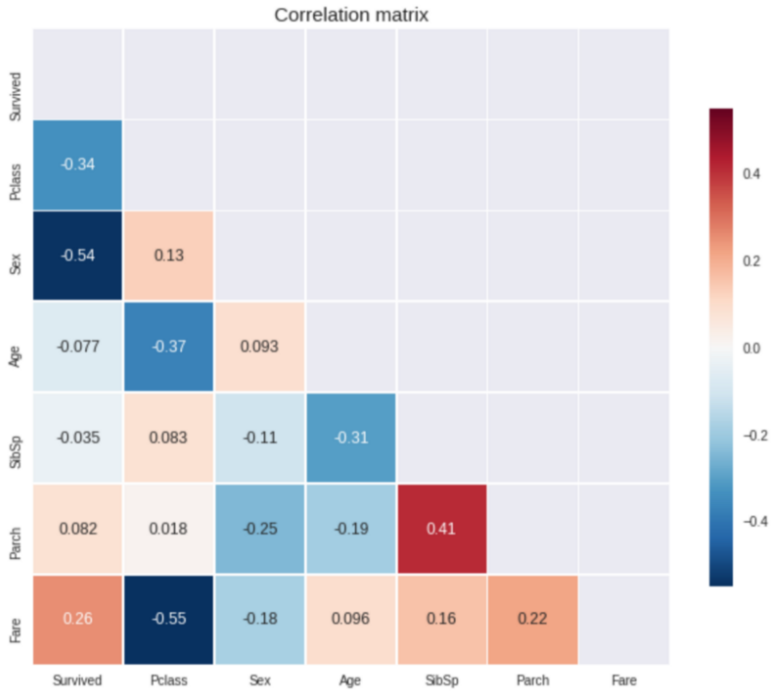
Class Overview, by topic



What is the difference in these plots?

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Embarked	2	3	male	Q	S
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	S	0	1	1	0	1
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C	0	0	0	0	0
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	S	0	1	0	0	1





Let's look at some graphs

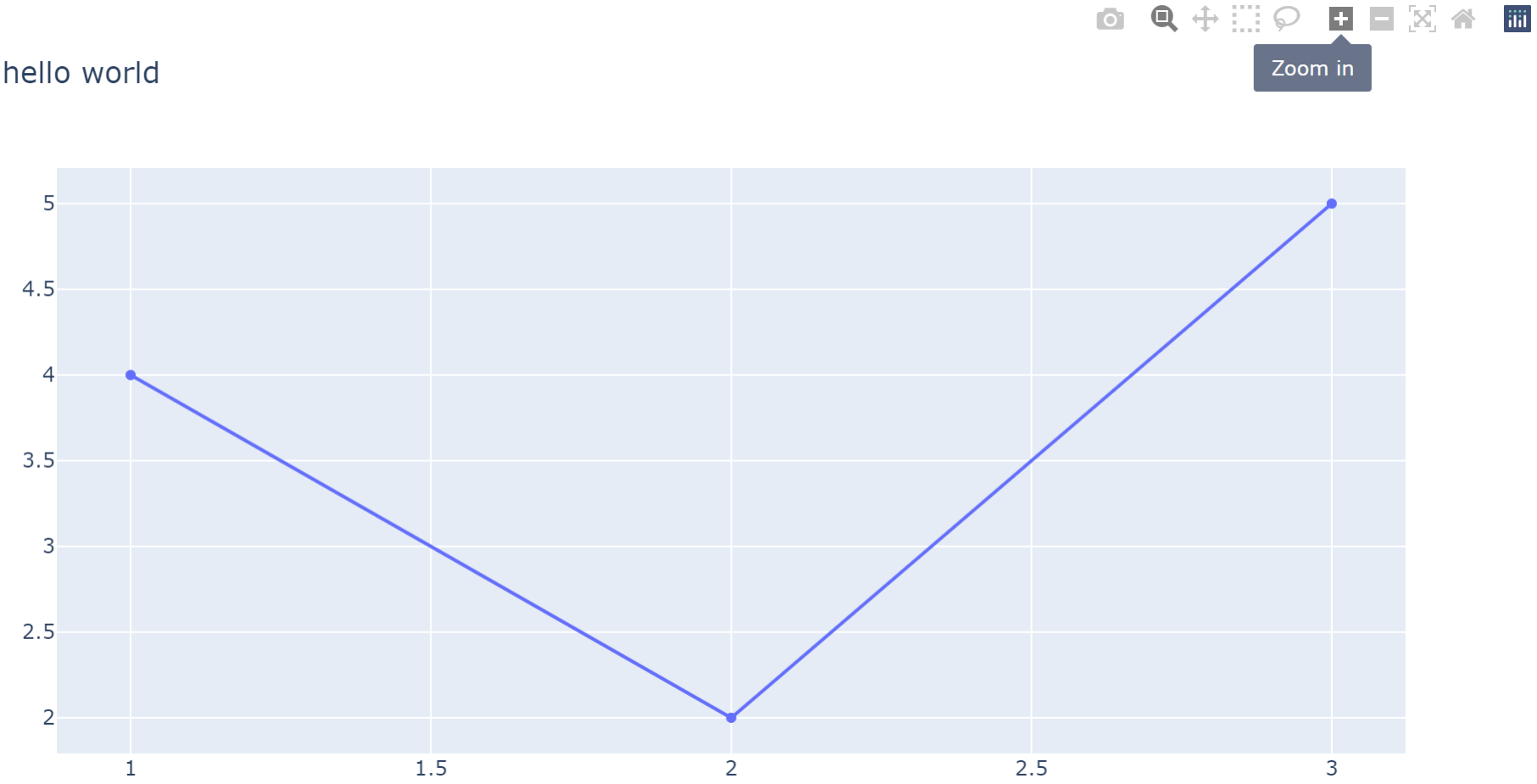
Demo

- You tell me what conclusions we are getting from these graphs
  - Histogram
  - KDE
  - HeatMaps and Correlation
  - Scatter and Scatter Matrix
  - Box / Violin / Swarm

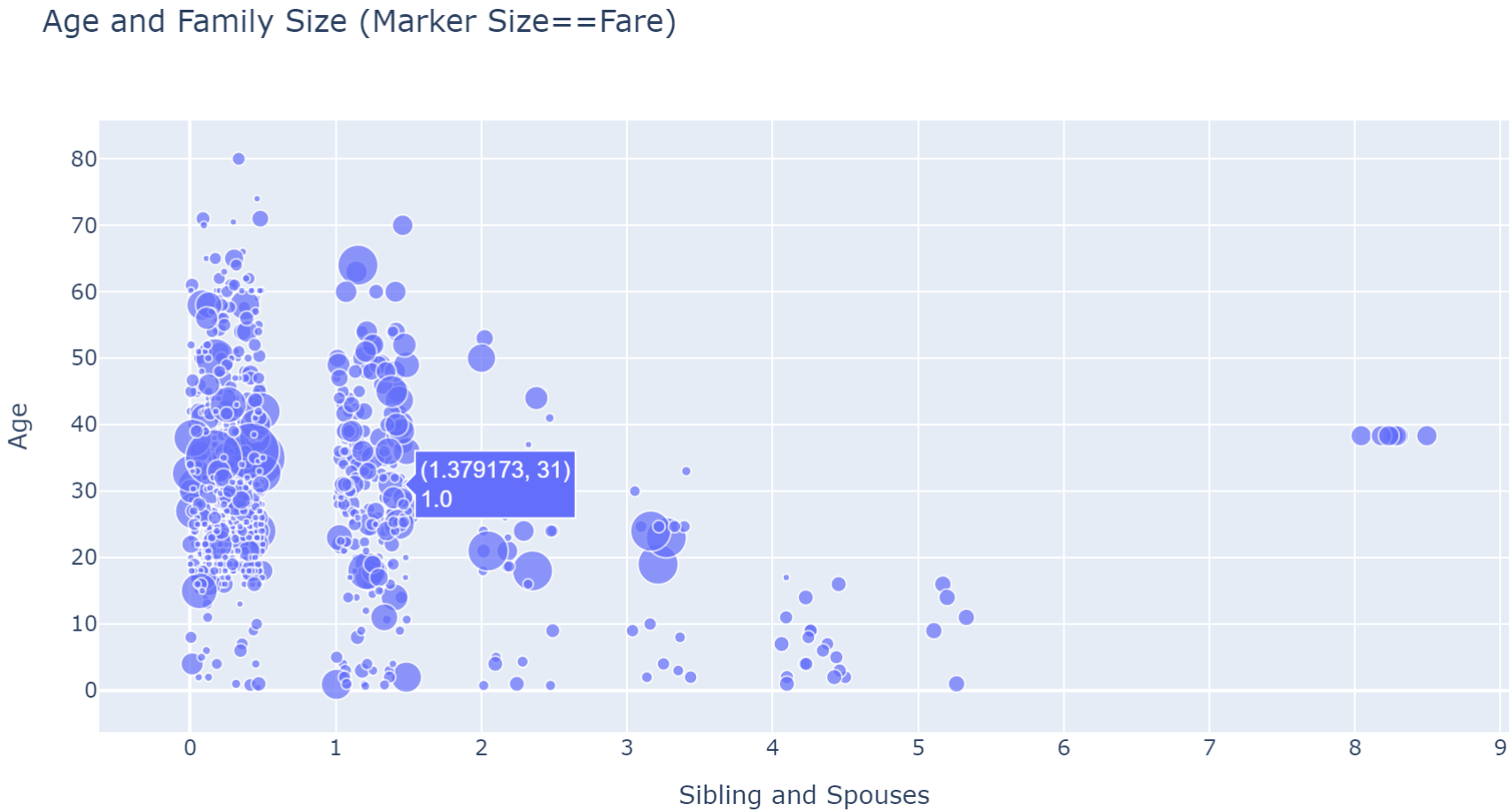
03.Data Visualization.ipynb

Matplotlib
Seaborn
Plotly

Interactive Plot

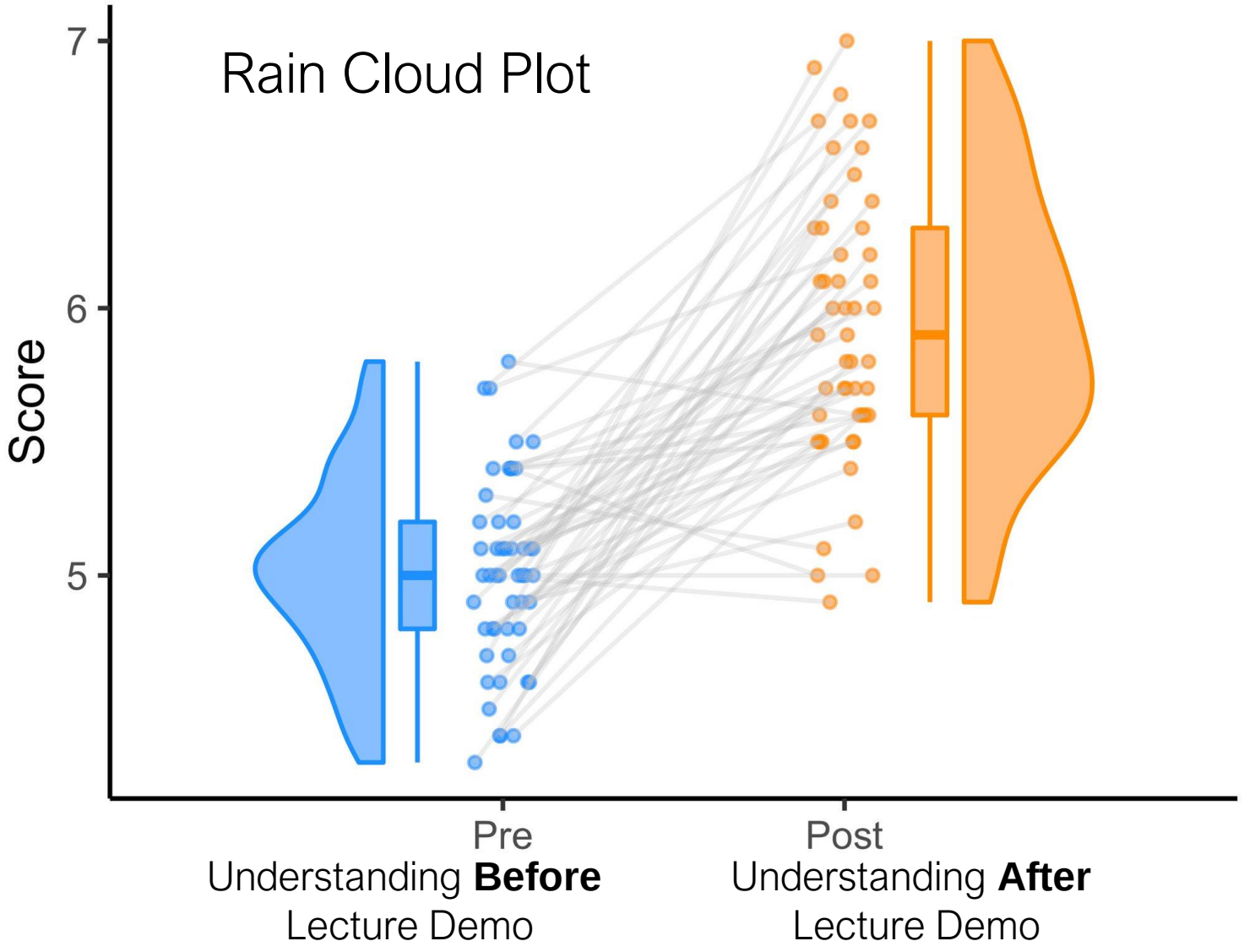


Interactive Plot



Interactive Plot

Now you have visualization building blocks



Lab One: Town Hall