CSC/SDS 109: Communicating with Data

Fall 2024

HW 01: First Visualizations

This is an individual or pair assignment-- you pick!

Goals:

- Work with real data
- Use Tableau to visualize data

Instructions

Step 1: Obtain Data

- Download dataset from awesome-public-datasets, Tableau Public, Kaggle, or any other source.
- Load the dataset into Tableau and explore the dimensions. For example, if you download the Auto dataset, which contains information on various types of cars, you'll see something like this:

# Auto.csv Mpg	# Auto.csv Cylinders	# Auto.csv Displacement	# Auto.csv Horsepower	# Auto.csv Weight	# Auto.csv Acceleration	# Auto.csv Year	# Auto.csv Origin	Abc Auto.csv Name
18.0000	8	307.000	130	3,504	12.0000	70	1	chevrolet chevelle malibu
15.0000	8	350.000	165	3,693	11.5000	70	1	buick skylark 320
18.0000	8	318.000	150	3,436	11.0000	70	1	plymouth satellite
16.0000	8	304.000	150	3,433	12.0000	70	1	amc rebel sst
17.0000	8	302.000	140	3,449	10.5000	70	1	ford torino
15.0000	8	429.000	198	4,341	10.0000	70	1	ford galaxie 500
14.0000	8	454.000	220	4,354	9.0000	70	1	chevrolet impala
14.0000	8	440.000	215	4,312	8.5000	70	1	plymouth fury iii
14.0000	8	455.000	225	4,425	10.0000	70	1	pontiac catalina
15.0000	8	390.000	190	3,850	8.5000	70	1	amc ambassador dpl
15.0000	8	383.000	170	3,563	10.0000	70	1	dodge challenger se
14.0000	8	340.000	160	3,609	8.0000	70	1	plymouth 'cuda 340

Step 2: Deliverable

- Create THREE different visualizations that highlight something interesting in your data.
- Create a document that contains:
    - A link to your dataset.
    - An overview of your dataset :
        - Where does it come from?
        - Who collected the data and why?
        - Is there any important context to consider?
        - Do you anticipate any ethical issues or biases in the data?
    - Each visualization paired with a description of the interesting thing the visualization shows.

Submission

Submit your deliverable(s) as a PDF on Gradescope. If you worked with a partner, submit as a group (https://guides.gradescope.com/hc/en-us/articles/21863861823373-Adding-Group-Members-to-a-Submission).

Rubric

The following matches the rubric you will see on Gradescope.

Points	Criteria
1	Submission is well-formatted and easy to read.
1	Submission includes a link to the original dataset.
4	Submission includes an overview of the dataset (1pt per bullet point above)
3	Submission contains THREE different visualizations (1pt per visualization)
3	Submission contains a brief, readable, and accurate description of each visualization (1pt per visualization)
3	Each visualization uses an appropriate visual mapping as discussed in lecture. Eg. If a bar chart is present, is it being used to compare related quantities? (1pt per visualization)
TOTAL 15	