Peer-graded Assignment: Exercise on Graph Design

Submit by October 21, 11:59 PM PDT

Important Information
It is especially important to submit this assignment before the deadline, October 21, 11:59 PM PDT, because it must be graded by others. If you submit late, there may not be enough classmates around to review your work. This makes it difficult - and in some cases, impossible - to produce a grade. Submit on time to avoid these risks.

Instructions

My submission

Discussions

Goals

The main goal of this assignment is to test your ability to design an appropriate chart for a given data set and stated goal.

Assignment

You will be assigned a data set and asked to produce graphs that answer a specific set of questions. You will have to produce the graphs using Tableau Public. Tableau Public is a free version of Tableau you can use for this exercise. You can download it from here: https://public.tableau.com/.

Pre-requisite

In order to solve this exercise you have to watch the Tableau tutorial assigned this week.

Review criteria less

The assignment will be graded according to two main parameters:

1. *Correctness.* Does the graph answer the question assigned?
2. *Effectiveness.* Does the graph communicate the information effectively? Is there a better representation/solution that could be used?

Step-By-Step Assignment Instructions less

Assignment Topic:

You have to create graphs using the New York City (NYC) restaurant inspection data set. This data set contains information about how restaurants in NYC are graded and what the outcome of the inspection is.

The questions you have to answer are the following:

- **Question 1:** How does the number of inspections change over time (use month as the level of temporal granularity)? Does the number of inspections increase or decreate over time? Are there any peak times? Is there any seasonal effect (like inspections being more common during cretain seasons or months)?
- **Question 2:** Is there any difference in how the number of inspections changes over time in the 5 different boroughs of New York City?
- **Question 3:** How are cuisines types distributed across the New York area? Are there geographical areas where certain cuisines tend to concentrate (that is are there any areas where certain cuisines are more prevalent than others)? NOTE: focus only on the top 5 most frequent “Cuisine Description” categories.
- **Question 4:** How does the average score compare across different cuisine types? Are there cuisines that tend to have consistently lower/higher average scores compared to the others? NOTE: focus only on the top 5 most frequent “Cuisine Description” categories.
- **Question 5:** Is there a relationship between cuisine type and violation? For instance, do some cuisine types tend to have more of some type of violations that other cuisine types?

Setup instructions:

Before you begin, you need to:

- Install Tableau Public (this is a free version of Tableau)
- Download the NYC Restaurant inspection data set
- Load the data set in Tableau

How to submit:

Submit a slide deck (in PDF) organized as follows.

Create 3 slides for each question:

- Slide 1: the question
- Slide 2: the graph (take a screenshot from Tableau)
- Slide 3: your comments explaining why you think this is the right graph. If you tried different solutions explain what else you tried and why you chose this one as the final solution (feel free to add more images to show what solutions you discarded if you want).

Add as many slides as needed to answer the whole set of questions.

Note: you can use PowerPoint, Google Slides or any other presentation program but please convert them in PDF before submitting.

Guidelines for the assignment:

Once you open the file in Tableau try to explore different solutions for the same problem. It is good practice in visualization to try many things before deciding on a final solution.

It is very useful for you to keep in mind how the graph will be evaluated.

Ask yourself the two primary questions:

- Does this graph actually answer the question assigned?
- Is this graph an effective representation of the information I want to convey?

IMPORTANT: How to filter unwanted information in Tableau less

For some of the questions you will need to filter out undesired or useless information in Tableau.

If you need to focus on only the top 5 most frequent cuisine descriptions you need to use the filtering function. To do that, drag the field "Cuisine Description" in the filters pane and set the values as shown in the figure on the left below.

Similarly if you need to remove some of the "spurious" grades in the Grade field, use the filtering mechanism as shown on the right hand side of the image below.