Name(s): _____

DATA 101 Assignment 3: Visualization

Work in teams of 2

Instructions. Answer the following questions using the linked datasets and activities. Always note the source of your information when applicable. Write your responses in the spaces provided.

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1. Go to https://ernbilen.github.io/moviesd3. Find the information below.

(a) What is the type of the graph you see on this Movie Data explorer?

(b) What is the relationship between `Tomatometer` (Rotten Tomatoes) and `imdbRating`?

(c) According to the graph, does a higher score for `Meter` cause `imdbRating` to go up? Explain.

(d) Does the relationship you see hold across different genres? Use the dropdown selector for Genre and browse 3 different genres and explain.

(e) On the X axis dropdown selector, select `imdbRating`, on the Y axis select `BoxOffice`. Do higher rated movies achieve higher box office sales?

(f) On the X axis dropdown selector, keep `imdbRating`, on the Y axis select `Length` (runtime). Are higher rated movies tend to be longer? Explain.

2. Go to https://www.reddit.com/r/dataisbeautiful/comments/1ncsti1/oc_apple_event_2025_most_frequently_used.

(a) What is being measured in this visualization? Identify the variable(s) on the axes. What does "frequency" refer to in this context?

(b) Which adjectives are the most frequent? Which are less frequent? What might that tell you about the tone or messaging strategy of Apple during this event?

(c) Find one comment in the comments section that you think is interesting. Write it down and explain why you found it interesting.

(d) Describe one other way the same data could be visualized.

(e) Suppose you were asked to compare this Apple Event with a past event (say 5 years ago) in terms of adjectives used. Outline a strategy you might use (what to collect, what to plot) and one obstacle you might encounter.

3. Go to https://www.reddit.com/r/dataisbeautiful/comments/1hf04x9/2024_in_search_trends_oc.

(a) Describe what this chart is showing.

(b) Pick one topic from the chart and describe when its search interest was highest and lowest in 2024.

(c) What might a sudden spike in search interest suggest, compared to a flatter or more stable trend?

(d) Pick a search topic from the figure that surprised you. What do you think explains its pattern?

4. Go to https://www.reddit.com/r/dataisbeautiful/comments/1ftmkwt/oc_foods_cost_vs_caloric_density.

(a) What kind of chart is being used?

(b) What are the variables in this chart? Which is on the x-axis and which is on the y-axis?

(c) Describe the relationship between cost and caloric density: do more calorie-dense foods tend to cost more, less, or is there no clear pattern?

(d) Can you claim the relationship you see is causal? Why or why not?

(e) Are there outliers (foods that cost a lot but are low calorie, or vice versa)? What might explain those outliers?

(f) Name three foods that are the cheapest while providing the most calories per cost.