Project – Stage2

In the 2nd stage of project, your tasks are to refine your designs in Project 1, if needed, choose one design that you think works best for answering your picked question, and implement that design.

Now you have some feedbacks about your designs for the first stage of the project. Based on the feedback, you can make any necessary revision on your designs. If you choose to revise some part of your previous design, in your submission, you should clearly discuss: 1) how do your previous designs change, and 2) why do you make such changes.

Note: if you want a very good grade for this project, you must do a **go-beyond-above** design (see grading policy on the course website). For example, a design of clicking and highlighting elements will **NOT** give you a very good grade, because so many systems or tools have such designs.

Pick one design, which you think, can best help to answer your question and implement the design. Make sure that the design you picked includes the following necessary components:
- At least three visualizations.
- A clear way of displaying the 3 types of relations: *one-to-one*, *one-to-many*, *many-to-many*, and such relations are among visual elements across different visualizations (e.g., between nodes in a graph and bars in a histogram).
- A clear way of displaying a number (at least three) of relations for each of the three types (e.g., three *many-to-many* relations between nodes in a graph and bars in a histogram).
- Useful interactions that enable users to investigate the relations.

D3.js is recommended for the implementation. If you choose to borrow existing examples, libraries, or any work developed by others, you **MUST** claim that in your submission, by giving references for them. If you fail to make such claims, a penalty of 30 points will be taken off. Also, you should use good software engineering practices (e.g., separating content, style, and behavior).

Write a document to clearly describe your picked final design. Your discussion should include:
- Are there any changes, compared to your previous design? If so, what exact changes have you made? Why do you want to make such changes?
- Which three or more visualizations are included in your final design?
- How does each of the three types of relations look like in your final design?
- What user interactions does your final design enable?
- Use the state diagram, discussed in week 5, to describe changes on visual elements, which allows users to see and explore those three types of relations.
- How to deploy and run your code.

Make sure that your discussion in this document includes enough detail. Just one or two sentences, corresponding to each of the above, will **NOT** be helpful for your grade. The document should be written in MS Word (Times New Roman font, size 12, single line spacing, no page limit).

You submission should include: 1) the document, and 2) the codes of your design implementation.