**General Notes:**

* Required to be on campus
* However, we are free to go wherever. "honor system".
* 10 minutes for presentations. "formal".
* Must explain detail:
  + the questions you and your group found interesting and what motivated you to answer them
  + where and how you found the data you used to answer these questions
  + the data exploration and cleanup process (w/ jupyter notebook)
  + the analysis process (w/ jupyter notebook)
  + your conclusions, this should include a numerical summary as well as visualizations of that summary
  + discuss the implications of your findings. this is where you get to have an open-ended discussion about what your findings "mean".

**Requirements:**

* 3-4 Questions from the get-go.
* Use Pandas to clean and format your data set(s)
* Create a jupyter notebook describing the \*\*data exploration and cleanup\*\*
* Create a jupyter notebook illustrating the \*\*final data analysis\*\*
* Use matplotlib to create a total of 6-9 visualizations of your data (ideally at least 2 per question you ask of your data)
* Save PNG images of your visualizations to distribute to the class and instructional team, and for inclusion in your presentation.
* Optionally, use at least one API if you can find an API with data pertinent to your primary research questions.
* Create a write-up summarizing your major findings. This should include a heading for each "question" you asked of your data, and under each heading, a short description of what you found and any relevant plots.

**Project Proposal:**

* Outline the scope and purpose of your project
* Prevent scope creep
* Write down what kind of data you plan to work with, and what kinds of questions you'd like to ask of it. (kind of data you'd like to work with/field you're interested in, the kinds of questions you'll be asking, possible source of such data)
* Data Source Recommendations:
* Are sufficiently large
* Have a consistent format
* Ideally contain more data than needed
* Are well documented

End of Day (2/23/19) Items:

- Brainstorm possible ideas

- Begin data research

- Write a description of the scope of your research

- Create a short 1 page proposal listing out of each of the following:

* Project Title
* Team Members
* Project Description/Outline
* Research questions to answer
* Data Sets to be used
* Rough breakdown of tasks

**Schedule:**

2/23/19

* Research data sets
* Outline project ideas
* Submit project proposal for approval
* Initial data exploration

2/25/19

* Hardcore Development

2/27/19

* Hardcore Development

3/2/19

* Hardcore Development

3/4/19

* Hardcore Development

3/6/19

* Presentation Prep

3/9/19

* Presentations!