Project Milestone 2 (Submitted on 1/5/2020)
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Goal setting
Our project aims to offer interactively visualized directions to help users hunt UFO in United States. For this purpose, we set the project's major goal to create the following visual products.

1. Main map to show the spots where the UFOs were seen for over a century
2. Interactive instruction for UFO hunting based on statistical data

On the main map, users can freely explore past UFO sightings. For example, they can zoom in a sighting that they are interested in and click the sighting to obtain detailed information. Also, users can choose time range and restrict sightings to be shown on the map as they wish. The interactive instruction directs users to the place and the time where and when encounters to the UFO is likely to occur. With statistical data such as top states or seasons that the most sightings are reported in, the reliability of the instruction is built up. The skeleton of our website is now accessible from the following link:
https://com-480-data-visualization.github.io/com-480-project-een1/

Work Breakdown Structure (WBS) for each product
For actual implementation, works to create the main products are broken down as follows. MVP and EP, here, stand for Minimum Viable Product and Extra Product respectively.
WBS for Main US UFO Map

- Design the US map (MVP)
- Add pan and zoom in/out feature for the map (MVP)
- Plot UFO sightings on the map (MVP)
- Implement pop up window to show detailed information (MVP)
- Create bar charts to show time vs num sightings (MVP)
- Implement the function to choose time range (MVP)
- Collect data to find some cluster of sightings that are later found as not being unidentified since they can be explained by something else and highlight them on the map (EP)
- Visualize the map with Alien-style (EP)

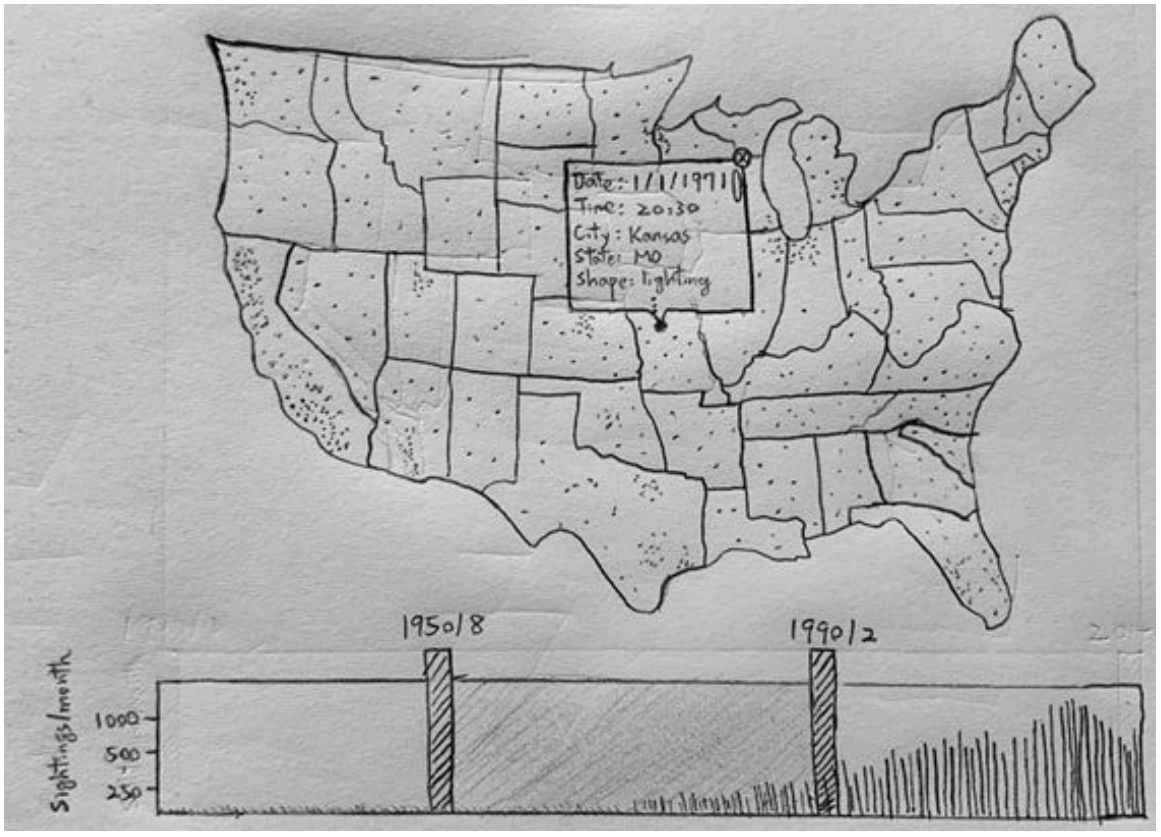
WBS for Interactive instruction for UFO hunting

- Do statistical analyses of data (MVP)
- Create charts based on the results of the analyses (MVP)
- Implement functions to show information about the charts when cursor is on (MVP)
- Add description for the instruction (MVP)
- Implement functions to change shown figure by scrolling down (ref: https://smashdelta.com/smartcities) (EP)

Tools and Lectures to be utilized in the project
The project uses D3.js to create the map and charts in the instruction and to add interactive features to them. Thus, lectures related to D3.js, SVG, Maps, and Graphs are especially needed for our project. However, any other lectures than Sound viz are also necessary to the project.

Sketches

Sketches for our main products are shown in the following figures.



Sketch 1: Main Map

Sketch 2: Instruction for UFO hunting