Basic Information

- **Project Title:** Examining the Consistency of UFO Sighting Reports
- **Group Members:**
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    - Ellie Painter, rapaint@clemson.edu, C24975483
    - Emily Wilber, emwilbe@clemson.edu, C18656247
- **Repo:** https://github.com/AsaAdomatis/CPSC-4030-Project

Background and Motivation

- **Motivation:** Personal interest in UFO conspiracy and recent news events about UFOs/UAPs like the military released videos and the Mexican aliens.
- **Reasoning:** See if there's any patterns or consistencies within sightings to analyze how valid sightings are.

Project Objectives

- **Primary Goal:** Are there consistent patterns in UFO sightings Reports?
- **Secondary Goals:**
    - Is there a consistent location or set of locations UFO sightings are likely to happen at?
    - Is there a consistent time where UFO sightings are likely to happen at?
    - Do similar sightings have a consistent description of the encounter?

Data

- **NUFORC Data:**
    - Link: https://www.kaggle.com/datasets/NUFORC/ufo-sightings/versions/1/data
    - Alternative: https://data.world/timothyrenner/ufo-sightings
        - This source is up to date, but not as well cleaned.
- **Population Data for US:**
    - Link: https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total.html
- **Shape Files for US Counties and States:**
    - Link: https://www.census.gov/geographies/mapping-files/time-series/geo/carto-boundary-file.html

Data Processing

- **Data Clean-Up:**
    - The alternate dataset (2022) needs duration data to be converted from an unformatted string to a discrete number.
- **Derived Quantities:**
    - A county attribute that's derived from long. lat. or coordinates
    - A more generalized shape attribute to group things like oval, and circle together
- **Data Processing Implementation:**
    - We will use Python to convert the lat. long. data into county data

Visualization Design

- **Consistent Location 1:** Heat Map
- **Consistent Location 2:** Sightings by State
- **Consistent Time:** Sightings by Year
- **Consistent Time:** Sightings by Duration
- **Consistent Shape:** Sightings by Shape

Must-Have Features

- Filter each visualization by time frame
- Filter each visualization by shape
- Filter each visualization by state/county
- Show data in both raw form and both population adjusted form

Optional Features

- Interact with data points on the geography and get additional description of the event
- Look at location visualization by country or by individual state

Project Schedule

- **Week 1 (10/2):**
    - Thursday: **Project Proposal**
- **Week 2 (10/9):**
    - To-Do:
        - Complete Website
        - Create alternates for visualization and refine them from feedback
        - Clean 2022 data duration times
        - Derive County information from city on lat./long. coords
        - Derive generalized
- **Week 3 (10/16):**
    - Tuesday: Fall Break
    - To-Do:
        - 1 Visualization in D3js
- **Week 4 (10/23):**
    - To-Do:
        - 2nd & 3rd Visualization in D3js
- **Week 5 (10/30):**
    - Sunday: **Project Prototype**
    - To-Do:
        - Final Visualization in D3js
        - Hook Visualizations up to Website
- **Week 6 (11/6):**
    - To-Do:
        - Work on first half and a little more of visualizations for Peer Eval

- **Week 7 (11/13):**
    - To-Do:
        - Work on second half of visualizations
        - Write Peer Eval
    - Sunday: **Peer Evaluation**
- **Week 8 (11/20):**
    - To-Do:
        - Fix issues from Peer Evaluation
- **Week 9 (11/27):**
    - To-Do:
        - Fix issues from Peer Evaluation
- **Week 10 (12/4):**
    - Tuesday and Thursday: **Oral Presentation**
    - To-Do:
        - Fix any final issues from commentary on the Oral Presentation
- **Week 11 (12/11):**
    - Monday: **Final Delivery**
    - Monday: **Peer Assessment**