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## pm-06: Finish Project

*This is a group assignment*

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### Purpose:

The purpose of this assignment is to finish your final project.

### Tasks:

Please review the [Project Overview](#) document for a refresher on final project expectations. The requirements listed there must be met unless you have explicit approval from the instructor to do a differentiated project.

#### 1. Demo Video (20 points)

Create a demo video of your visualization tool in action. The video should meet the requirements laid out in the Project Overview:

- **Specification** The video must:
  - Be 1–2 minutes long.
  - Include a title slide listing (in this order): 1. Name of the project, 2. Full names of group members, and 3. DS 4200 Fall 2022 — Prof. Ab Mosca, Northeastern University.
  - Be encoded with the H.264/MPEG-4 AVC codec. If necessary, you can use [Handbrake](#) (or another tool of your choosing) to convert between formats.
  - Be at least 1920x1080 — 1080p resolution and have a 16x9 aspect ratio. There should be few to no compression artifacts (e.g., text and thin lines should be clearly readable). Letterboxed or upscaled video does not meet these requirements.
  - Be embedded on your web page using the HTML5 <video> tag.
  - Include captions. [This resource](#) explains how to include captions in an embedded video, and more details are provided in the Content section below.
- **Content** The video must:
  - Include a video screengrab of the final visualization in-action.
  - Clearly step the viewer through how to use the final visualization. This should include enough detail for the viewer to understand the data visualized, what tasks the visualization tool supports, and the visualization tool's visual idioms (encodings, interactions, etc.).
  - Include a clear and audible audio narration.
  - Include subtitles, which you can [generate via YouTube](#), but will need to proofread and edit yourself. (Note: finalized subtitles should be downloaded as a .vtt file).
  - Optionally: include annotations to highlight areas of interest.

#### 2. Written Report (35 points)

Review your project report and finalize the content in all sections. You may update sections based on feedback from previous pm assignments. Below is a recap of what we expect in each section, and if applicable a note of which pm corresponds to the current content in that section. Remember, your report should be well written and formatted.

- **Abstract** (pm-02)
  - High-level description of domain tasks your visualization supports.
  - High-level explanation of why it is important to support these tasks.

- **Introduction** (pm-02)
  - Detailed description of the domain tasks your visualization supports.
  - Detailed explanation of why it is important to support these tasks.
  - Brief description of the end user for your visualization.
  - Brief description of the data your visualization represents.
- **Related Work** (pm-02)
  - Summary of work presented in related work 1.
  - Explanation of how related work 1 informs your visualization.
  - Summary of work presented in related work 2.
  - Explanation of how related work 2 informs your visualization.
  - Proper citations.
- **Use Case** (pm-01 and pm-02)
  - Description of domain area in which tool would be used.
  - Specific description of intended user for your visualization tool.
  - Specific description of scenario in which your tool would be used.
- **Data** (pm-02)
  - Explanation of where your data comes from (who collected it)
  - A link to the original dataset(s)
  - Discussion of biases or ethical considerations for your data
  - Explanation of the data cleaning you performed, and any derived attributes you created
- **Design Process** (pm-02 and **pm-06**)
  - Three rough/partial sketches with brief descriptions.
  - Final polished sketch.
  - Description of rough sketches influenced final sketch.
  - Detailed description of final sketch including marks and channels chosen, general functionality, and coordination between views.
  - **pm-06** – Explanation of how and why the final visualization design evolved during the implementation process.
- **Final Design** (**pm-06**)
  - Screenshot of your final visualization tool.
  - High-level explanation of the tool's design.
  - Step-by-step description of how the target user from your use case would use the tool to solve the domain problem it addresses.
- **Discussion** (**pm-06**)
  - Reflection on your final visualization tool.
  - Explanation of whether the tool fully addresses the domain problem you set out to solve. If not, what is missing? What are the limitations of your work?
  - If you were to make improvements to your tool in the future, what would those improvements be? Describe them, and explain why you would make them.
- **Conclusion** (**pm-06**)
  - High-level recap of what you did for this project, similar to your abstract, but with a brief discussion of your contributions in this project.

### 3. Webpage (18 points)

Review your webpage and finalize the content in all sections. You may update sections based on feedback from previous pm assignments. Below is a recap of what we expect in each section, and if applicable a note of which pm corresponds to the current content in that section. Remember, your webpage should be well written and formatted.

- **Title** (pm-03)
  - Short title for your project.

- Header 1 (pm-03)
  - Title of your project.
- Motivation (pm-03)
  - Introduction/motivation for your project. Include the domain area your project addresses, the domain problem it seeks to solve, why solving this problem is important, and an overview of the use case for your tool.
- Background (pm-03 and **pm-06**)
  - Subsection titled Data.
    - Include a discussion (at a high-level) of what data your tool visualizes, the source of the data, biases and ethical issues embedded in the data, and any data quality issues you found. Add a link to the raw data.
  - **pm-06** – Subsection titled Demo Video.
    - Include demo video meeting requirements outlined above.
  - **pm-06** – Subsection titled Report.
    - Include a link to your final report.
- Visualization (pm-05)
  - Complete visualization tool.
- Acknowledgements (pm-03)
  - Clickable links to resources used.

#### 4. Presentation (17 points)

**\*\*Your presentation does not have to be finalized by the due date of this assignment, but you must select a presentation slot by the due date.\*\***

Prepare for your in-class presentation. Your presentation must meet the following requirements:

- Be ~10 minutes in duration.
- Include an additional ~2 minutes to answer questions from the audience.
- Include either a live demo of the final visualization, or a pre-recorded video demonstration of the visualization. You may use your webpage demo video, or you can record a new video specifically for your presentation. A demo video is recommended over a live demo; however your demo should not be repetitive of other parts of your presentation.
- Be created using Google Slides and not require any local files. We will use the classroom PC for presentations, so your presentation cannot rely on any files not on the classroom PC.
- Content-wise, the presentation should:
  - Provide an explanation of the domain problem the visualization tool addresses, what tasks the visualization tool supports, of the visual encodings and interactions, etc..
  - Explain the design process at a high-level (Did you make any significant design changes throughout the project? If so, why?)
  - Showoff the hard work you put into your tool and what it can do!

Store your final presentation in the class GoogleDrive folder here:

[https://drive.google.com/drive/folders/1xYBXf2tUKsx0AqFBMGBE\\_CRKRjxNEKuX?usp=sharing](https://drive.google.com/drive/folders/1xYBXf2tUKsx0AqFBMGBE_CRKRjxNEKuX?usp=sharing)

Sign up for a presentation slot here:

<https://docs.google.com/spreadsheets/d/1jrVNw7Pb8IPthuU43WERQl0z1LHzE5pP87FZD9Q0jJo/edit?usp=sharing>

## Submission:

Be sure to push changes to your GitHub Repo. Make a PDF of your final report and submit on Gradescope.