CSC110 Project1: Project Phase 1: Proposal

Hanrui Fan, Ching Chang, Arkaprava Choudhury, Letian Cheng

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1. Project title (pick something informative and professional, but you can be creative too) and name of all group members.

2. Brief problem description and research question. (300–400 words)

- Give an overview of any background knowledge necessary for the reader to understand the problem you are studying.
- Provide context for the problem and motivate why you have chosen your research question.
- Your research question should be in *bold*; it should be fairly concise, but can be more than one sentence.

3. A description of at least one relevant dataset you have found. (150 words)

- State the source (e.g., government/organization website) and format (e.g., text, csv, json, image) of the dataset, and give some sample data contained inside that dataset.
- Don't be afraid to cobble together your own dataset, such as creating a collection of images that are related. Or to combine two datasets from different sources.
- You will also submit a small sample of your dataset to MarkUs along with your project proposal document. (See more below)

4. A computational plan for your project. (300–500 words)

- Describe the kinds of computations you plan to perform, such as: data transformation/filtering/aggregation, computational models, and/or algorithms.
- Explain how your program will report the results of your computation in a visual and/or interactive way. You don't need to go into a lot of details here, but it should be clear what you plan to do.

Technical requirement: for your project, you must use at least one Python library/module that we have not covered in this course, *or* use plotly or pygame to a much larger extent than what what have given you so far in this course. (See examples and note in the next section).

- In this part of your proposal, you should also describe one new library you intend to use, how you will use it, and why it is appropriate. Refer to specific functions, data types, and/or capabilities of the library that make it relevant for solving the problem you wish to solve.

5. A references section that lists the references you used for your proposal. This should include references from your topic research, the reference for where you obtained the dataset, and any online documentation or tutorials for the Python library you plan to use for the project.

- You may use any academic reference style you wish, e.g. APA or MLA.