CPSC 583 W2021 4TH PROJECT HAND-IN

Interaction and Final Project hand-in

The fourth and final part of your project consists of designing interactions for your visualizations, implementing them, and describing what you did.

Additionally, this hand-in constitutes the final project hand-in, and so, should also introduce, discuss, and conclude your project work.

The hand-in consists of four parts, aside from your general introduction (1), discussion (5), and conclusion (6):

1) Decide on the final visualization design in terms of representation, presentation, and interaction (3.6). While you should not consider representation alternatives, you might consider and discuss alternative solutions for interacting with the visualization.
2) Implement one or more compatible interactions (3.7).
3) Describe your final implemented visualization (4).
4) Describe your process (4.1).

These are described in detail in the following sections

FINAL STATIC DESIGN (3.6)

Based on your previous hand-ins, you decide on one visualization design that you choose for your final implemented visualization. You consider which interactions you want to offer, potential alternative and incompatible interactions, and any secondary information to show as part of your entire design. Secondary information could be text descriptions, legends, axes, or even small visualizations that might for example function as menus.

PROTOTYPING INTERACTION(S) (3.7)

You implement and describe your interactions, using D3 as appropriate. You can use sketches or screenshots from the final implemented visualization to describe the interactions.

FINAL IMPLEMENTED VISUALIZATION (4)

You describe your final implemented visualization and include screenshots. You describe what it offers, how it might be used, and what insights might be had from using it. You provide a link to the final version so that we can easily try it for ourselves (we suggest you use Github or http://pages.cpsc.ucalgary.ca/~[YOUR CPSC ACCOUNT NAME]).

PROCESS REFLECTIONS (4.1)

You describe your process of implementing the final visualization. Perhaps considering interaction made you revise some ideas? Perhaps interacting with it made you realize something about the data that you hadn't noticed? Perhaps the interaction itself made it possible to experiment in new ways? Or perhaps considering interaction mostly in the end of your project made you question the way you split what information can be understood from the visualization alone, versus brought up through interaction? Describe your thoughts about your process.

SUMMARY

As outlined above, you describe what you have done in writing based on the four headings and submit this as a pdf report that includes every part of your project. The final report should have the following sections:

1. Introduction	new
2. Data description	hand-in 1
2.1. Data descriptions	hand-in 1
2.2. Pros and cons of data sets	hand-in 1
2.3. Data set decision	hand-in 1
3. Design process	new, but probably just needs signposting. Could state design goals
3.1. Sketch-able data subsets	hand-in 2
3.2. Design direction	hand-in 2 ("Design direction in sketches")
3.2.1.First sketches	hand-in 2
3.2.2.Variations	hand-in 2
3.3. Process	hand-in 2
3.4. General design direction	hand-in 3
3.5. Prototyping variations	hand-in 3 ("Three variations")
3.5.1.Variation A	hand-in 3
3.5.2.Variation B	hand-in 3
3.5.3.Variation C	hand-in 3
3.6. Implementation process	hand-in 3 ("Process of implementing representation…")
3.7. Final static design	new
3.8. Prototyping interaction(s)	new
4. Final implemented visualization	new
4.1. Process reflections	new
5. Discussion	new
6. Conclusion	new

As the outline above indicate, it includes your previous hand-ins.

For the introduction, you describe what the project is about, the goal of the visualization, the visualized data on a high level, what you present in your report, and your main conclusions.

For the discussion, you reflect on what you did in the project. You discuss what might have been interesting to do if you had more time/resources, the advantages/disadvantages of the visualizations, and your main insights from doing the project (for example, what did you learn or what do you need to learn more about).

For the conclusion, you briefly state your main achievements.

The above outline includes your previous project hand-ins – while you can incorporate feedback when creating your final visualization, do not edit these previous hand-ins.

SUBMISSION

You submit your hand-in as a pdf. Use the template provided along with this description (if your preferred writing tools do not take docx, then just follow the main structure of the template). The title/subtitle of your report should include "CPSC 583 Final Project Report" and "[student id] | [date]".

DEADLINE

Wednesday April 14, 11:59pm Calgary time.

NEXT STEPS

You will receive a final mark for your project in D2L.

RUBRICS OF YOUR PROJECT WORK

	You made informed decisions (~25%)		You built it (~50%)	You effectively communicated your design (~25%)	
	Design Process	Design Principles	Implementation	Style of Report	Visuals
Excellent	You followed the design processes discussed in the course and your design decisions are clearly aligned with that process. You reflect on design trade-offs and how your process navigated you towards your decision	Your design shows significant evidence that they were supported by research or design principles, e.g., by citing papers and topics you learned in the course. Your terminology is precise and correct	Your visualization is interactive and functional. It may be extremely creative/ambitious but slightly buggy. It may also have polished, bug-free interactions but not as creative/ambitious as the top prototypes	Both style and tone are very strong, but a reader would be able to differentiate between your work and that of a company. For example, this could be because of grammatical issues, unclear pacing, etc.	Visuals clearly shows the design process and aligns with the design decisions made. They may not completely capture interaction or may not be of professional quality
Good	You mostly followed a design process, but the level of reflection leaves something to be desired. You may be writing summaries more than reflection. Important aspects of your design may be glossed over or important steps in the design process appear rushed	Your writing contains evidence that your decisions are aligned with existing principles, but your terminology may be imprecise. You may be missing some key concepts or some of your references may be incorrect	Your visualization is functional with some small bugs. While most of the interactions make sense, some lead to confusing user experience	Style and tone were pitched correctly, but there are areas of improvement - there may be a section of the writing that could use a subheading, or key points emphasized. Writing may be too casual or too formal. Visuals may be distracting	There are visuals in the document, but it may not align with your writing. There may be a disconnect between the evidence you show and your decisions. An aspect of the design process may have been addressed inadequately
Developing	A significant component of your reflection may be missing. It may read like a summary rather than a reflection. The length is likely too short with little structure that reflects the design process	Your writing refers to a couple of design principles, but largely lacks precision and citations (links)	Your visualization is limited. The scope of your project was defined in such a way that this should have been completed	Writing or structure does not work well in some respects. The writing might be incoherent, or the specified structure might not be used well. In addition, there are likely clarity issues, either due to writing content or style	Critical components of your design process are lacking evidence. From looking at the pictures in the document, it is very difficult to discern how your design progressed
Lacking	Writing is incomplete. Little to no reflection of the design process	There is little to no evidence that the readings/lectures have been incorporated into this assignment. At best, there are loose references	While there is evidence of progress towards a visualization, there is nothing to interact with	The reporting structure was not used and there are likely issues in how figures are included and referenced	Very little evidence. The images that are there do not demonstrate a connection to the design process
Missing	No reflection	No design principles referenced	There is little to no evidence of work on this project	No style to judge. Perhaps not submitted as a pdf	No documentation of the design process to explain your decisions

How to interpret the rubrics: By the end of the term, my goal is for you to be consistently achieving the Excellent row in the rubric. This roughly corresponds to getting full marks (100%). Good roughly corresponds to 90% and developing to 70%. While I enjoy seeing Expert level quality (green, below), this will not be reflected in your mark. The weighting for the dimensions is listed above the columns.

Rough relation to each project hand-in: Hand-in 1: NA, but also required a suitable choice of dataset to carry out the project which leans especially on Design Process and Design Principles at this stage. Hand-in 2: Design Process, Design Principles, Style of Report. Hand-in 3: All categories, especially Implementation and Visuals. Hand-in 4: All categories, especially Implementation. As percentages, each hand-in contributes approximately the following to your final grade: 1 – 10%; 2 - 20%; 3 – 30%; 4 (the new parts) – 40%.

Expert (exceeding expectations for the course)	You clearly reflect on each significant step of the design processes discussed in the course that is relevant to this project. They are in alignment with both your goals and with your decisions. Your description is indistinguishable from that written by a vis researcher, and the depth of reflection demonstrates mastery over the design space	You have supported each decision you made by research or design principles discussed in lectures or readings. Those principles are clearly articulated, use precise terminology, and properly cite their original source. Your decisions are supported to a degree passing peer review at top publication venues	Interacting with your visualization is virtually indistinguishable from interacting with a polished product. Your design is not just functional, but also ambitious and creative	Your writing is professional in quality. Your document exemplifies a tone and visual style that makes it indistinguishable from highly visible authors and companies	Visual evidence clearly shows the design process and aligns with the design decisions made. All visuals are extremely high quality