552 - Lab 2

4 Mar 2024

Guidelines

You may work in your preferred medium (Microsoft word, notepad, Rmarkdown, etc, etc) as long as the outputted and submitted file is of a commonly readable form (html, pdf, etc) and is well-organized (see rubric below).

Rubric

Summary of Decision

Marks	Assessment	Description
5	Excellent	All variables are clearly defined, objective/context variables are well thought out
4	Good	Most variables are clearly defined, maybe some objective/context variables missing or more than 5 provided
3	Satisfactory	Most variables are understandable, some objectives/context clear to the TA are missing
2	Unsatisfactory	Variables are a mixed bag, objectives/context are very surface-level
1	Poor	Variables are difficult to follow, little thought given to developing objectives/context

Proposal

Marks	Assessment	Description
10	Excellent	Well-organized, consistent font/format, easily readable format, clear and concise writing
8	Good	Pretty well-organized, consistent font/format, easily readable format, easily understood writing
6	Satisfactory	Okay organization, maybe some inconsistencies font/format, readable format, some minor difficulty understanding writing
4	Unsatisfactory	Organization needs work, some font/format issues, hard-to-follow format, hard-to-follow writing
2	Poor	No effort to make the content understandable to another human being, poor writing/organization

Tasks

You are to submit a *maximum* 1.5 page document to undertake the project of your choosing that we discussed in lecture. That is, an individual project focused on your interests (where you are the decision maker). Remember to keep the goals/work reasonable, as you only have approximately one week before you'll be writing up the report, and one more week before you'll be presenting the work to the class!! Again, this is not intended to be a complete work from brainstorming a problem to making a final decision. Data science projects automate or augment one of *many* possible tasks throughout a decision making process.

Specific tasks for Lab 2:

1. At the top of the Lab 2 document, summarize the variables associated with the 'decision' you will be embarking on in bullet format (like we did in lecture 4/portfolio). Reminder — this includes the decision variable (defining alternatives), providing the objectives of the decision, and the context. Again, let's keep the objectives/context to a maximum depth of 5 each.
2. Following the above, in a semi-formal proposal format (more on that below), propose the actual work that your mini-project will undertake. What part(s) of the above decision will you automate/augment? How will you do so? While *you* are the decision-maker for the project, pretend that you are trying to sell this project to your boss/manager. Use the following guideline:

All proposals must include...

- An introduction. This is similar to an executive summary: it "defines [the] problem, stresses its importance, and offers a brief description of the proposed solution." (Johnson-Sheehan et al., 2019, p. 169)
- Relevant background. What part of the decision-making process are you trying to help? What positive/negative impacts could this decision/information/automation have?
- Detailed plan. What specifically are you proposing to do for your project? How will this work ultimately aid the decision-making process?
- Cost-benefit. Why is your detailed plan better than any other approach... or better than doing nothing at all? How much work will be involved? How much efficiency will be gained?
- Conclusion. The conclusion reiterates the importance of taking action, and looks to the future. What does the Utopia look like with the perfect version of your proposed work? What might the next steps look like?

Structurally, the proposal should aim for a paragraph or two for each of my above bullet points above. (a sample was already shared with you - please do not use the same topic)