

# CMPT 826 - Data and Process Modeling and Analytics

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 [moodle.cs.usask.ca/mod/assign/view.php](https://moodle.cs.usask.ca/mod/assign/view.php)

For this project milestone you will be writing a short (less than one page or about 500 words) research proposal for an analysis using telemetry data. This assignment is meant to get you thinking about how to design such an analysis, but we will not necessarily be running the project you describe, rather, we will use the ideas described in your proposal to seed groups and ideas during our class after the due date. It is important that you demonstrate an understanding of what kinds of research questions can be asked, and how they might be implemented, but you will not be required to prototype any of the analyses. The proposal should be divided into two parts, a research question and an outline of operationalization.

Your question should be motivated/presented in two to three sentences, which explain why the research question is relevant. State both a research question and a falsifiable hypothesis. The research question should address an aspect of systems and tools, models and analysis, or human behavior. Please indicate clearly which category of question you are asking and why it fits into that category. In three to four sentences frame the question both computationally/sensing perspective (what implementation does this entail?) and from a theoretical perspective (note that the theoretical framing will differ based on question type: an analytic question will have different underlying theory than a human behavioral one).

The second section should describe, at a high level, how your research question will be operationalized to be answerable from the data available. Indicate at a block level what data will be needed, and which data fields or parameters. Very briefly describe how the data would be processed and indicate how difficult you think this analysis would be. Finally, indicate what external data you would need to answer your question (e.g. bus schedules, Saskatoon weather) and how you would obtain them. This operationalization section will be longer than the research question/framing section.