Assignment 1

CPSC 532L / CMPUT 654

Due February 1, 2022 (11:59pm Pacific Time)
Submit by email: `gregdeon@cs.ubc.ca`

Please assemble a group of 3–4 students, identify a problem domain that you are at least considering studying for the rest of the term, and explain why this domain is a good fit for the goals of the class. Your group should aim to write 1–2 typed pages answering the questions below. The sub-bulleted points are provided to help guide your responses, but it is not necessary to answer all of them if they are not a good fit with your chosen domain.

1. Describe the setting and justify why a strategic model is appropriate

   - Who are the players?
   - What actions are available?
   - Where do their payoffs come from?
   - Why is the setting strategic? (e.g., how do one agent's actions influence another's payoffs?)

2. What game representation(s) are appropriate to model key parts of the domain?

   - Do agents choose actions simultaneously or sequentially (and if the latter, do they observe each other's moves)?
   - Do agents interact once or repeatedly?
   - Do agents have knowledge of their and others' payoffs?

3. Why do human behavioral considerations come into play in this setting?

   - How might skilled actors behave different from unskilled actors?
   - What irrational behaviors might agents exhibit?
   - What data would be useful to have?