SA421 – Simulation Modeling
Assoc. Prof. Nelson Uhan

Fall 2017

Project 1 – Feedback

0 How I graded your assignments

- Similar process to Assignment 1, 3, and 4, and Project 0.
- See page 4 for the rubric.
- I've started using some shorthand for comments. See page 3 for the dictionary.
- Remember that my comments (in particular, my marks directly on your report) are not comprehensive. Consider carefully how they may apply to other parts of your writing.
- If you have any questions, please ask!

1 Comments to the class

- On the whole, your reports were pretty good. The language in the output data analysis sections has noticeably improved over past reports.
- Many of you struggled to make a convincing case for using the exponential distribution to model the interarrival and parking times. Instead of using a process of elimination among the distributions we're using in this class, make a case based on the typical uses of the exponential and gamma distributions. Such an argument would be much more convincing to the Midville Mall planners. Remember in Lesson 6, we discussed that the exponential and gamma distributions are widely used to model service and interarrival times in queueing systems.
- When there are multiple objectives to consider, there is often not a clear winner. For this project, the planners' goals are vague enough that an "optimal solution" is not well-defined. Consider the following table and sentence:

Number of parking levels	Average fraction of spots occupied	Average time to find a parking spot (min)
3	0.903	3.223
4	0.851	1.283
5	0.755	0.006
6	0.629	0.000

Table 1: Predicted values from simulation experiment

> From the table above, we see that having 4 levels is optimal, since both of the planners' goals are maximized.

- Many of you wrote about the "average delay in the parking queue," which is fine. It would be even better if you translated this into the context of the problem, e.g. "average time to find a parking spot."
- "Renege data" is too vague. This might refer to a data set that contains the number of customers who renege, which is not what we have for this project. Instead, say "renege time data."

- On “less” vs. “fewer”, from Grammar Girl:

  > If you want a simple rule, the difference between less and fewer is straightforward: The traditional advice is that fewer is for things you count, and less is for things you don’t count.
  >
  > You can count M&Ms, glasses of water, and potatoes – so you eat fewer M&Ms, serve fewer glasses of water, and buy fewer potatoes for the salad.
  >
  > You can’t count candy, water, or potato salad – so you eat less candy, observe that the lake has less water, and make less potato salad for the next potluck.
  >
  > `http://www.quickanddirtytips.com/education/grammar/less-versus-fewer`

  Consider the following sentence:

  > Due to cost considerations, the Midville Mall planners might consider having less levels in the parking garage.

Dictionary of comment shorthands

Mark	Translation
imp	Imprecise. Try to rephrase.
awk	Awkward. Try to rephrase.
inf	Too informal. This includes using abbreviations, contractions, or variable names.
?	Incorrect word or phrase: spelling error, typo, poor word choice.
×	Incorrect term or statement.
G	Issue with grammar.
cap	Check capitalization.
red	Redundant.
wordy	Wordy. Try to rephrase.
detail	Language is fine, but needs more detail.
stretch	Statement not entirely based on given background information.
F	Issue with formatting. Check Markdown syntax, if applicable.
NS	Not sure what you mean.

Grading rubric

	Exemplary (10)	**Satisfactory (8)**	**Unsatisfactory (4)**	**Weight**
Organization / Focus	Paper has a clear focus and is clearly organized so that the reader knows where they are in the narrative / analysis	Organization is there, but sometimes focus is unclear	Incoherent	1
Style / Tone	Appropriate for an academic journal or professional memo	Appropriate for a student paper	Too informal, too many superlatives, too wordy, imprecise	1
Grammar / Punctuation / Spelling / Formatting	No detected errors	A few minor errors	Distracting	1
Appropriate use of technical language	All technical language is used correctly	Technical language is used correctly, for the most part	Technical language is consistently incorrect or imprecise	1
Presentation of results	Results are clearly presented with any tables explained and referenced	Results are presented and described correctly, for the most part	Results are poorly presented or not presented at all	2
Interpretation of results / Conclusions	All conclusions are correct and supported by the results presented; caveats are discussed as appropriate	Key conclusions are correct and supported by the results presented	At least one key conclusion is incorrect or missing	2
R Markdown and JaamSim	Correct, runs from top to bottom without intervention		Otherwise	2
Total				100 points