CSCI 2235
Programming Assignment 03

Solution Key

Assigned: September 23, 2019
Due: October 04, 2019 @ 23:00h

Grading (50 points)

- Implementation of **LinkedQueue** – 5.75 points (.25 per test)
- Implementation of **LinkedDeque** – 8 points (.25 per test)
- Implementation of **LinkedStack** – 5.75 points (.25 per test)
- Implementation of **Simulation** – 5.5 points
- Report – 25 points (breakdown as follows):
  - Format – 5 points
    - Must be in IEEE format and references (if any) must also be IEEE format
    - Must be at least 2 pages but no more than 5 pages in length (do not read past the 5th page)
    - Must include the following sections:
      - Introduction – A brief summary of the project and motivation for the study. This should include the problem statement in your own words and the main hypothesis you are investigating.
      - Background and Related Work (optional) – A synthesis of related work and related studies connecting this work to other work in the area.
      - Simulation Design – A description of the simulation, how it works, and what was to be studied.
      - Experimental Methods – The design of the experiment and what is to be compared. This should indicate how the simulation approach will be used to investigate the hypothesis you are studying.
      - Results – The actual results of the experiment. A chart/graph of the data would be useful here along with a table summarizing what was found. Do not simply put all the raw data in the report. You should also describe the results in paragraph form.
      - Analysis and Interpretation – Analysis of the results indicating the importance of the findings and their meaning in the context of the problem.
      - Conclusions – A summary of the paper, the key findings and their interpretation in the context of the problem, and paths towards future studies.
      - References (in IEEE Format)
  - General Writing – 5 points

    * This should review the Introduction, Background/Related Work (if any), Simulation Design, and Experimental Methods. Basically these sections should be written such as to convey the information noted above, and be in paragraph format. The general writing should logically flow and be competent.
- Results, Analysis, and Conclusions – 15 points
    * Here you should review their Results, Anallysis, and Conclusions sections. The Results should have paragraph format, should show the main results in a couple of figures and a table. We should expect to see that the Queue is the overall best, then the Deque, and at the end the Stack. In their simulation design, they should have counted not only the people leaving the line, but at the end they should empty all lines to see how long people were waiting who never got out of line. The Analysis section should discuss this aspect, and finally the conclusions should summarize the whole paper. Be forgiving, as they probably (99% chance) have never written a paper like this.

If you need more guidance please let me know.