CSE214

HOMEWORK 4 - SPRING 2025

HOMEWORK 4 - GRADING KEY

1. (17 points) Documentation and coding style:

- Name, ID number and recitation at the top of ALL java files [2 points]
- Precise and correct specifications [5 points]
- Indentation [3 points]
- Variable names [2 points]
- Javadoc Style documentation *(see NOTE). [5 points]

NOTE 1: You only need to submit your .java files. We will use the javadoc *.java command to create the javadoc files.

NOTE 2: YOUR ASSIGNMENT WILL NOT BE GRADED if you submit only *.class files.

2. (25 points) Source code:

- Implementation done as specified (additional methods are OK). [8 points]
- Coding style: flexible, extensible, good use of methods and avoid duplicate code. [4 points]
- Throw an exception back to the calling method if a precondition is violated. [3 points]
- Properly extend a Java API class or have your own implementation for the Queue (Restaurant) class. [10 points]

3. (58 points) Program correctness:

- Program compiles without any errors. [15 points]
- Program correctly generates random numbers. [2 points]
- Program correctly calculates final simulation statistics. [5 points]
- Program correctly simulates a variable number of simulation units. [3 points]
- Program correctly handles restaurant capacity restrictions. [3 points]
- Program adheres to the following trends:
  - Increasing number of customers a restaurant can serve causes decrease in lost customers. [5 points]
  - Decreasing number of customers a restaurant can serve causes increase in lost customers. [5 points]
  - Increasing number of chefs causes decrease in customer wait time, increase in customers served. [5 points]
  - Decreasing number of chefs causes increase in customer wait time, decrease in customers served. [5 points]
  - Increasing arrival probability of customers causes increase in lost customers. [5 points]
  - Decreasing arrival probability of customers causes decrease in lost customers. [5 points]
