

Programming Final Grading Test Cases
CSCI 201L Fall 2016
10% of course grade

Part 1 – 5.5% Total

Tests A – 2.00% - New Coffee Shop and Dining Table Locations Added

- -.75% – New node anywhere on the Factory grid resembles a Coffee Shop (Test P1.A.1)
- -.75% – New node anywhere on the Factory grid resembles a Dining Table (Test P1.A.2)
- -.50% – Dining Table’s Image matches the one pictured below (Test P1.A.3)
- -.50% – Coffee Shop’s Image matches the one pictured below (Test P1.A.4)
- -.25% – If you hover your mouse over the Dining Table, a label saying “Dining Table” appears. Full credit given to alternative labels like “dining”. (Test P1.A.5)
- -.25% – If you hover your mouse over the Coffee Shop, a label saying “Coffee Shop” appears. Full credit given to alternative labels like “coffee”. (Test P1.A.6)

Tests B - 0.50% - Changing factory.txt changes the location of the Dining Table or Coffee Shop

- -.25% – Open the factory.txt. Change the location of the Dining Table. Instructions on how to specify the new location may be in the student’s README.md. Check here first. If no mention was found, match the current formatting of the provided factory.txt. Restart the program. Now the Dining Table should be located at the new location you specified. (Test P1.B.1)
- -.25% – Repeat previous test with Coffee Shop. (Test P1.B.2)

Tests C - 0.50% - FactoryWorkers navigate to Coffee Shop Properly then Wait

- -.20% – All FactoryWorkers visit the Coffee Shop immediately after starting at the FactoryTaskBoard. They should visit the coffee shop even after the first visit to the TaskBoard. If workers visit the coffee shop every time *after* but not including their initial TaskBoard visit, partial credit should be awarded. (Test P1.C.1)
- -.10% – FactoryWorkers visit the Coffee Shop after revisiting the FactoryTaskBoard once they’ve finished their first product (Test P1.C.2)
- -.20% – All FactoryWorkers wait for approximately ½ a second at the coffee shop if the dining table has <3 workers currently. (If >=3 workers are at the dining table, the workers do not need to abide by this wait time.) (Test P1.C.3)

Tests D - 0.50% - FactoryWorkers navigate to Dining Table Properly then Wait

- -.20% – All FactoryWorkers visit the Dining Table immediately after starting at the FactoryTaskBoard (Test P1.D.1)
- -.10% – FactoryWorkers visit the Dining Table after revisiting the FactoryTaskBoard once they’ve finished their first product (Test P1.D.2)
- -.20% – All FactoryWorkers wait for approximately 5 seconds at the dining table. (Test P1.D.3)

Tests E - 2.00% - A Maximum of 3 FactoryWorkers Visit the Dining Table at Once – Others Wait at the Coffee Shop

- -1.00% – A maximum of 3 workers visit the Dining Table at any given time. (Test P1.E.1)

- .50% – FactoryWorkers waiting for an empty spot at the Dining Table wait at the Coffee Shop. (Test P1.E.2)
- .50% – Code check - Some synchronization attempt was made. Examine the student’s FactoryWorker:run() method or their FactoryCoffeeShop class for evidence of a semaphore or some equivalent functionality. (Test P1.E.3)

Part 2 – 3% Total

Tests A - 1.00% - FactoryServerGUI is populated with past orders only after finishing

- -.50% – Any new text appears on the FactoryServerGUI that resembles a past order in some way. (Contents of the new text doesn’t have to match the photo below exactly.) (Test P2.A.1)
- -.50% – This new text appears only after the factory completes, no text is displayed before the entire factory finishes. (Test P2.A.2)

Test B – 0.75% - Past Orders Start with “WorkerN”, representing the FactoryWorker name

- -.75% – The new text added begins with “WorkerN” where N represents some integer. (Test P2.B.1)

Test C – 0.50% - Past Orders Include with “ordered coffee at” text

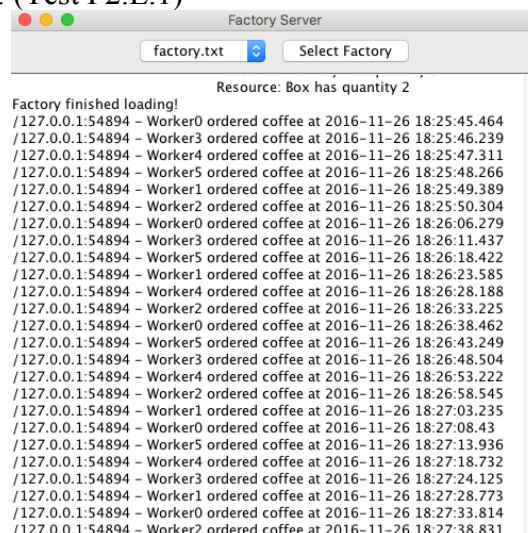
- -.50% – The new text added includes the substring “ordered coffee at” (Test P2.C.1)

Test D – 0.50% - Past Orders Include the time when coffee was ordered

- -.50% – The new text added finishes with a complete time stamp which represents the time when the coffee was ordered. The time stamp does not need to match the provided screenshot below exactly. (Test P2.D.1)

Test E – 0.25% - Past orders are ordered properly, beginning with the first item ordered and ending with the last item ordered

- -.25% – Run the game and observe the order in which the first few workers visit the Coffee Shop. Run the factory until completion. The past orders that are now visible on the FactoryServerGUI should be displayed in the same order you saw the workers visit the Coffee Shop. For example, if you see Worker 0, Worker 3, then Worker 4 visit, the output should look like: (Test P2.E.1)



The screenshot shows a window titled "Factory Server" with a text area containing the following text:

```

Resource: Box has quantity 2
Factory finished loading!
/127.0.0.1:54894 - Worker0 ordered coffee at 2016-11-26 18:25:45.464
/127.0.0.1:54894 - Worker3 ordered coffee at 2016-11-26 18:25:46.239
/127.0.0.1:54894 - Worker4 ordered coffee at 2016-11-26 18:25:47.311
/127.0.0.1:54894 - Worker5 ordered coffee at 2016-11-26 18:25:48.266
/127.0.0.1:54894 - Worker1 ordered coffee at 2016-11-26 18:25:49.389
/127.0.0.1:54894 - Worker2 ordered coffee at 2016-11-26 18:25:50.304
/127.0.0.1:54894 - Worker0 ordered coffee at 2016-11-26 18:26:06.279
/127.0.0.1:54894 - Worker3 ordered coffee at 2016-11-26 18:26:11.437
/127.0.0.1:54894 - Worker5 ordered coffee at 2016-11-26 18:26:18.422
/127.0.0.1:54894 - Worker1 ordered coffee at 2016-11-26 18:26:23.585
/127.0.0.1:54894 - Worker4 ordered coffee at 2016-11-26 18:26:28.188
/127.0.0.1:54894 - Worker2 ordered coffee at 2016-11-26 18:26:33.225
/127.0.0.1:54894 - Worker0 ordered coffee at 2016-11-26 18:26:38.462
/127.0.0.1:54894 - Worker5 ordered coffee at 2016-11-26 18:26:43.249
/127.0.0.1:54894 - Worker3 ordered coffee at 2016-11-26 18:26:48.504
/127.0.0.1:54894 - Worker4 ordered coffee at 2016-11-26 18:26:53.222
/127.0.0.1:54894 - Worker2 ordered coffee at 2016-11-26 18:26:58.545
/127.0.0.1:54894 - Worker1 ordered coffee at 2016-11-26 18:27:03.235
/127.0.0.1:54894 - Worker0 ordered coffee at 2016-11-26 18:27:08.43
/127.0.0.1:54894 - Worker5 ordered coffee at 2016-11-26 18:27:13.936
/127.0.0.1:54894 - Worker4 ordered coffee at 2016-11-26 18:27:18.732
/127.0.0.1:54894 - Worker3 ordered coffee at 2016-11-26 18:27:24.125
/127.0.0.1:54894 - Worker1 ordered coffee at 2016-11-26 18:27:28.773
/127.0.0.1:54894 - Worker0 ordered coffee at 2016-11-26 18:27:33.814
/127.0.0.1:54894 - Worker2 ordered coffee at 2016-11-26 18:27:38.831

```

Part 1&2 – 1.50% Total

Test A - 1.50% - No race conditions or compilation errors occur

- -1.50% – No compilation errors appear in the console of Eclipse and workers do not get stuck in one grid cell of the factory for an extended amount of time (indicating deadlock). Partial credit can be awarded.