CS 1632 Software Quality Assurance

Deliverable 4

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(Note: this is an individual project. No groups allowed.)

1. Optimized Feature 1

   a. Write the name of the feature optimized (the label on the button)
      RunContinuous

   b. Write the name(s) of the method(s) you refactored to optimize this feature
   MainPanel.calculateNextIteration() and MainPanel.iterateCell()

Name	Self Time (CPU)		Total Time (CPU)		Invocations
Cell.setAlive (boolean)	30.3 ms	(37.4%)	30.3 ms	(11.3%)	3,803
MainPanel.runContinuous ()	15.5 ms	(19.1%)	68.9 ms	(25.7%)	1
MainPanel.calculateNextIteration ()	14.6 ms	(18.1%)	56.9 ms	(21.2%)	76
MainPanel.iterateCell (int, int)	12.9 ms	(16%)	12.7 ms	(4.8%)	1,900
MainPanel.getNumNeighbors (int, int)	7.70 ms	(9.5%)	0.666 ms	(0.2%)	1,900
Cell.getAlive ()	0.0 ms	(0%)	0.0 ms	(0%)	19,000
Cell.resetBeenAlive ()	0.0 ms	(0%)	0.0 ms	(0%)	3
RunContinuousButton$GameRunnable.run ()	0.0 ms	(0%)	68.9 ms	(25.7%)	1
StopButton$StopButtonListener.actionPerformed	0.0 ms	(0%)	0.0 ms	(0%)	1
RunContinuousButton$RunContinuousButtonListener	0.0 ms	(0%)	0.0 ms	(0%)	1
Cell$CellButtonListener.actionPerformed (java.aw	0.0 ms	(0%)	0.0 ms	(0%)	3
MainPanel.stop ()	0.0 ms	(0%)	0.0 ms	(0%)	1
MainPanel.displayIteration (boolean[][])	0.0 ms	(0%)	29.4 ms	(11%)	76
MainPanel.backup ()	0.0 ms	(0%)	0.0 ms	(0%)	76

   c.

2. Optimized Feature 2

    a. Write the name of the feature optimized (the label on the button)
       Write

    b. Write the name(s) of the method(s) you refactored to optimize this feature
       Cell.toString()

Name	Self Time (CPU)		Total Time (CPU)		Invocations
⊕ FileAccess.**saveFile** (String, String)	46.8 ms	(100%)	46.8 ms	(51.2%)	44
⊕ Cell.**toString** ()	0.0 ms	(0%)	0.0 ms	(0%)	1,100
⊕ Cell.**getAlive** ()	0.0 ms	(0%)	0.0 ms	(0%)	1,100
⊕ WriteButton$WriteButtonListener.**actionPerfor**	0.0 ms	(0%)	44.7 ms	(48.8%)	44
⊕ MainPanel.**toString** ()	0.0 ms	(0%)	0.0 ms	(0%)	44

    c.