



CS 1632 Software Quality Assurance

Deliverable 4

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1. Optimized Feature 1

- Write the name of the feature optimized (the label on the button)
Load
- Write the name(s) of the method(s) you refactored to optimize this feature
Cell.toString()
- Insert a screenshot of VisualVM CPU profiling **after** optimizing Feature 1. Please include only the “Hot spots” window in the screenshot.

(Pressed it 55 times)

Name	Self Time (CPU)	Total Time (CPU)	Invocations
FileAccess.loadFile (String)	46.8 ms (75.6%)	46.8 ms (38.5%)	55
MainPanel.load (java.util.ArrayList)	15.0 ms (24.4%)	14.0 ms (11.6%)	55
Cell.setAlive (boolean)	0.0 ms (0%)	0.0 ms (0%)	2,750
Cell.resetBeenAlive ()	0.0 ms (0%)	0.0 ms (0%)	1,375
LoadButton\$LoadButtonListener.actionPerformed (java.awt.event.ActionEvent)	0.0 ms (0%)	60.9 ms (50%)	55
MainPanel.debugPrint ()	0.0 ms (0%)	0.0 ms (0%)	55
MainPanel.displayIteration (boolean[])	0.0 ms (0%)	0.0 ms (0%)	55

2. Optimized Feature 2

- Write the name of the feature optimized (the label on the button)
“Run Continuous”
- Write the name(s) of the method(s) you refactored to optimize this feature
iterateCell(), calculateNextIteration()
- Insert a screenshot of VisualVM CPU profiling **after** optimizing Feature 2. Please show only the profile for Feature 2 (do not invoke Feature 1 while profiling). Please include only the “Hot spots” window in the screenshot, as before.

Name	Self Time (CPU)	Total Time (CPU)	Invocations
Cell.setAlive (boolean)	4.50 ms (100%)	4.50 ms (100%)	123,400
Cell.getAlive ()	0.0 ms (0%)	0.0 ms (0%)	617,000
RunContinuousButton\$GameRunnable.run ()	0.0 ms (0%)	0.0 ms (0%)	1
RunContinuousButton\$RunContinuousButtonListener.actionPerformed (java.awt.event.ActionEvent)	0.0 ms (0%)	0.0 ms (0%)	1
MainPanel.calculateNextIteration ()	0.0 ms (0%)	0.0 ms (0%)	2,468
MainPanel.displayIteration (boolean[])	0.0 ms (0%)	0.0 ms (0%)	2,468
MainPanel.getNumNeighbors (int, int)	0.0 ms (0%)	0.0 ms (0%)	61,700
MainPanel.iterateCell (int, int)	0.0 ms (0%)	0.0 ms (0%)	61,700
MainPanel.backup ()	0.0 ms (0%)	0.0 ms (0%)	2,468
MainPanel.runContinuous ()	0.0 ms (0%)	0.0 ms (0%)	1