**CS 273 Final Project**

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**Project Name: Game of Life**

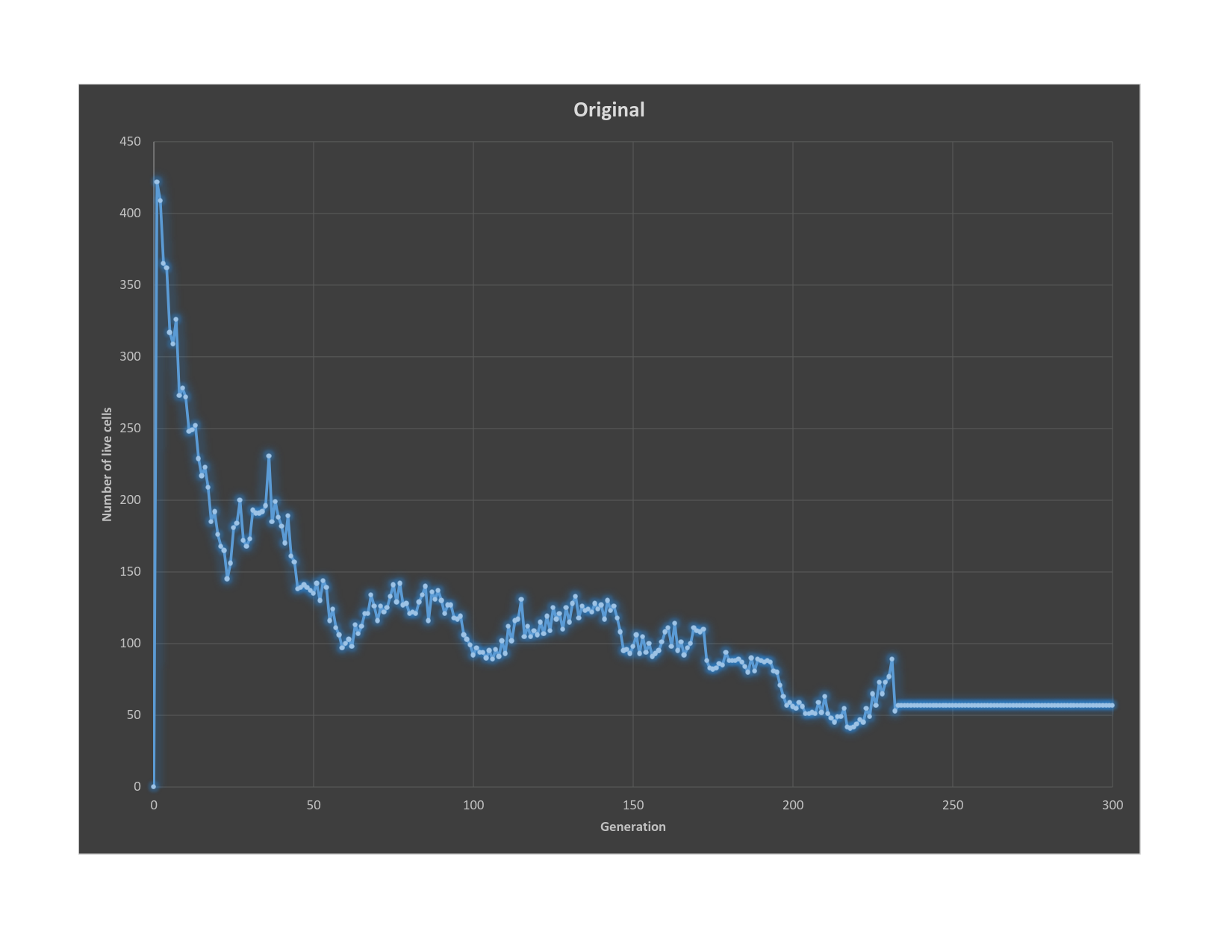
Final Summary

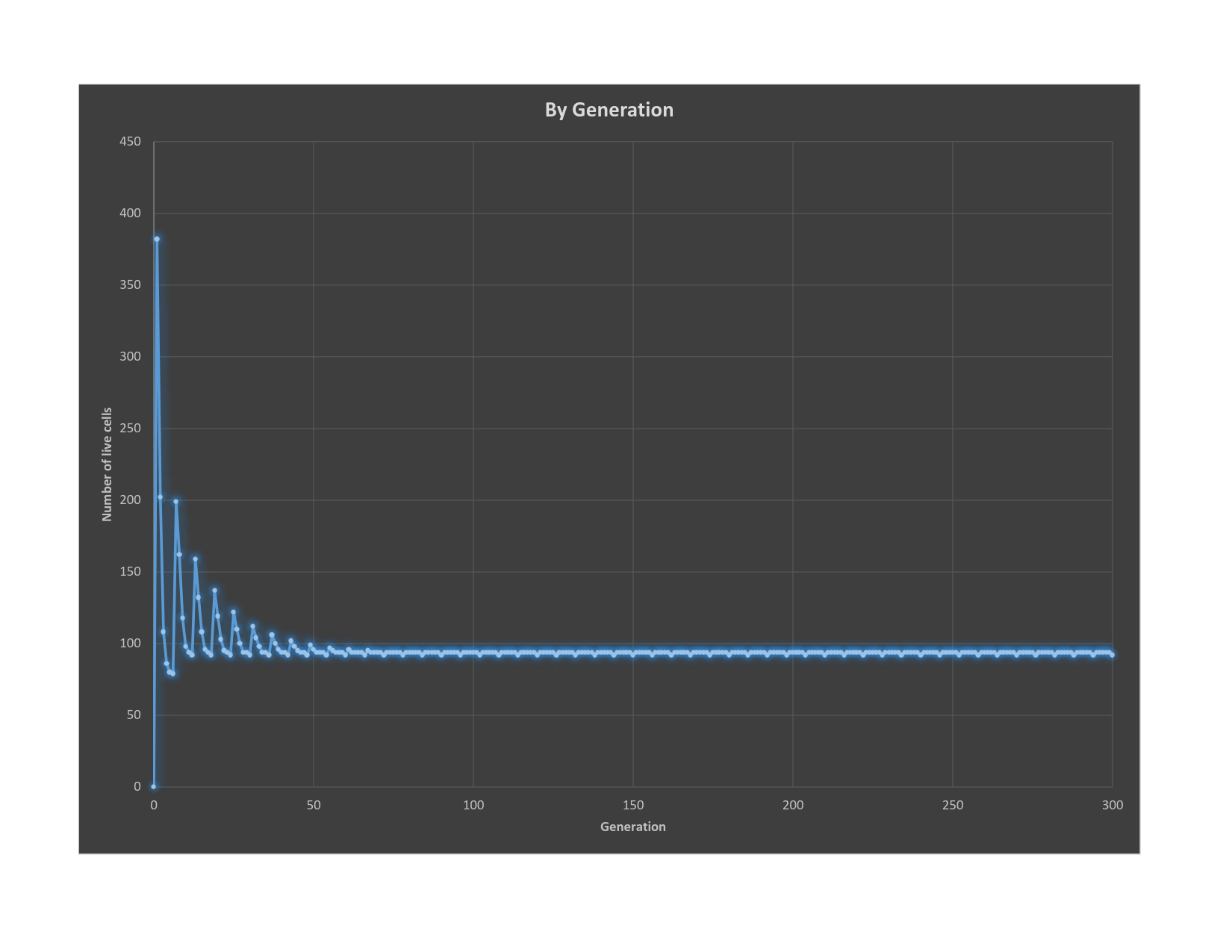
As we explored the simulation deeper, we found many interesting patterns we could make depending on the initial state of the cells. It was more fun than we expected and although we wanted to include many patterns in the simulation, we stuck with just some of them.

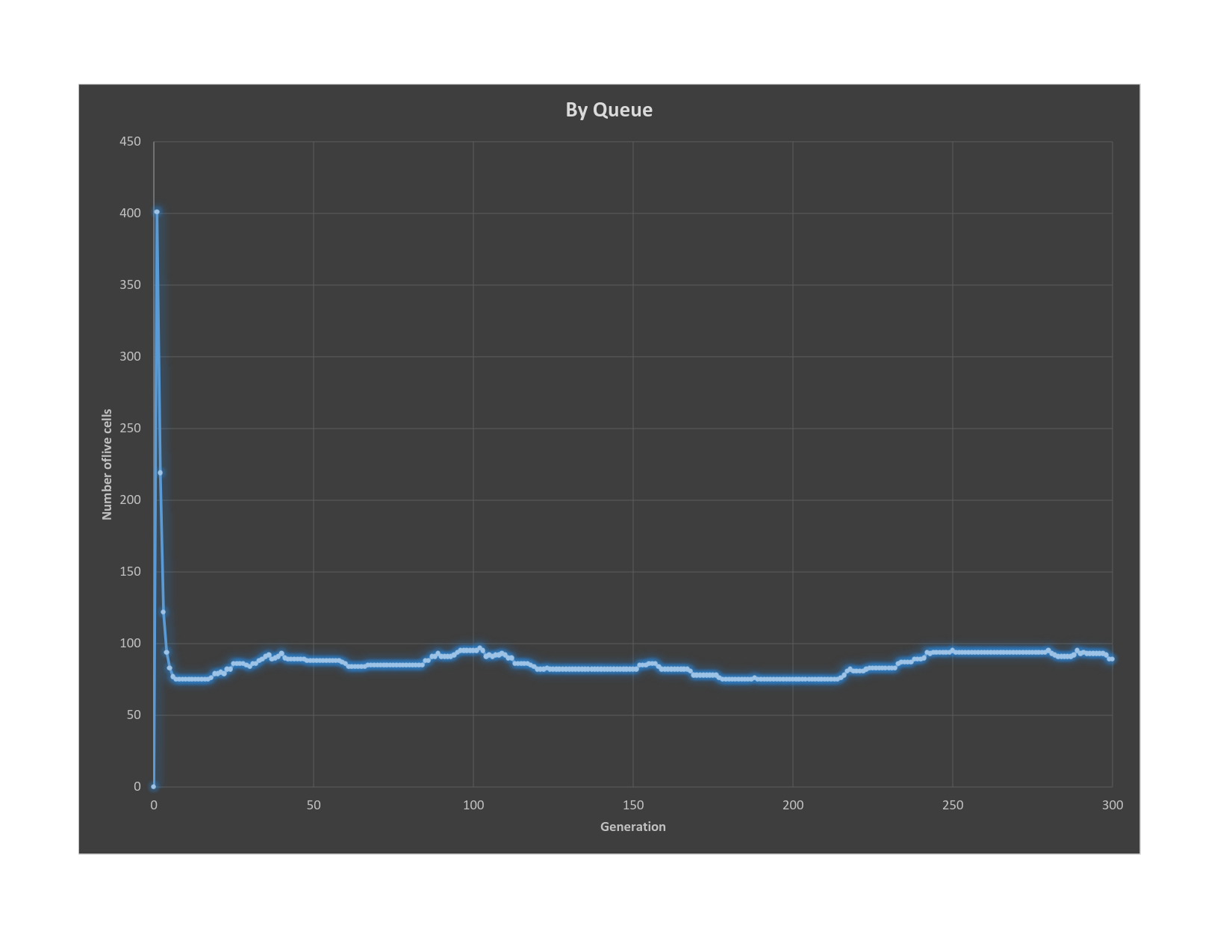
Graphs:

If we fill the initial state with random live cell positions, the following difference can be observed in 3 different simulations:

* The original Game of Life rules:
  + The count of live cells drops erratically. At some point, it reaches a certain shape that keeps the count constant.
* ByGeneration:
  + The count drops exponentially and reaches the stable state.
* ByQueue:
  + The count drops rapidly and becomes somewhat stable following a certain pattern.







Changes from initial design in final implementation:

* Added color to the cells
* Added mouse click on the start screen(for fun)
* Added total live cell counter in each generation to make graphs
* Display real-time stats
* Export data to excel sheet

Lessons learned:

* Teamwork
* Exporting data to excel
* Optimized clear screen
* The size of console matters (LOL)
* Mouse click in console
* Git
* Had fun with Game of Life