Conways Game Of Life (Java)

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I first came across Conway's Game Of Life at a coderetreat day.

We used Pair Programming and TDD to develop partial solutions over 60 min sessions, adding more constraints to develop thinking and collaboration.

This implementation is based on the goals of:

- Using no conditional or loop statements
- Functions no more than 5 lines in length

Implementation

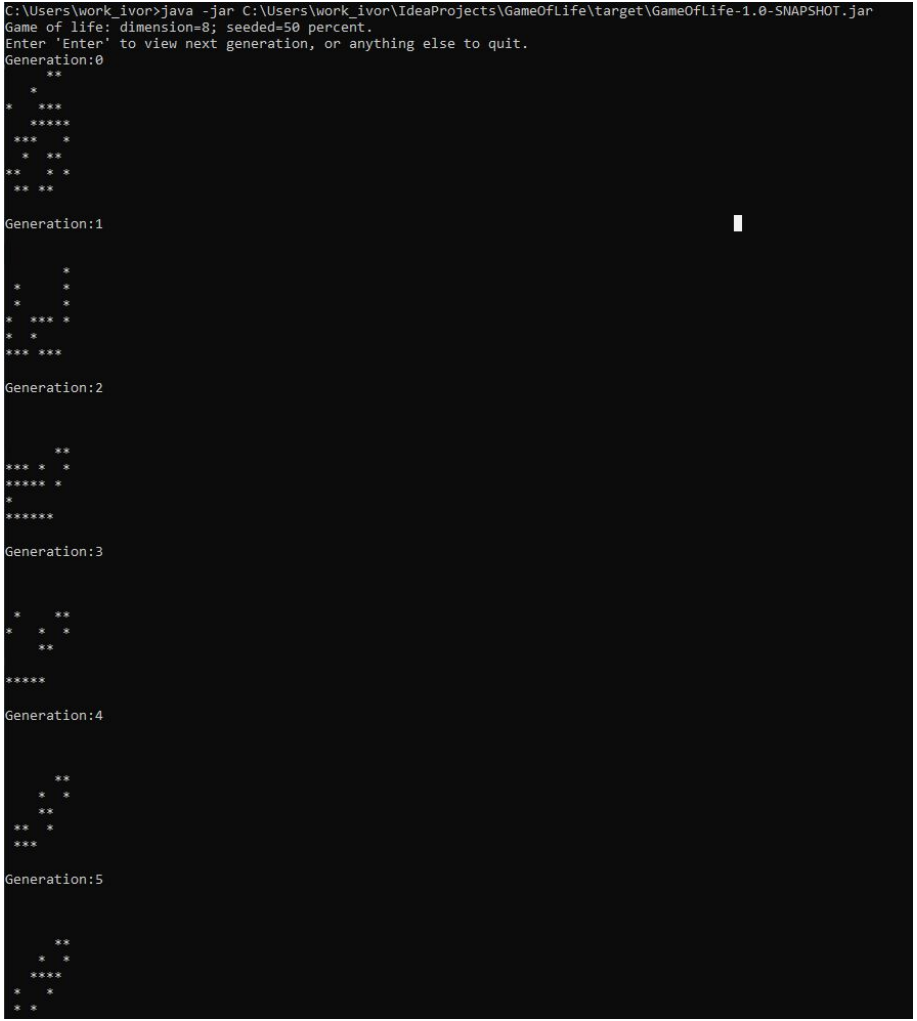
This implementation was based on some ideas discussed on the coderetreat day (**using Lambda and Functional Programming techniques to satisfy the additional constraints**) but is all my own work. I used the exercise to understand aspects of these Java language features. The spirit of TDD was applied (i.e. develop tests before functional code). I wasn't able to satisfy the no loops and conditional statement everywhere :-). There is 100% code coverage for core classes (but not the controller).

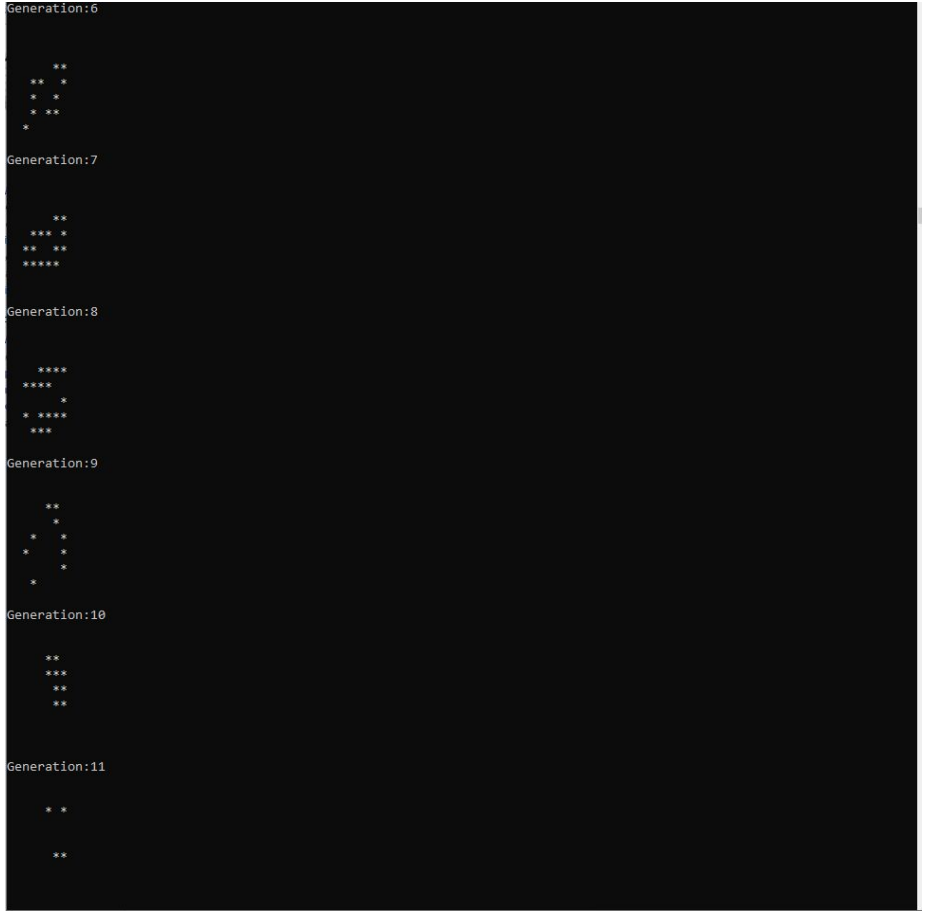
Key components are:

- **Cell**: abstract class that is aware of its coordinates
- **LivingCell/DeadCell**: subclasses of Cell and implements their rules for living and dying, and implement equals() and hashcode()
- **Universe**: responsible for creating cells and triggering their regeneration
- **GameOfLife**: controller; interacts with user.

Game runs as a console application.. Follow the instructions (see next)

Github repo: https://github.com/elendil-src/GameOfLife-Java


C:\Users\work_ivor>java -jar C:\Users\work_ivor\IdeaProjects\GameOfLife\target\GameOfLife-1.0-SNAPSHOT.jar
Game of life: dimension=8; seeded=50 percent.
Enter 'Enter' to view next generation, or anything else to quit.
Generation:0
Generation:1
Generation:2
Generation:3
Generation:4
Generation:5


Generation:6
Generation:7
Generation:8
Generation:9
Generation:10
Generation:11