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CS 490 Project 4 Cellular Automata

My submission consists of two individual JAVA programs. CA1D is for the 1D CA and CA2D is for the 2D CA.

The code was written in and run using NetBeans.

As noted in the program headers, 0 is ~ and 1 is ^ and this can be changed in print() functions.

1D Cellular Automata:

Each of the 5 parts can be found in the CA1D.txt output file by searching for "Part 1", "Part 2" and so on and each part is separated by

an ascii dog.

The initial state for each "Part" is identified by "CA_GENERATION: 0"

See CA1Dresults.pdf.

2D Cellular Automata for Game of Life:

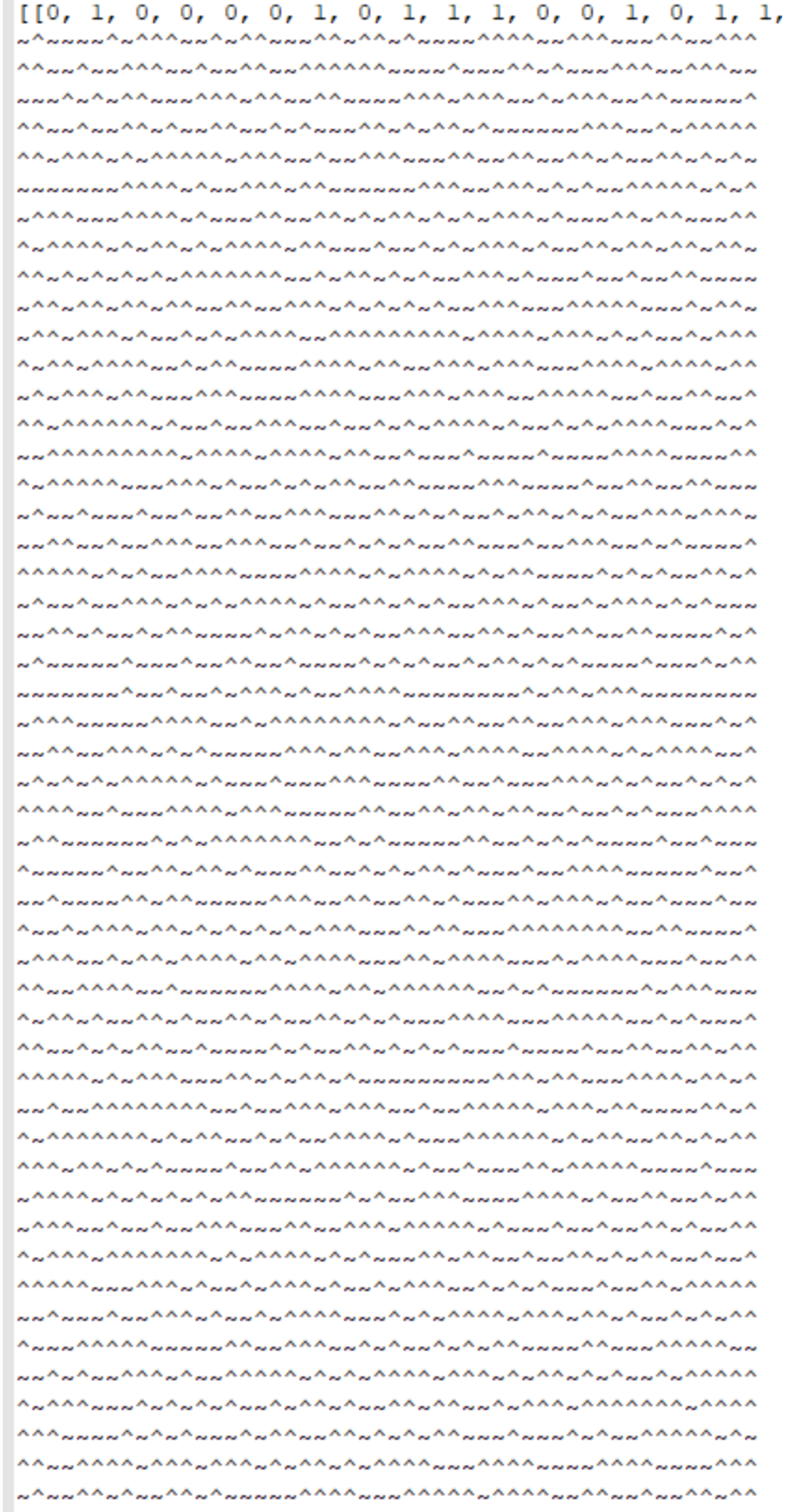
Each of the 5 runs can be found in the CA2D.txt output file by searching for "Run 1", "Run 2" and so on and each part is separated by

an ascii dog.

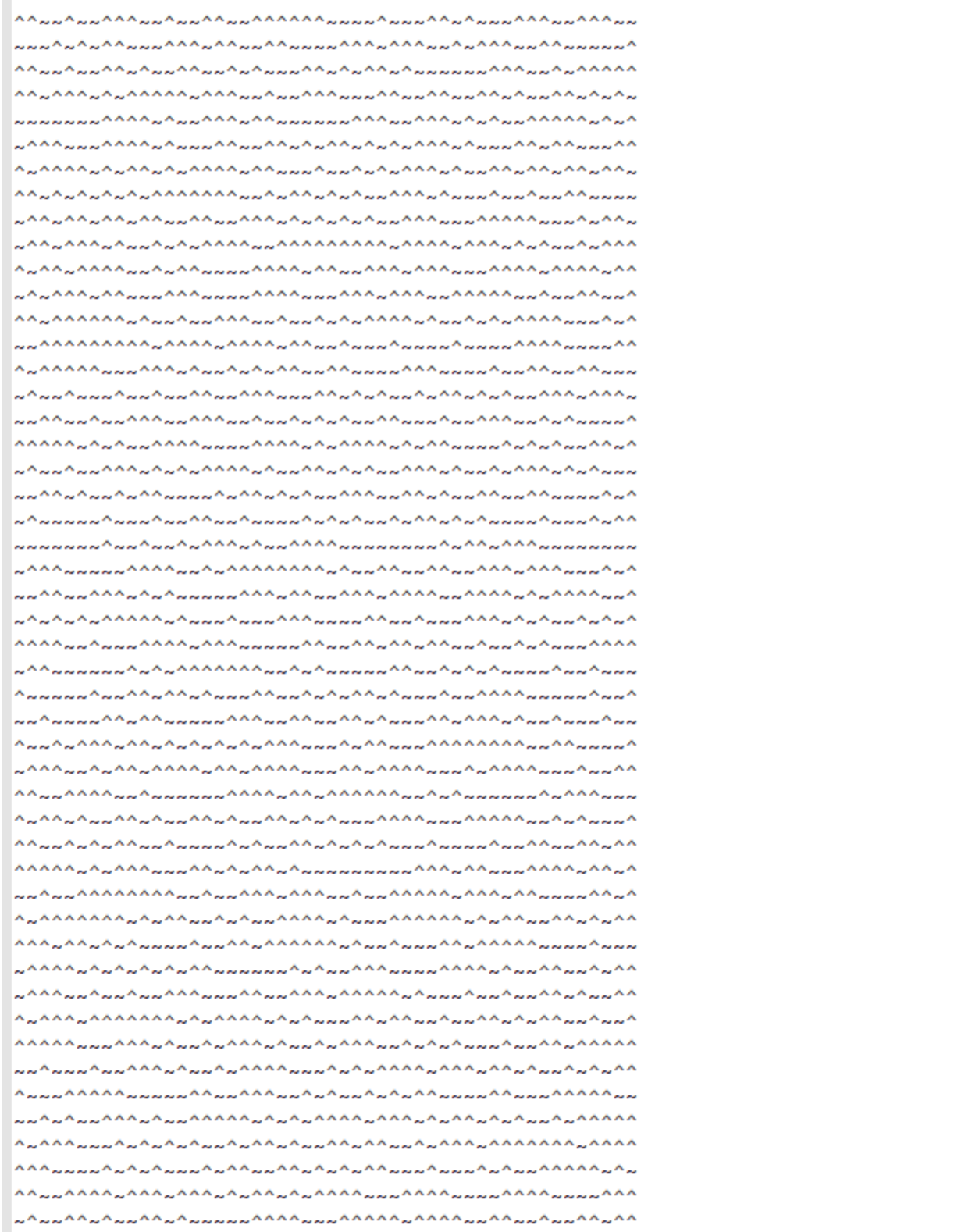
The initial state for each "Run" is identified by "CA_GENERATION: 0"

Screenshots:

```
Run 1
CA_GENERATION: 0 CA_M: 50 CA_N: 50 CA_GENERATIONS: 1
[[0, 1, 0, 0, 0, 0, 1, 0, 1, 1, 1, 0, 0, 1, 0, 1, 1,
```

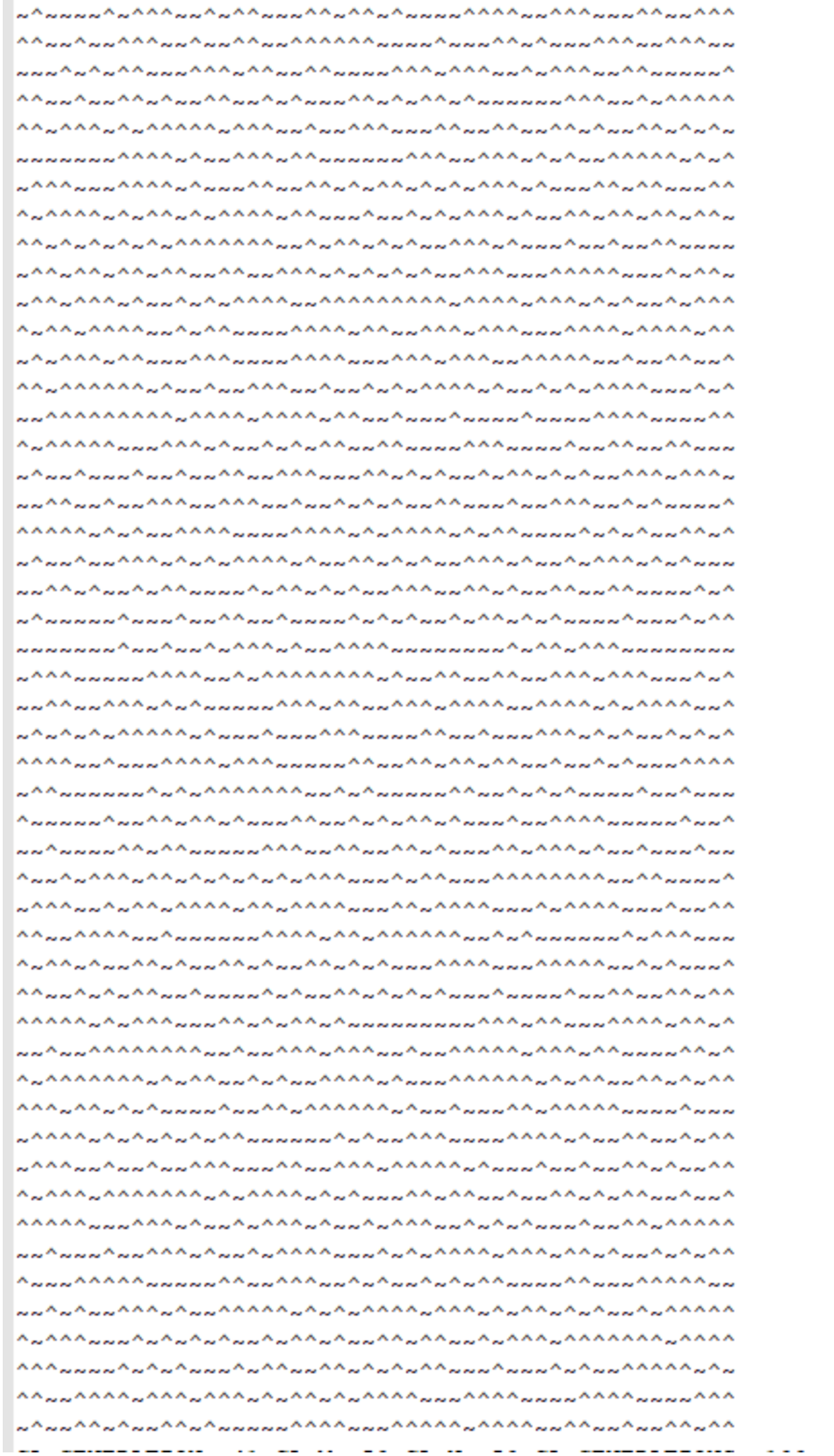


```
CA_GENERATION: 1 CA_M: 50 CA_N: 50 CA_GENERATIONS: 100
[[0, 1, 0, 0, 0, 0, 1, 0, 1, 1, 1, 0, 0, 1, 0, 1, 1, 0,
```



```
CA_GENERATION: 20 CA_M: 50 CA_N: 50 CA_GENERATIONS: 100
[[0, 1, 0, 0, 0, 0, 1, 0, 1, 1, 1, 0, 0, 1, 0, 1, 1, 0, 0
```

```
CA_GENERATION: 40 CA_M: 50 CA_N: 50 CA_GENERATIONS: 100
[[0, 1, 0, 0, 0, 0, 1, 0, 1, 1, 1, 0, 0, 1, 0, 1, 1, 0, 0
```



```
CA_GENERATION: 60 CA_M: 50 CA_N: 50 CA_GENERATIONS: 100
[[0, 1, 0, 0, 0, 0, 1, 0, 1, 1, 1, 0, 0, 1, 0, 1, 1, 0, 0
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```

```
CA_GENERATION: 80 CA_M: 50 CA_N: 50 CA_GENERATIONS: 100
[[0, 1, 0, 0, 0, 0, 1, 0, 1, 1, 1, 0, 0, 1, 0, 1, 1, 0, 0,
```

```
CA_GENERATION: 100 CA_M: 50 CA_N: 50 CA_GENERATIONS: 100
[[0, 1, 0, 0, 0, 0, 1, 0, 1, 1, 1, 0, 0, 1, 0, 1, 1, 0, 0, 0, 1, 1, (
```