

BONUS HOMEWORK #1

(Bonus 2 points) Some previous year's homework was to implement Conway's game of Life. You can find the rules of this game, e.g., here:

https://en.wikipedia.org/wiki/Conway%27s_Game_of_Life.

One of the submitted solutions (with minor modifications) looked like this:

<https://kubokovac.eu/ds/du/conway.cpp>

You can compile the source code using

```
g++ -Wall -Werror -pedantic -O3 -march=native conway.cpp -o conway
```

Challenge: Try to optimize and speed up the program as much as possible. Do not change the algorithm (e.g., don't invent any new data structures for representing the grid, keep the 2D array) – we want the same general procedure, just a better/improved/faster implementation. This is an exercise in optimization.

Make sure you test your implementation well. Describe the changes you've made and what speed-up they achieved. The number of points awarded will be proportional to the achieved speed-up (on my computer).