

# #CodingDojo @ Hanoi Kata: Game of Life

Serge Stinckwich & Dương “Yang” Hà Nguyễn

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- 1 Introduction
- 2 Problem Description
- 3 Solving with Randori

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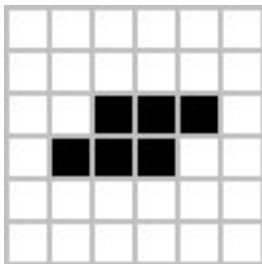
- A board game!
- Zero-player
- → No winners
- → No fightings
- → Neat and safe!!!
- Very simple rules.

# The Board

- 2-dimensional grid of cells.

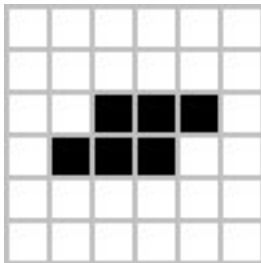
# The Board

- 2-dimensional grid of cells.
- Like this:



# The Board

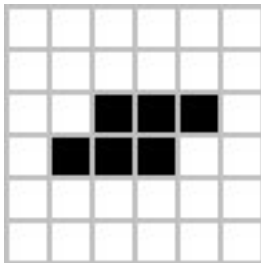
- 2-dimensional grid of cells.
- Like this:



- See the black and white cells?

# The Board

- 2-dimensional grid of cells.
- Like this:



- See the black and white cells?
- Black cells are alive ones.
- White cells are dead ones.

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- Any living cell with exactly 2 or 3 living neighbours lives on to the next generation.

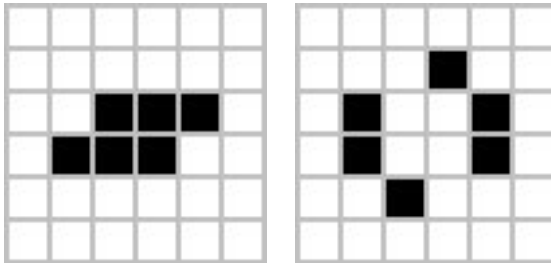


# Game Rules

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- Any living cell with more than 3 living neighbours dies (caused by overcrowding).
- Any living cell with exactly 2 or 3 living neighbours lives on to the next generation.
- Any dead cell with exactly 3 living neighbours comes back to live.

# Like this

After one step, the board would transform like this (left to right):



# The Problem

Giving a board with finite dimensions. Find the next transformation of the board after one step.

# Data

## Input

- 1<sup>st</sup> row: Number of rows and columns, respectively.
- From 2<sup>nd</sup> row: the board, “\*” denotes living cells, “.” denotes dead cells.

Like this:

```

4 8
.....
....*...
...**...
.....
  
```

## Output

The result board.

Like this:

```

.....
...**...
...**...
.....
  
```

# Solving Game of Life with Randori

- Writing tests first.

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# Solving Game of Life with Randori

- Writing tests first.
- Thinking (critically).
- Being a pilot/co-pilot and getting help.
- Don't forget to have fun!!!



# Let's do it!!!

# Thank you for your attention!