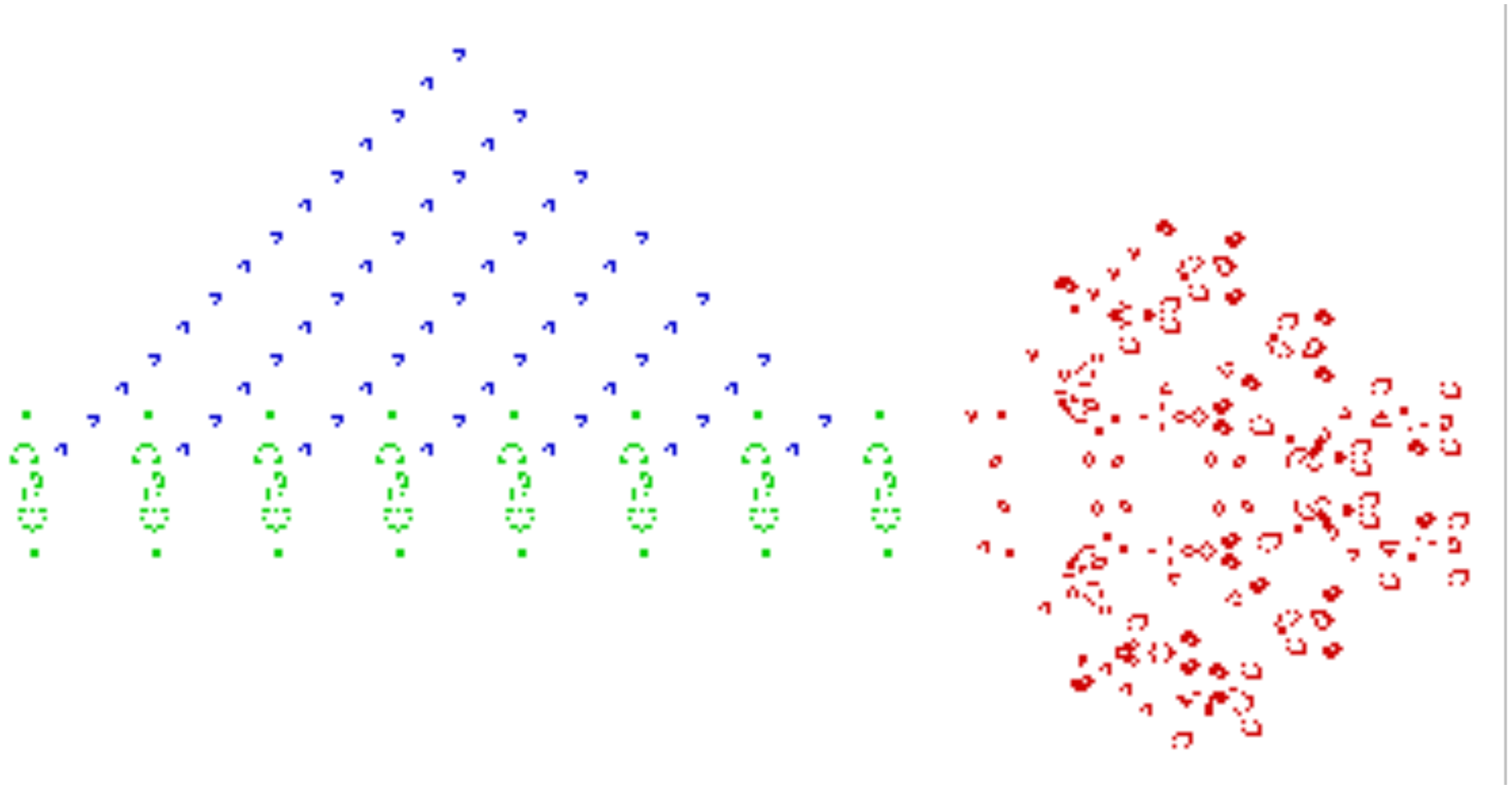
# Seattle.rb Workshop

Have laptop, will code!



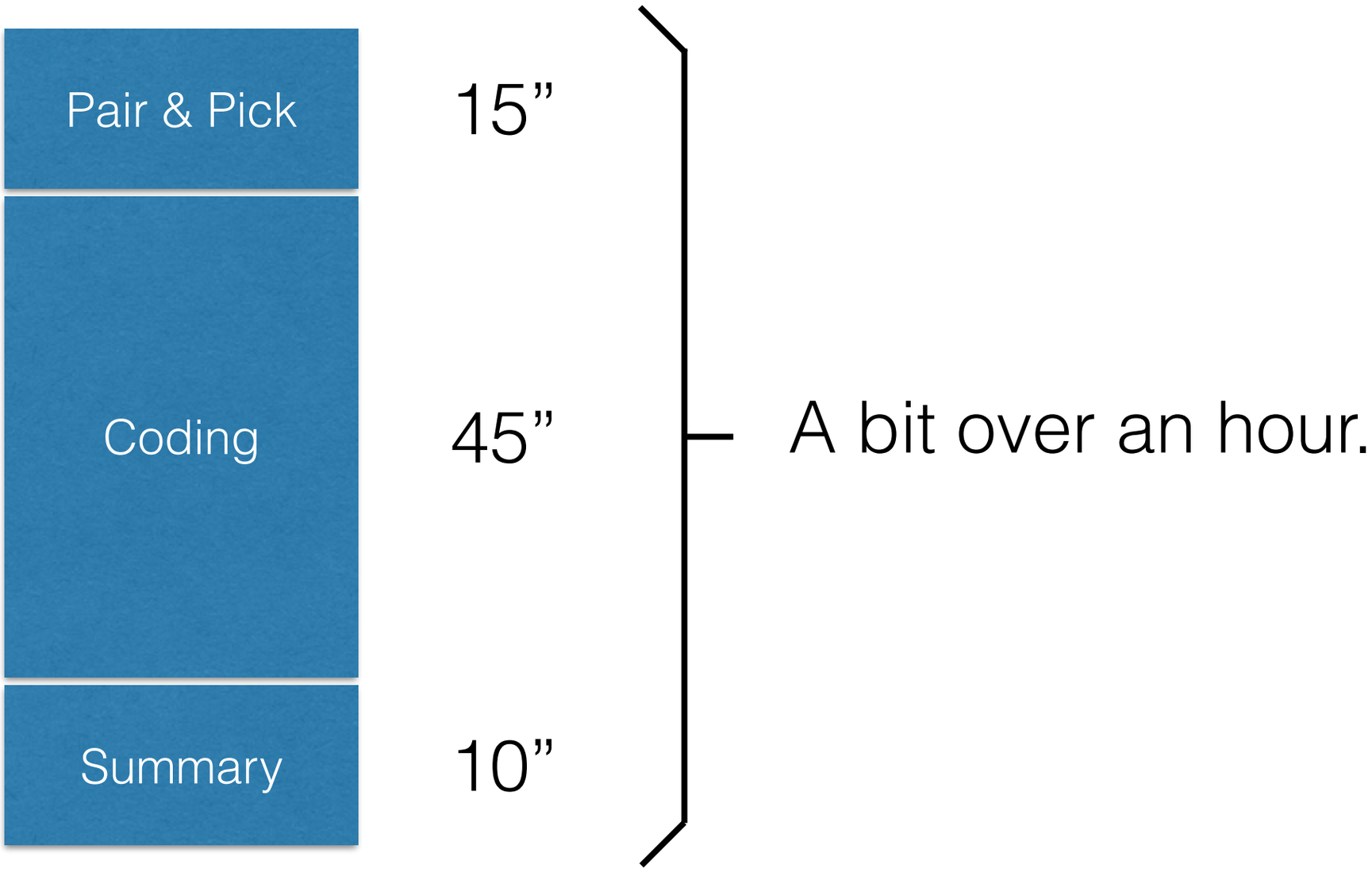
March 2015

# What?

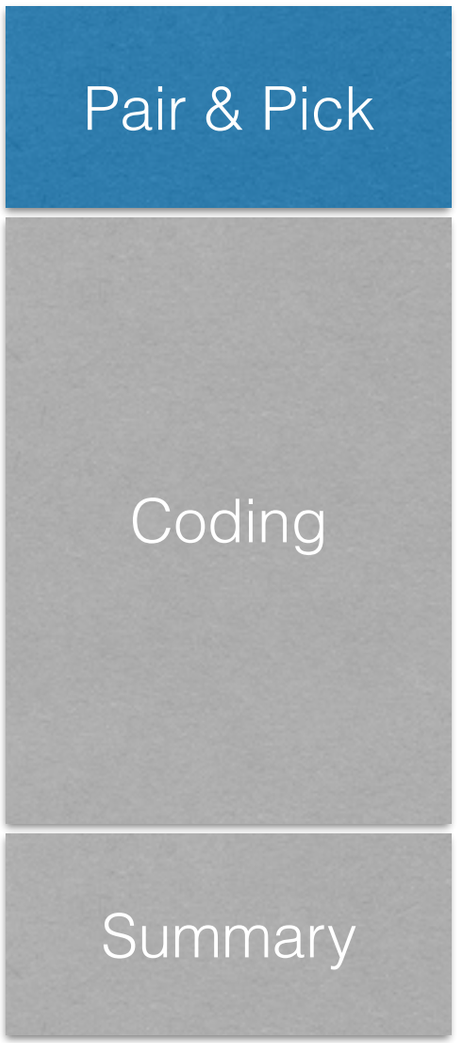
Code a problem together

to practice and learn.

# How long?



# How will it work?

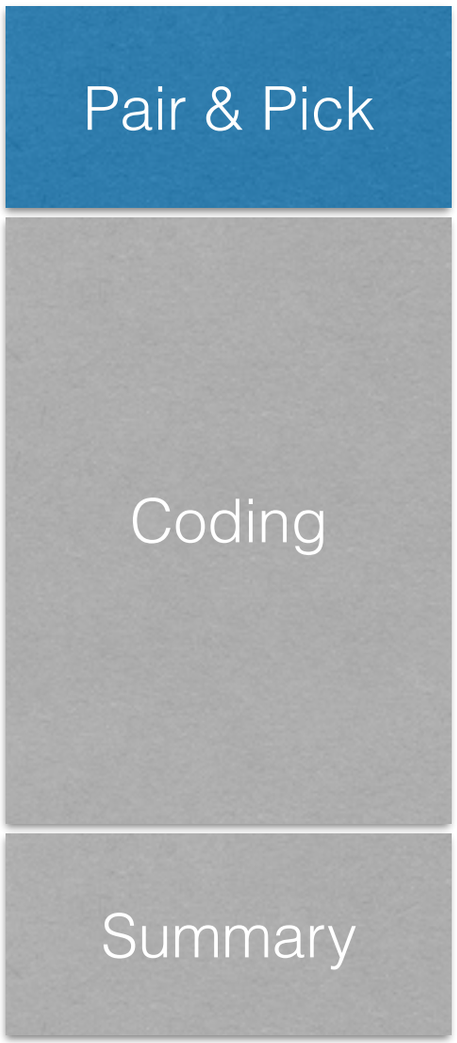



**Step 1: Pair Up!**

By experience level.

Yet totally flexible.

# How will it work?




**Step 2: Pick your poison!**

The exercise is to recode…

…a problem you know…

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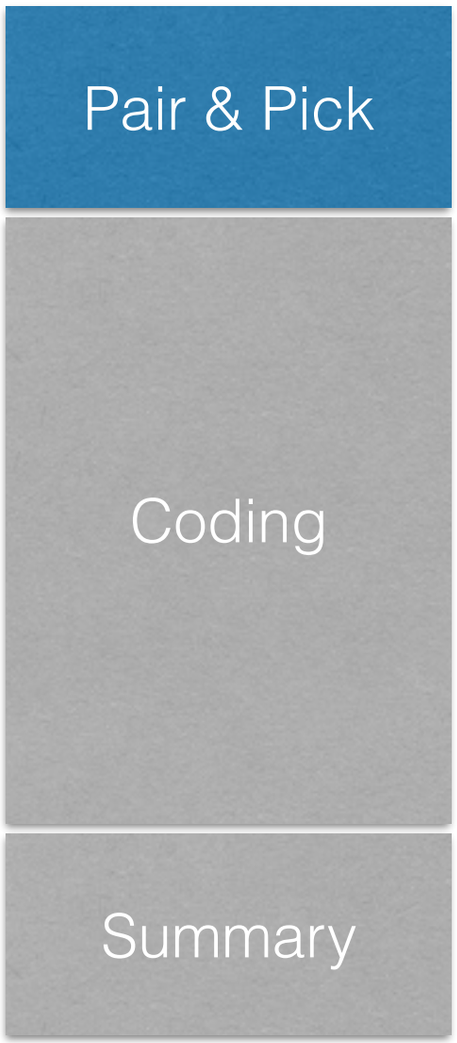


**Step 2: Pick your poison!**

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…with added constraint/s

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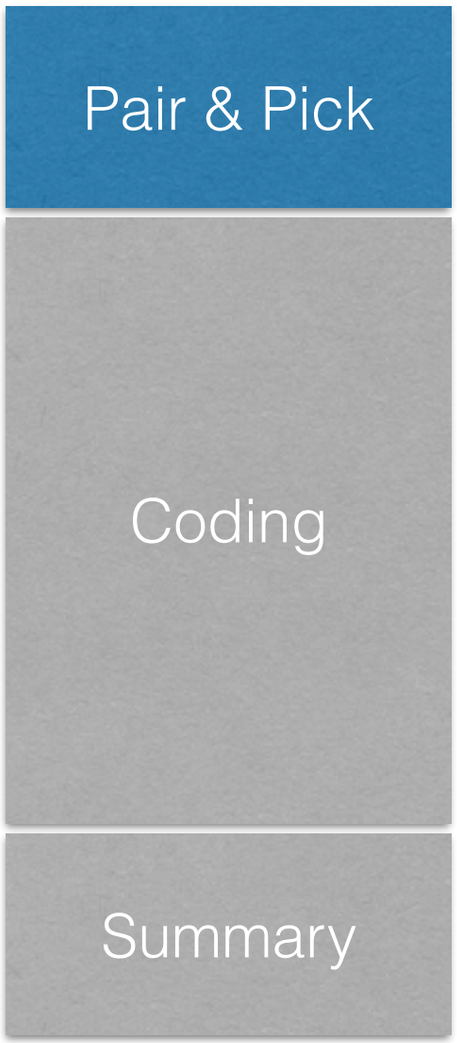



**Step 2: Pick your poison!**

The exercise is to recode…

…a problem you know…

…with added constraint/s

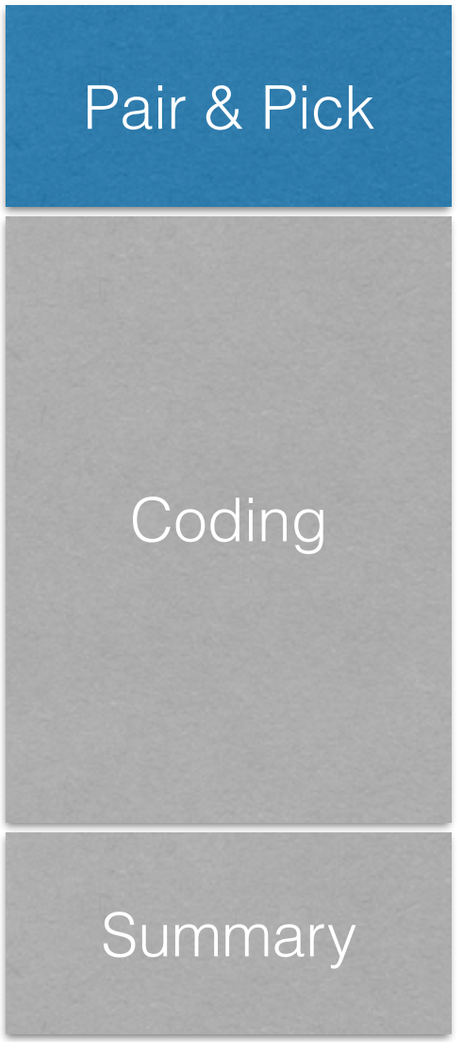
…randomized!!

# Wheel of Misfortune


Example Constraints:

- mute ping pong
- no conditionals
- no primitives as I/O
- methods <= 3 lines
- no getter/setters
- no instance vars
- …and many more

# How will it work?

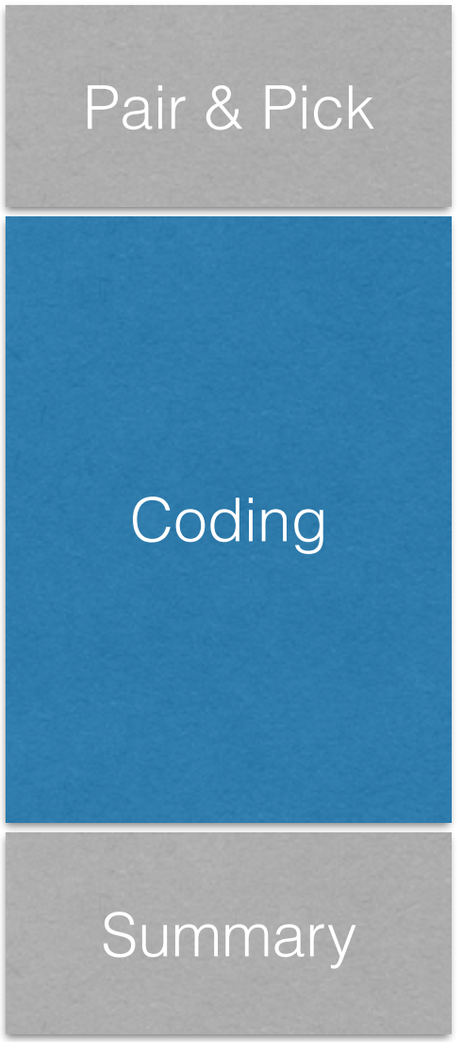



**Fear not!**

- You can pick your constraint,
- …or let fate decide (i.e. wheel!),
- …or be creative!

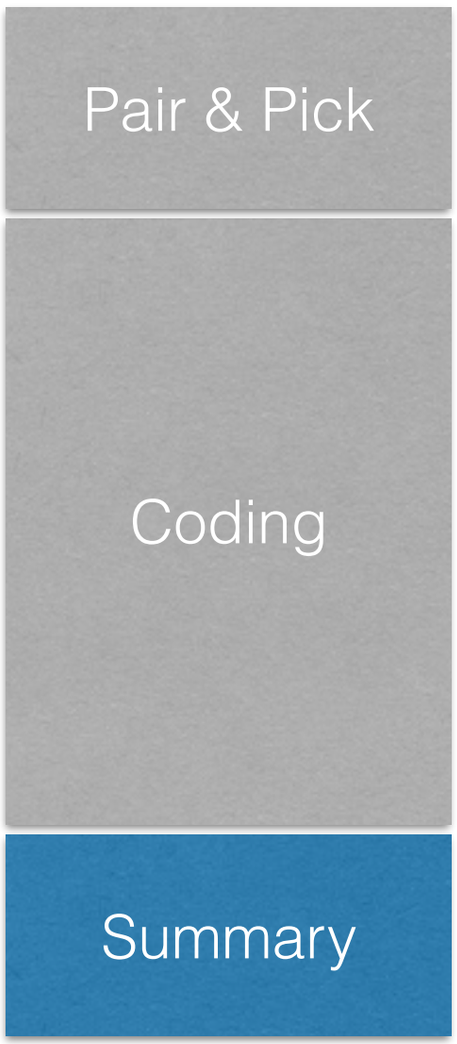
**You and your partner decide.**

# How will it work?




**Coding** for 45 minutes.

# How will it work?




**Summary**

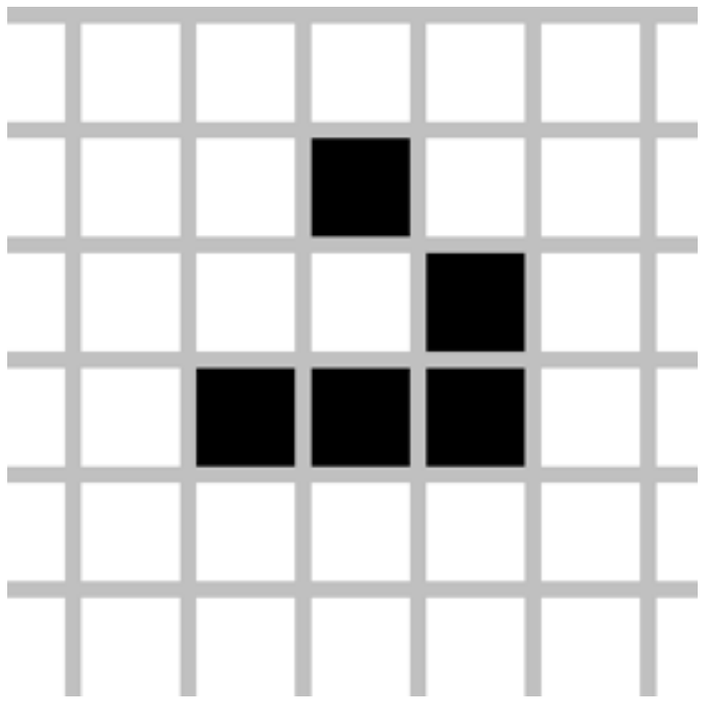
Volunteer basis.

Step up and share conclusions.

Show off cool code.

# Which problem?

**Conway's Game of Life (GoL):**



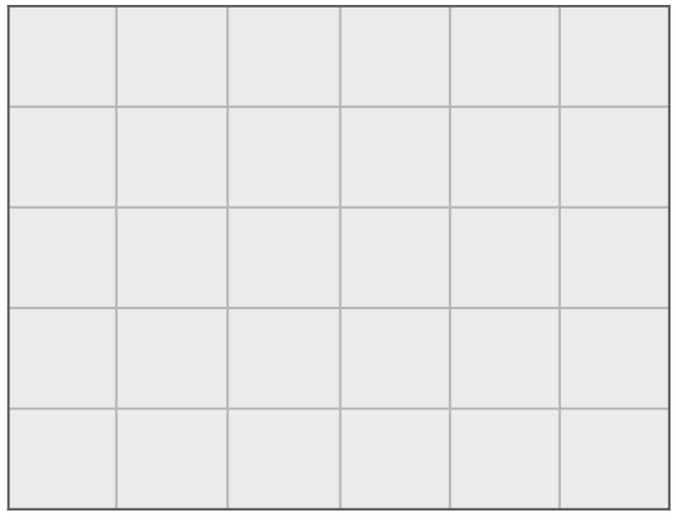
- Easy to code.

- Set up an initial pattern.

- Run program and system evolves.

# Game of Life

An infinite two-dimensional grid of square cells.



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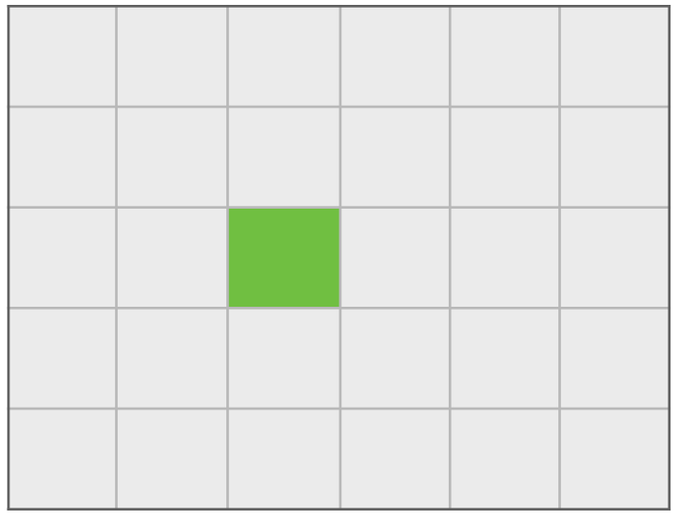
Each cell is in one of two possible states, dead or alive.



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An infinite two-dimensional grid of square cells.

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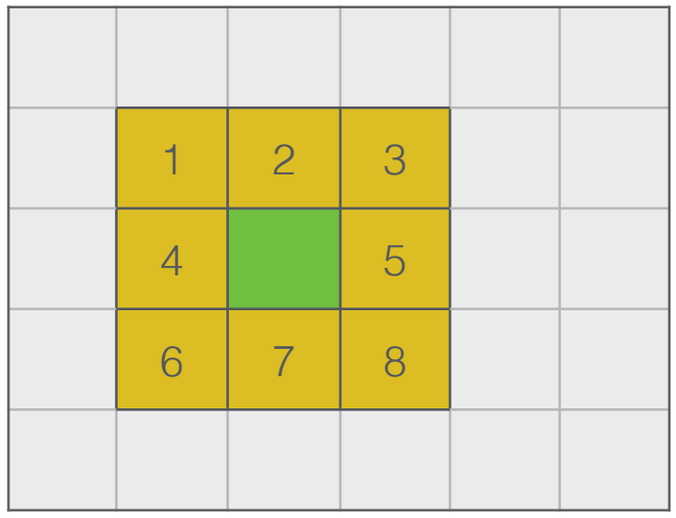
Every cell interacts with its eight neighbors.



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At each step in time, 2 rules decide which cells live and die.

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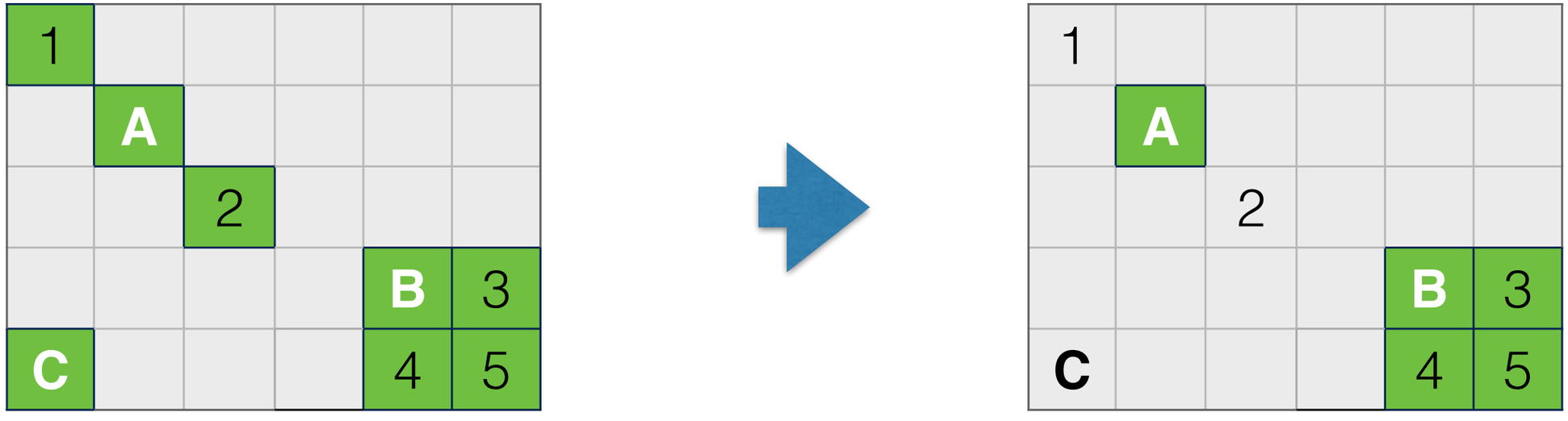
Every cell interacts with its eight neighbors.

At each step in time, 2 rules decide which cells live and die.

Births / deaths happen simultaneously in a tick of the clock.

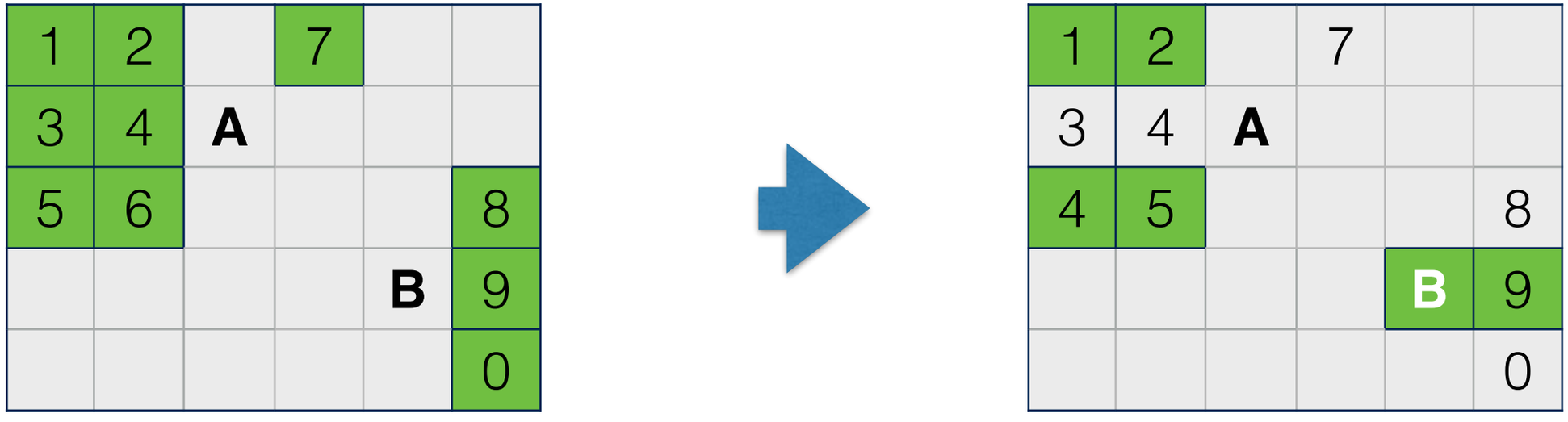
# Game of Life Rules

A living cell stays alive **if and only if**
it has 2 or 3 living neighbors.

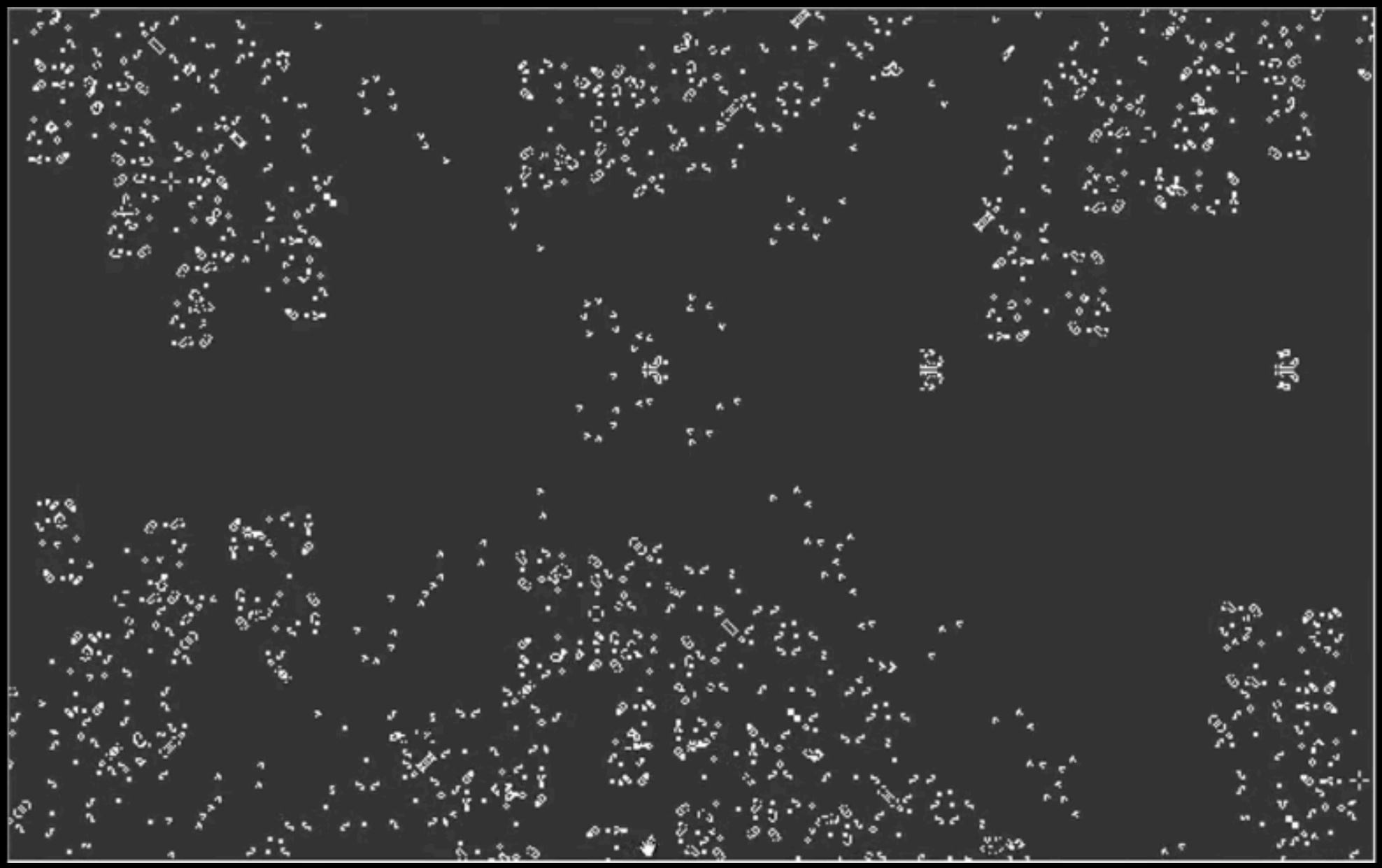


# Game of Life Rules

A dead cell with **exactly** 3 live neighbors becomes alive!



# It’s Alive!



# Fork it!

https://github.com/SeaRbSg/workshops

- Example code (with testing),
- visualization code from Ryan Davis,
- and resources (code, history, videos,…).

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