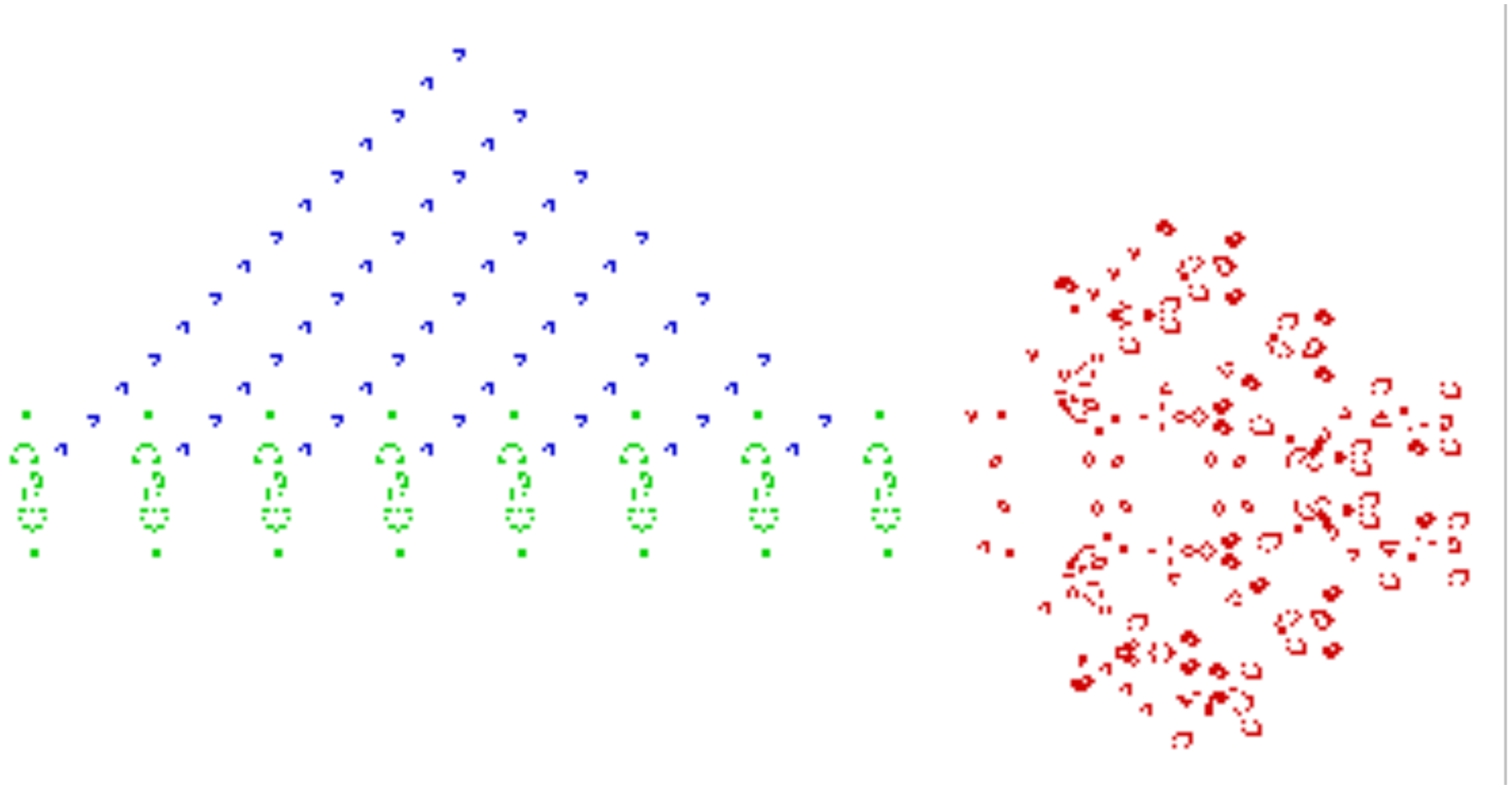
Seattle.rb Workshop

Have laptop, will code!



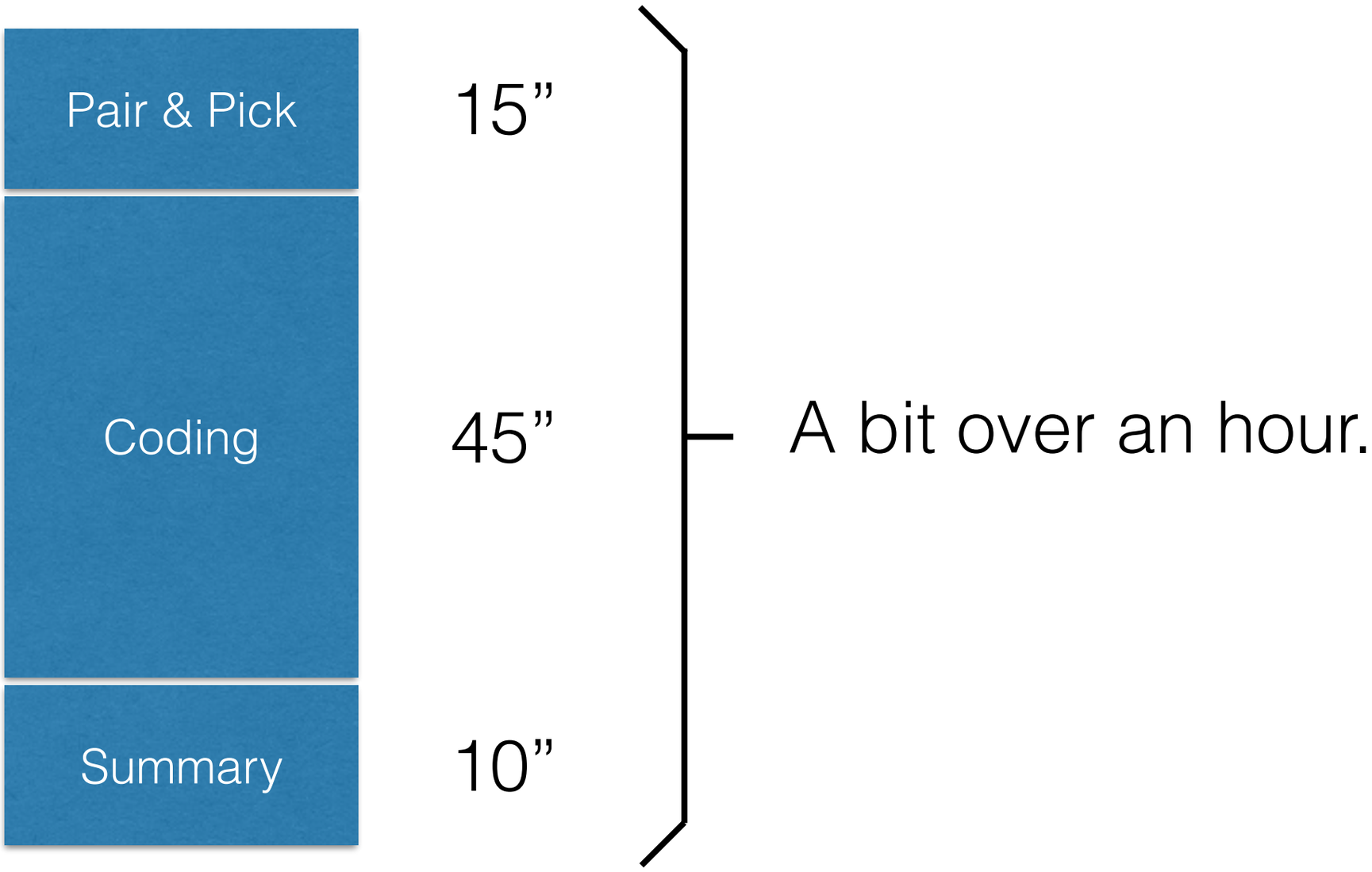
March 2015

What?

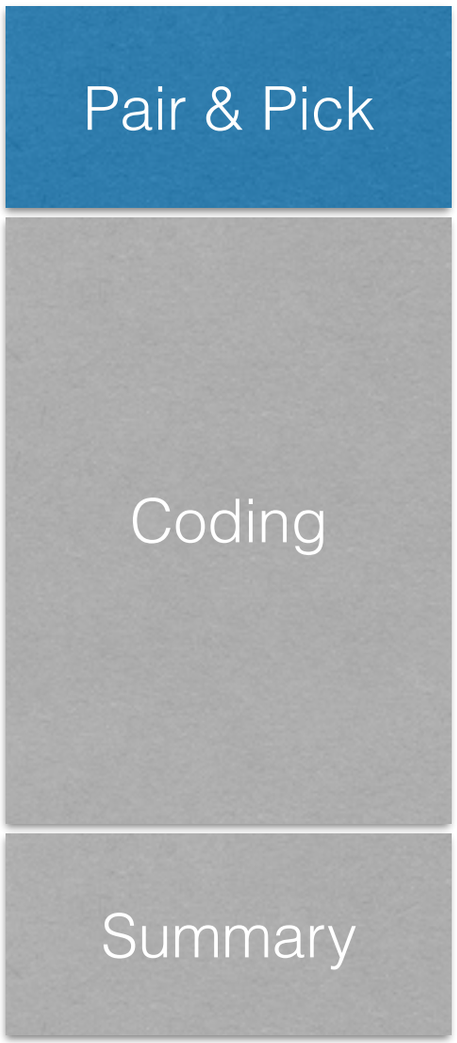
Code a problem together

to practice and learn.

How long?



How will it work?

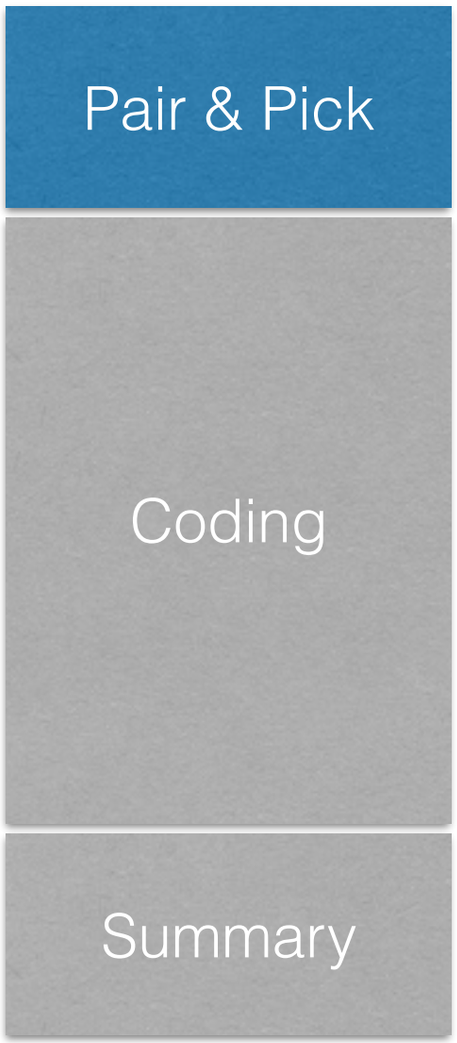


Step 1: Pair Up!

By experience level.

Yet totally flexible.

How will it work?

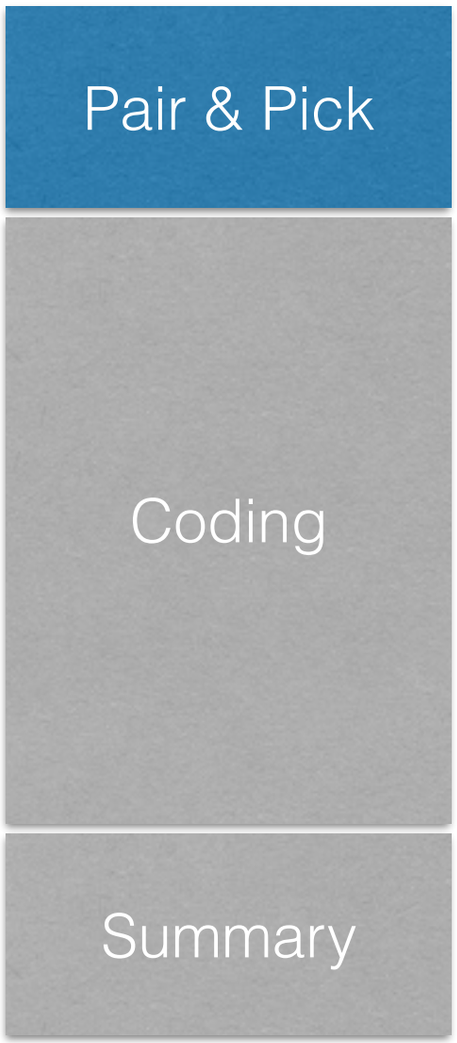


Step 2: Pick your poison!

The exercise is to recode…

…a problem you know…

How will it work?



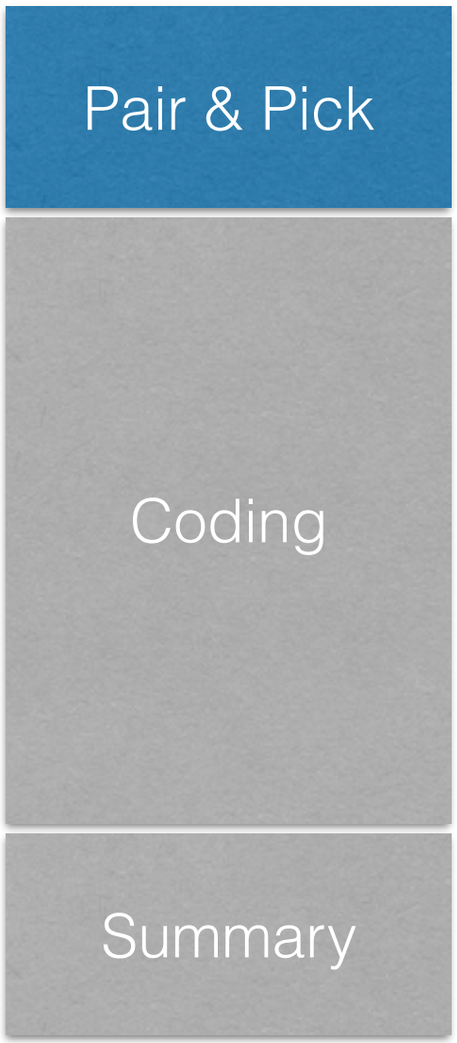
Step 2: Pick your poison!

The exercise is to recode…

…a problem you know…

…with added constraint/s

How will it work?



Step 2: Pick your poison!

The exercise is to recode…

…a problem you know…

…with added constraint/s

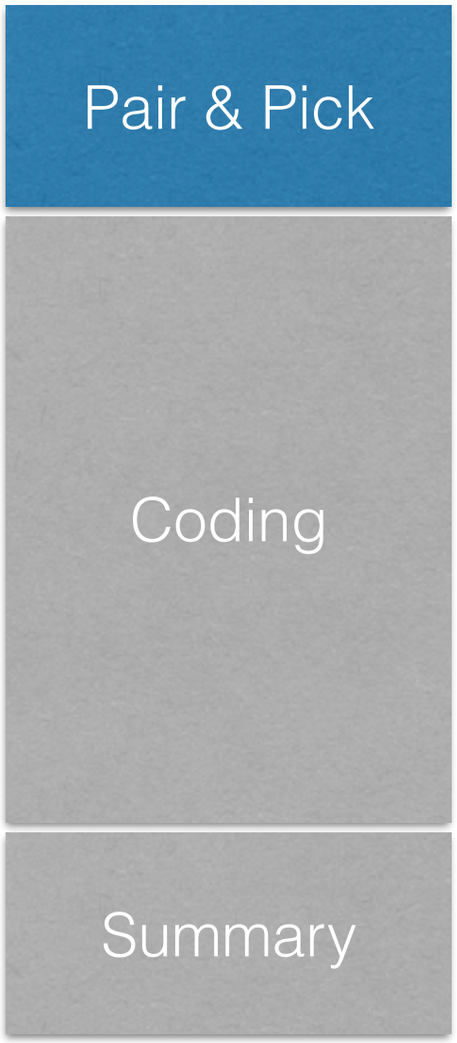
…randomized!!

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?

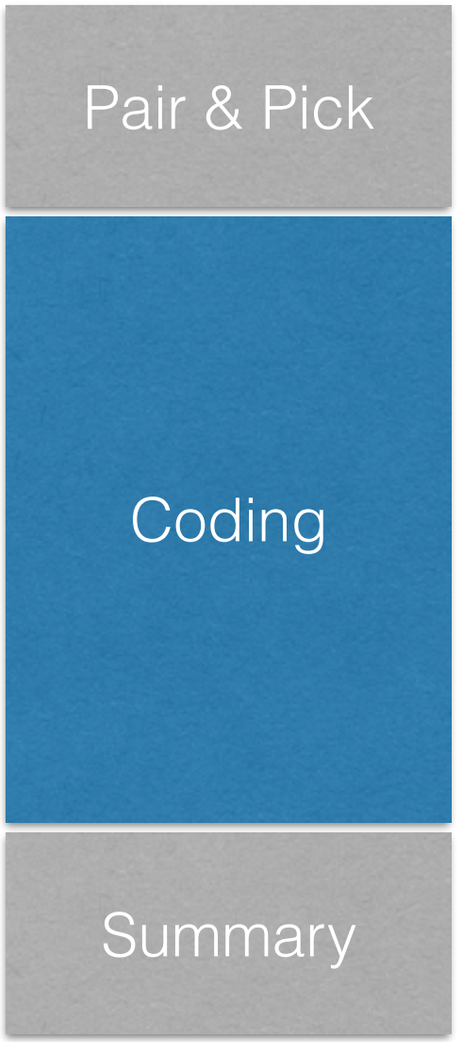


Fear not!

- You can pick your constraint,
- …or let fate decide (i.e. wheel!),
- …or come up with your own,
- …or even choose to code in Scheme!

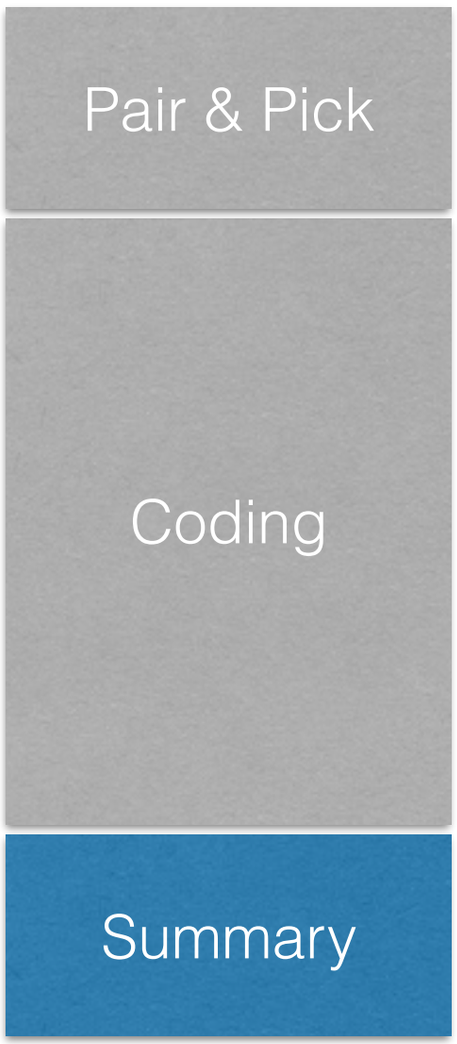
You and your partner decide.

How will it work?



Coding for 45 minutes.

How will it work?



Summary

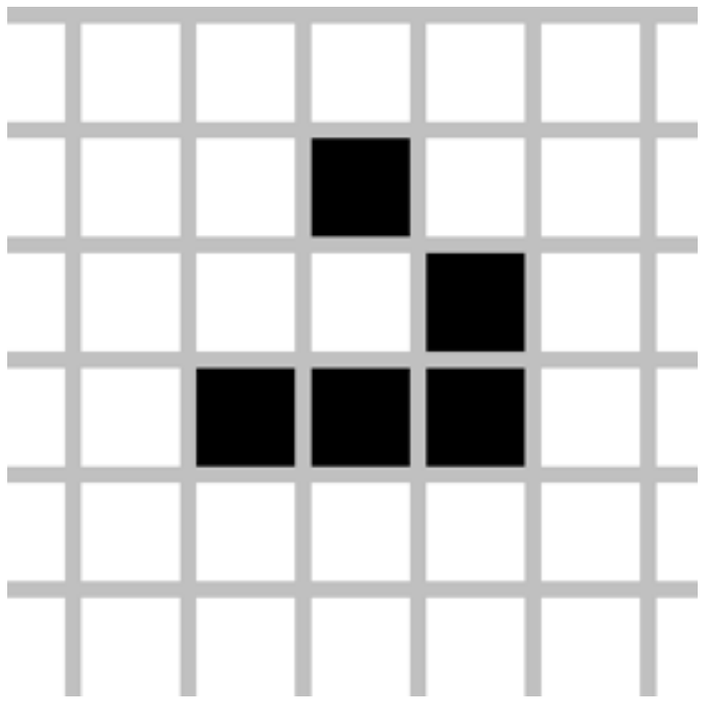
Volunteer basis.

Step up and share conclusions.

Show off cool code.

Which problem?

Conway's Game of Life (GoL):



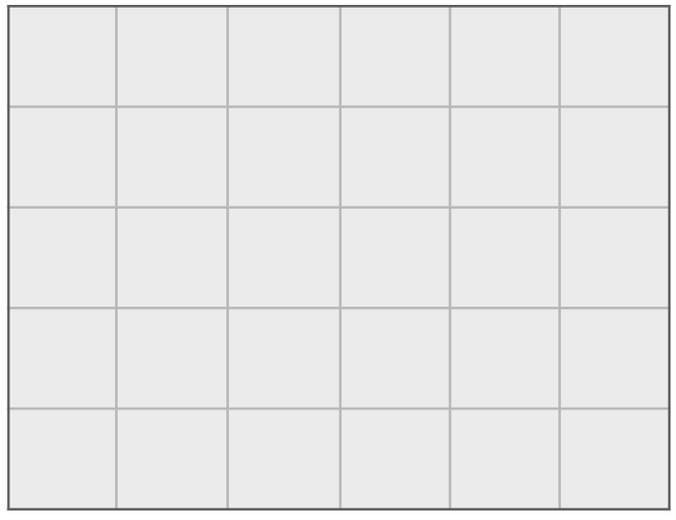
- Easy to code.

- Set up an initial pattern.

- Run program and system evolves.

Game of Life

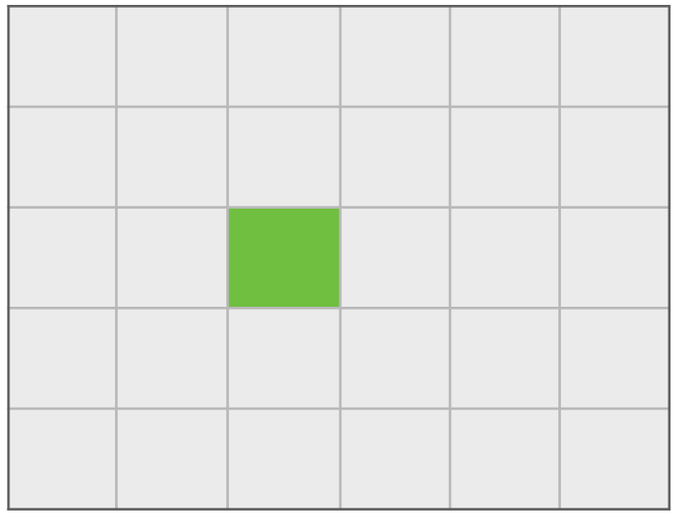
An infinite two-dimensional grid of square cells.



Game of Life

An infinite two-dimensional grid of square cells.

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

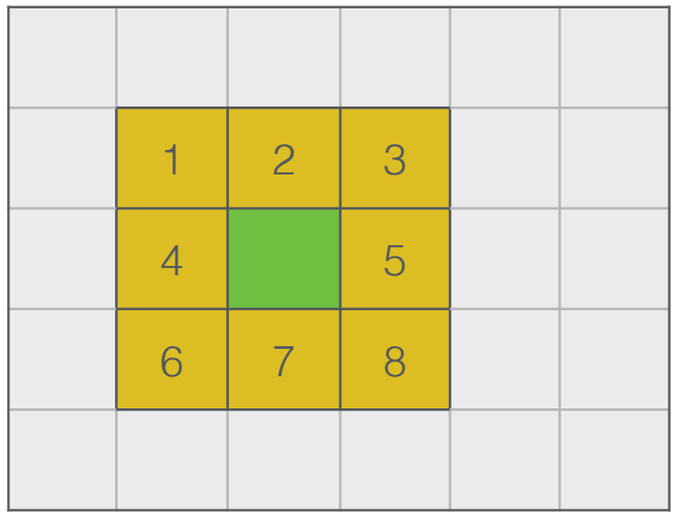


Game of Life

An infinite two-dimensional grid of square cells.

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

Every cell interacts with its eight neighbors.



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

Game of Life

An infinite two-dimensional grid of square cells.

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

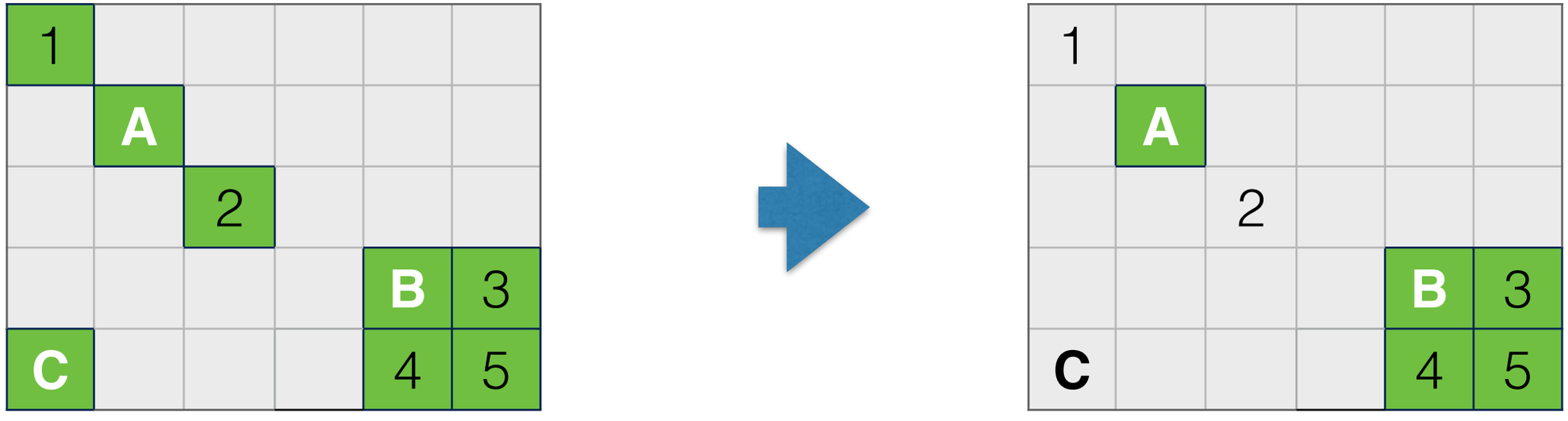
Every cell interacts with its eight neighbors.

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

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

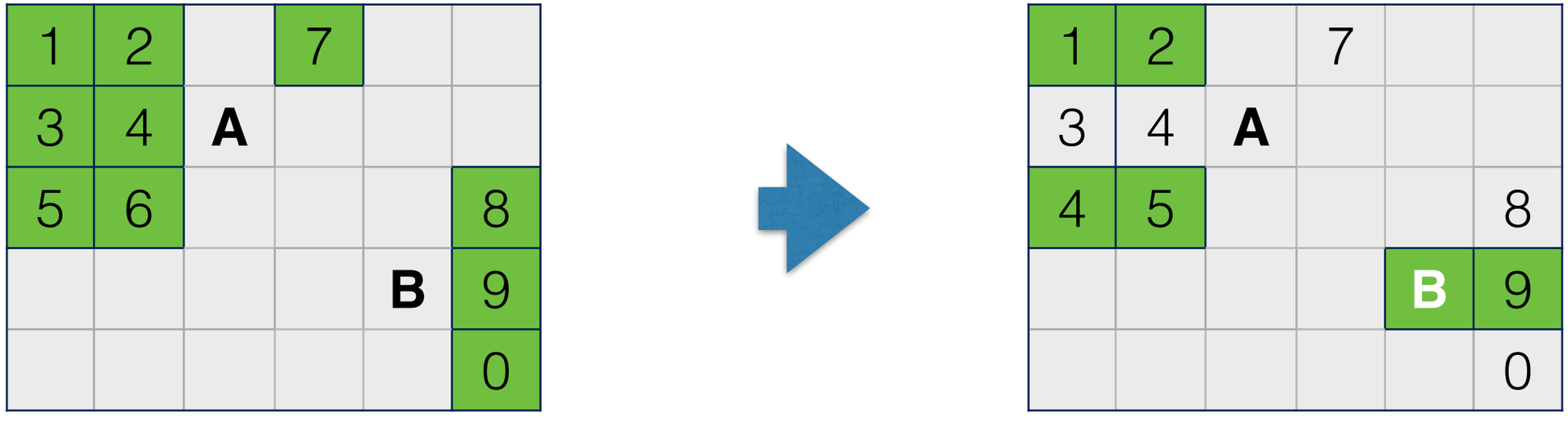
Game of Life Rules

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

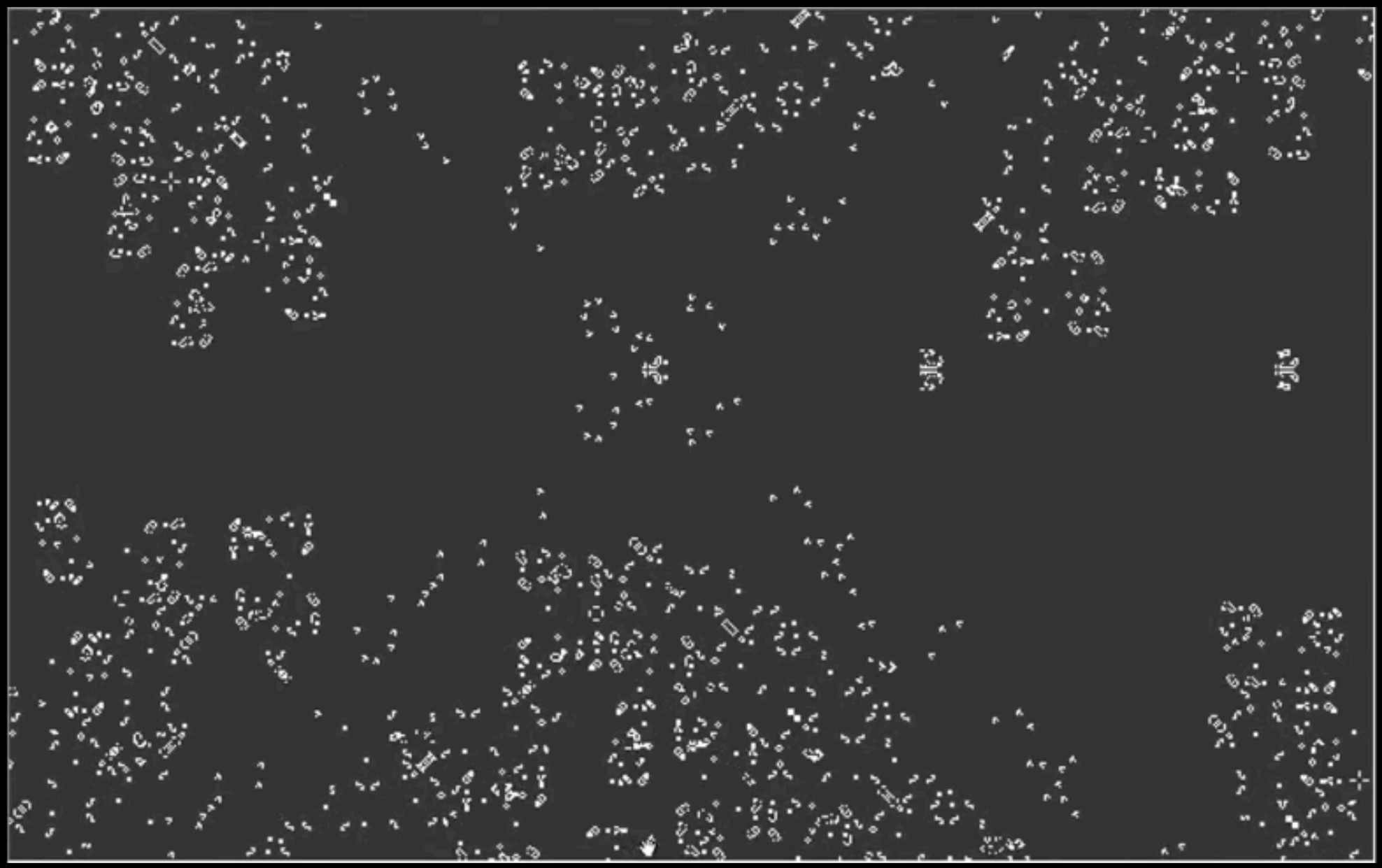


Game of Life Rules

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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