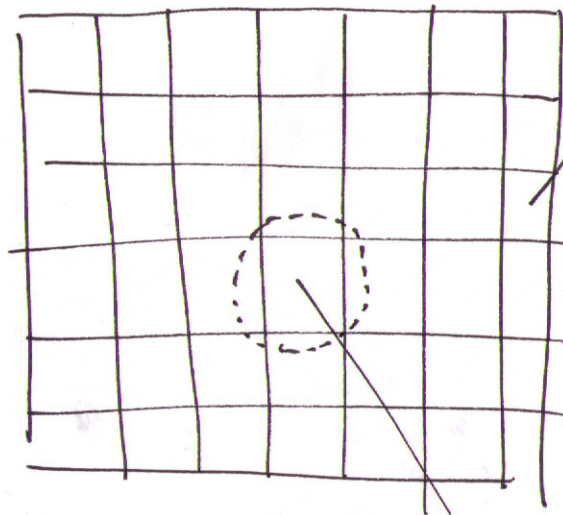


GAME OF LIFE

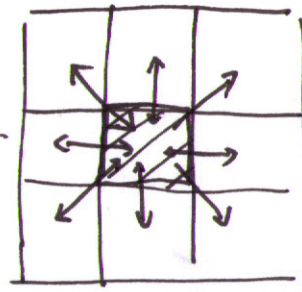


cell

Parameters:

state $\begin{cases} \text{dead} \\ \text{or} \\ \text{live} \end{cases}$

Grid of Square cells.

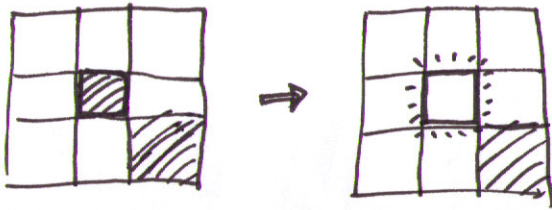


Each Cell react with
its 8 neighbors.

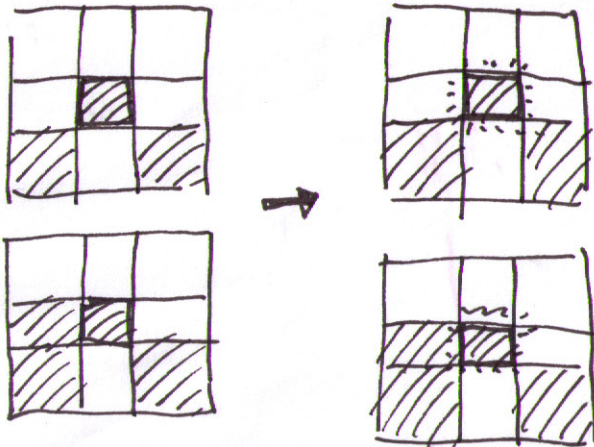
• Make a rule for survival of each cell using the number of live neighbors.

Rules

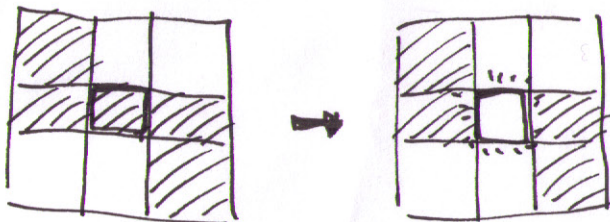
▨ Live
□ Dead.



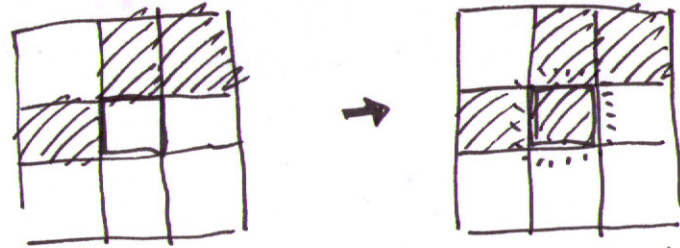
Live cell with 1 live neighbor
→ dies on next generation.



Live cell with 2~3 live neighbors
→ lives on next generation

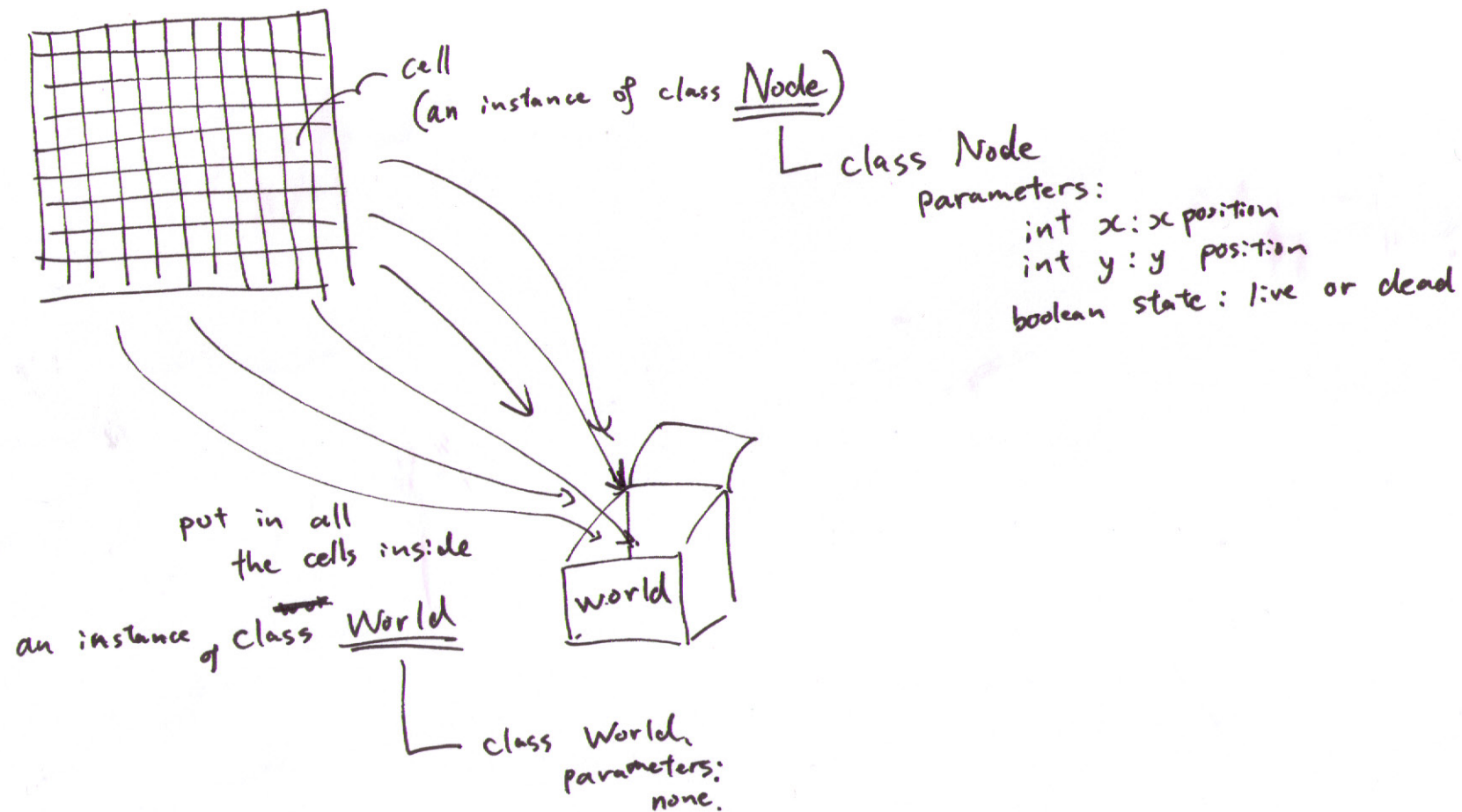


Live Cell with more than 3 live neighbors
→ dies on next generation



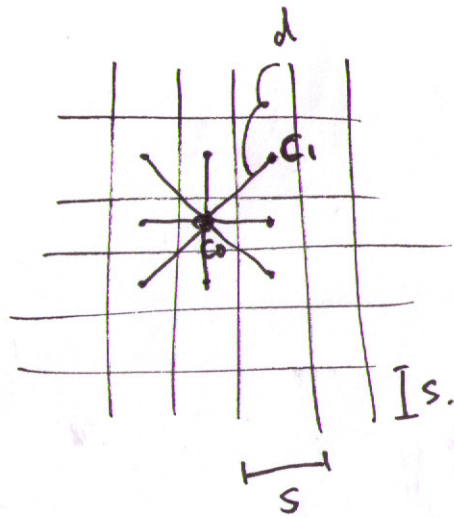
Dead Cell with 3 live neighbors
→ lives on next generation

Initialization



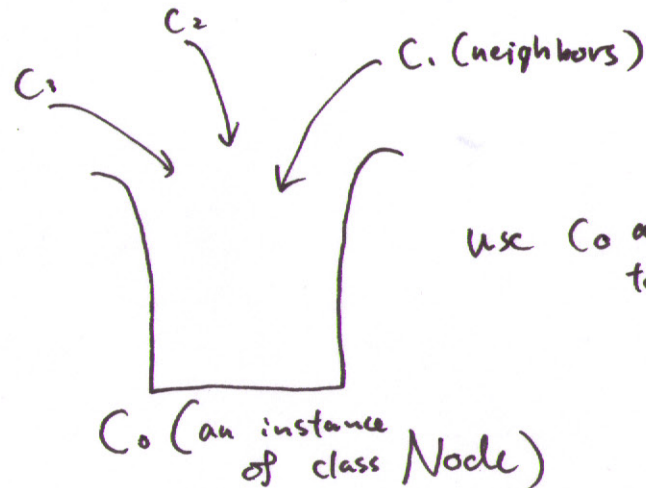
Functions

Initialization



d : distance between center cell
and neighboring cells.
(C_0)
(C_i)

<making/deciding neighbors>
if ($d < s \times 1.5$) then
 $C_i = \text{neighbor}$
else
 $C_i = \text{not neighbor}$



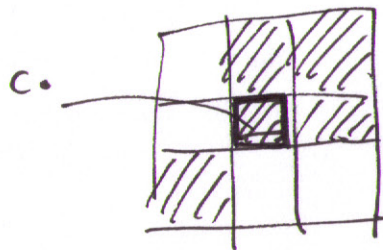
Use C_0 as container
to contain all live neighbors.

Functions.

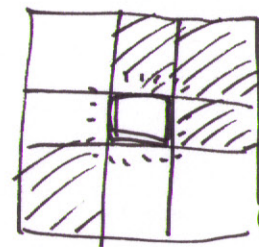
- render: function to render squares.
- next generation: function to change the state on next generation based on the rule you made.

next generation

- make rules (using If)
- change state of cell based on ~~cell~~ rule (by making new List of the state of all cells for next generation)

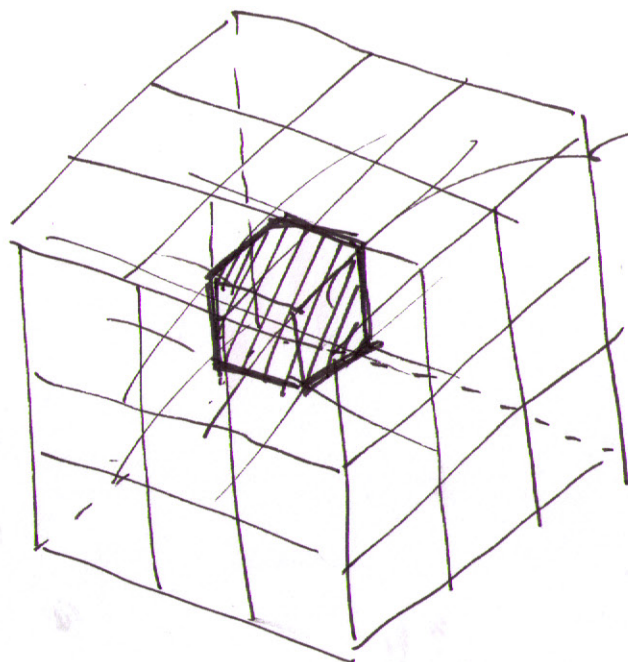


if ($C_0 = \text{live}$ && neighbors ≥ 3) then



C_0 dies.
on next generation.

3D



Center cube (cell)
has 26 neighbors.

- rule may be different from 2D ones.
- z coordination is added.

Additional Rule

- how long it survived.
- how many cells on bottom of its cell
- relation with other element such as agent
- ...