

LLD- Snakes and Ladders



Tic Tac Toe

→ Design

→ Models

②

Designing Snakes & Ladders

→ break ←

③

Accepting ↓ npo'

→ 3 layers
→ 



①

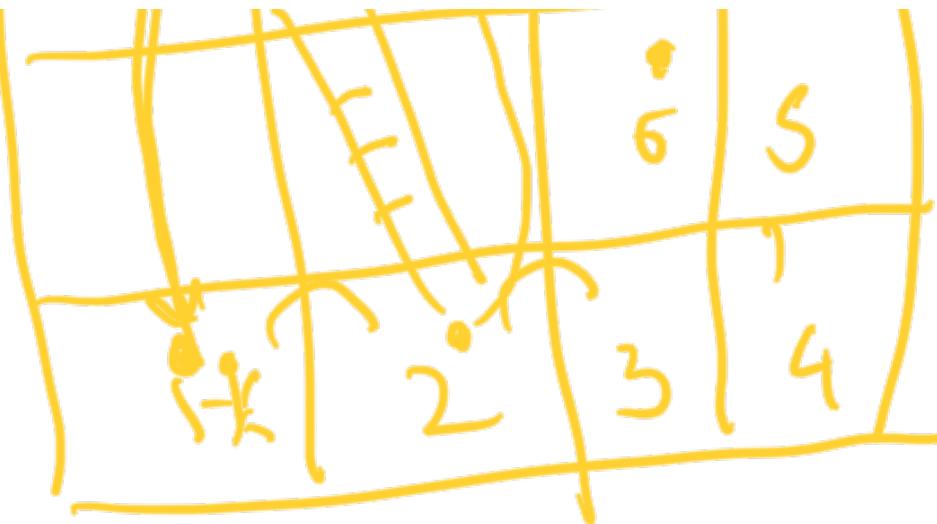
what is X?

6



1 - b

1 Dice)



1 - 100

1 - 1000



②

What are the requirements?

①

How many players will be

there?

↳ ②

Current
Future
ambitious

②

In the future (Part 1)

↳ 3

1

2

②

Types of players

↳ Human

③

How many strokes & Ladders

↳ User Request
↳ Random X

Mock

- 4 The size of the board is configurable



- 5 | How does a player win |

6



→ The player
has to cross
the last cell

 Just one player

99 5

100 101



left

--

101 102

Rolls dice



A set of faces



Dice



Faces



$$1 - b = 12$$

1 or 3

$$3 \quad 4 \Rightarrow \text{sun}$$

6 7 \Rightarrow One more chance

A hand-drawn diagram in yellow ink. At the top left, there are two circles, one above the other, with the number '6' inside the top one and '7' inside the bottom one. An arrow points from these circles to the right, leading to a circle containing a wavy line. To the right of this circle, the text 'One more chance' is written.

① Design S&L game which allows user to create and play game

② Multiple players can play the game but only human players

③ A human player can register with email, username & photo.

↳ Register

④

There can multiple dies : 3, 4 ... N
dies

⑤

Each die can have multiple faces

⑥

Board \rightarrow User Request
 \rightarrow Random generation

⑦

Each player plays turn by turn
1 to N on die

→ ...
→ (one end) if only one atom
is left

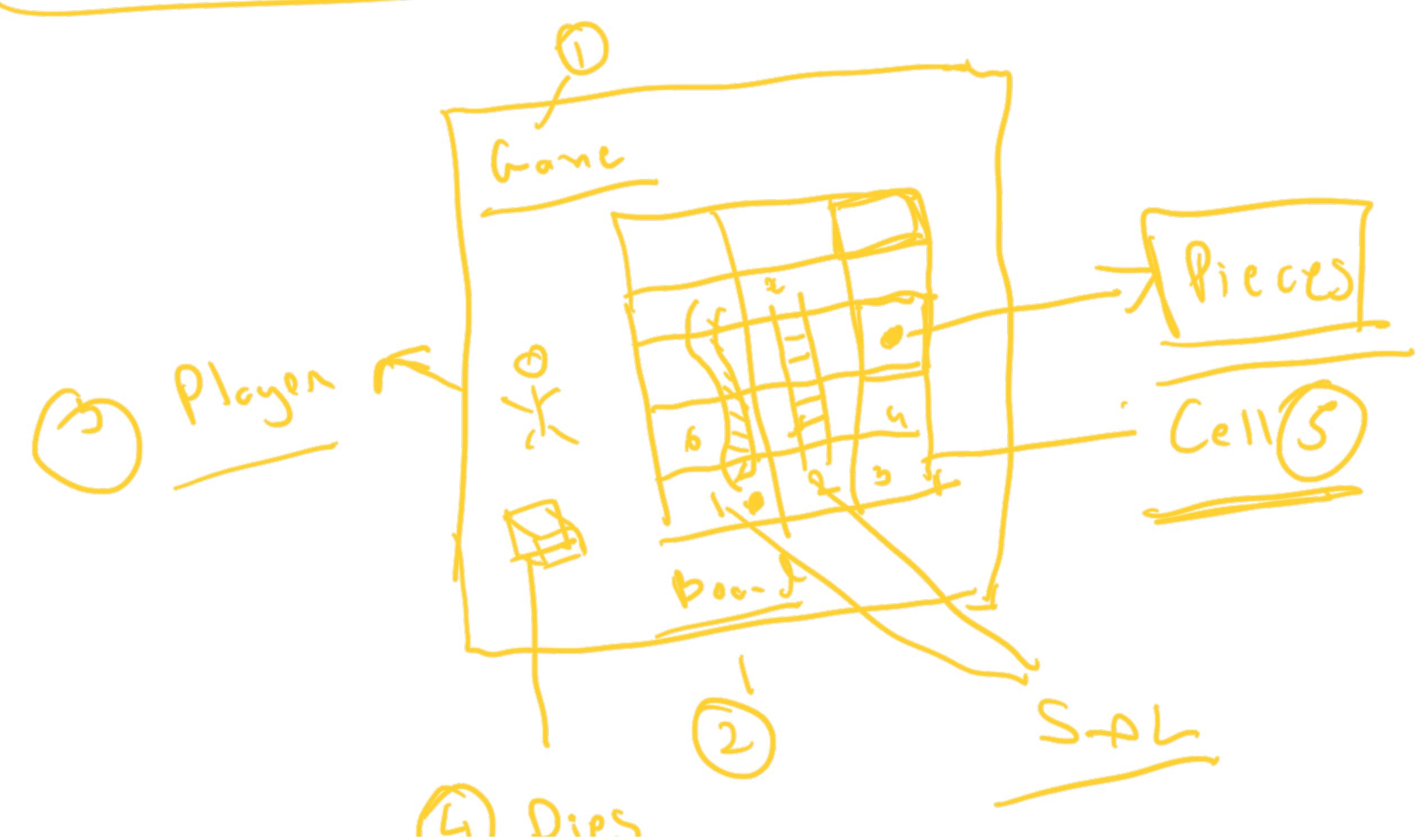
Zomn

→ Problem
→ PSR questions
→ Understanding

Entities

→ nouns

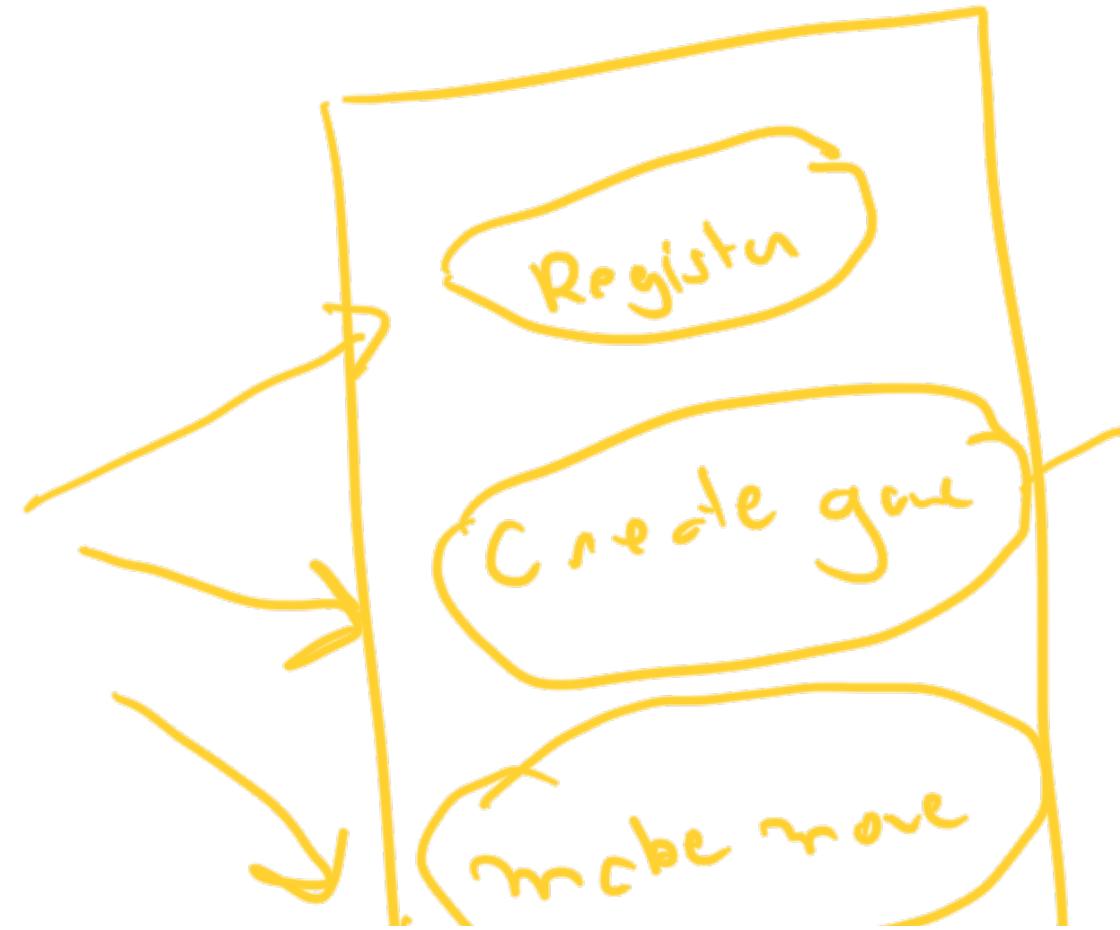
→ visualise





Actors

Player



Class Diagram



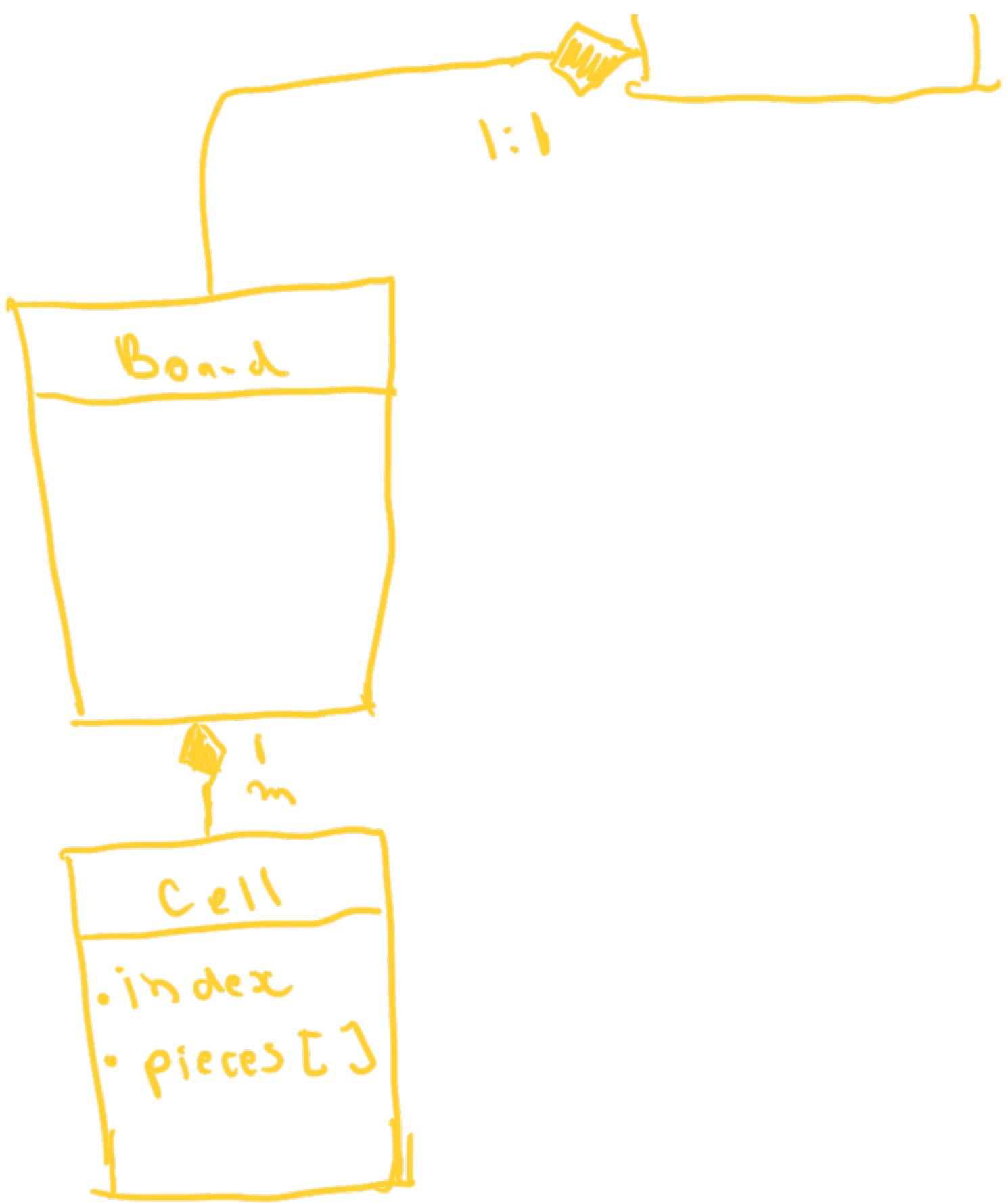
E-R

Association
or Inte.
Correlation

- ① Class Diagram
- ② Vir.
- ③ Use Case Diagram

Class Diagram





Cell 2

→ index

⇒ pieces []

→ Snake

→ Ladder

→ Frog

{ }
} { }

{ Start
end
{ Start
end }

Cell S

index

Pieces []



→ SpecialCell



2 end

if (special cell == null)

→ Option
Dummy cell

① has Special cell

② next()



Dummy

index index - 2
l. roll special - 2

L next ①

Snake & Ladder in a cell

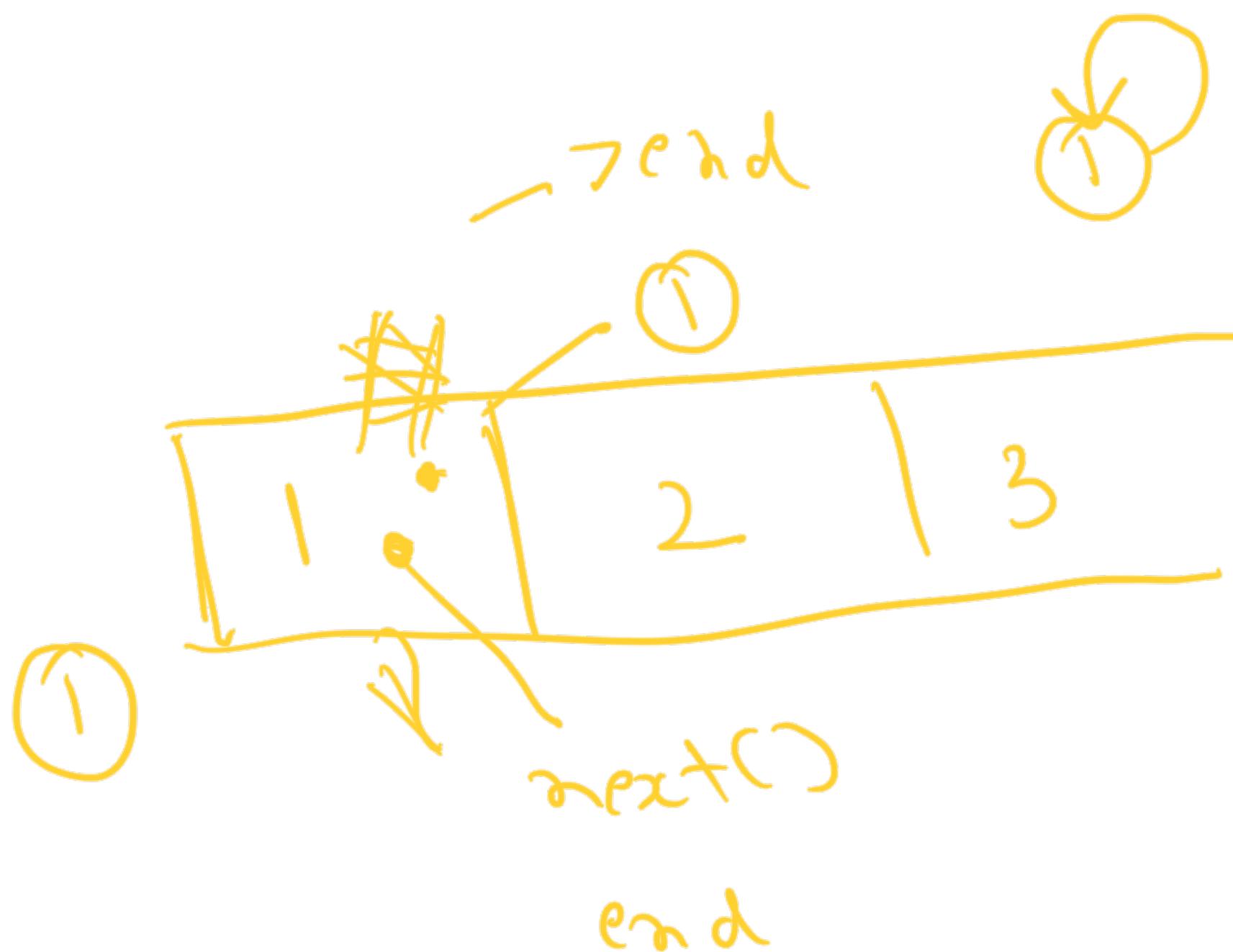
Cell S

Special Cell

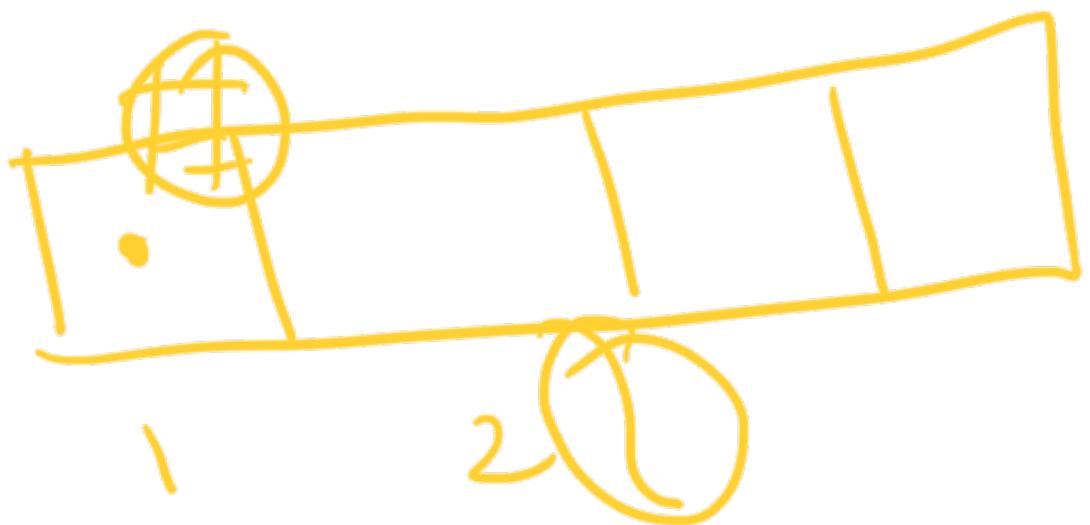
Snake, Ladder

→ Dummy cell, base cell

`next()` ⇒ destination



base Cell



next()



⑤ min

↳ Class Diagram

↳ use the solution

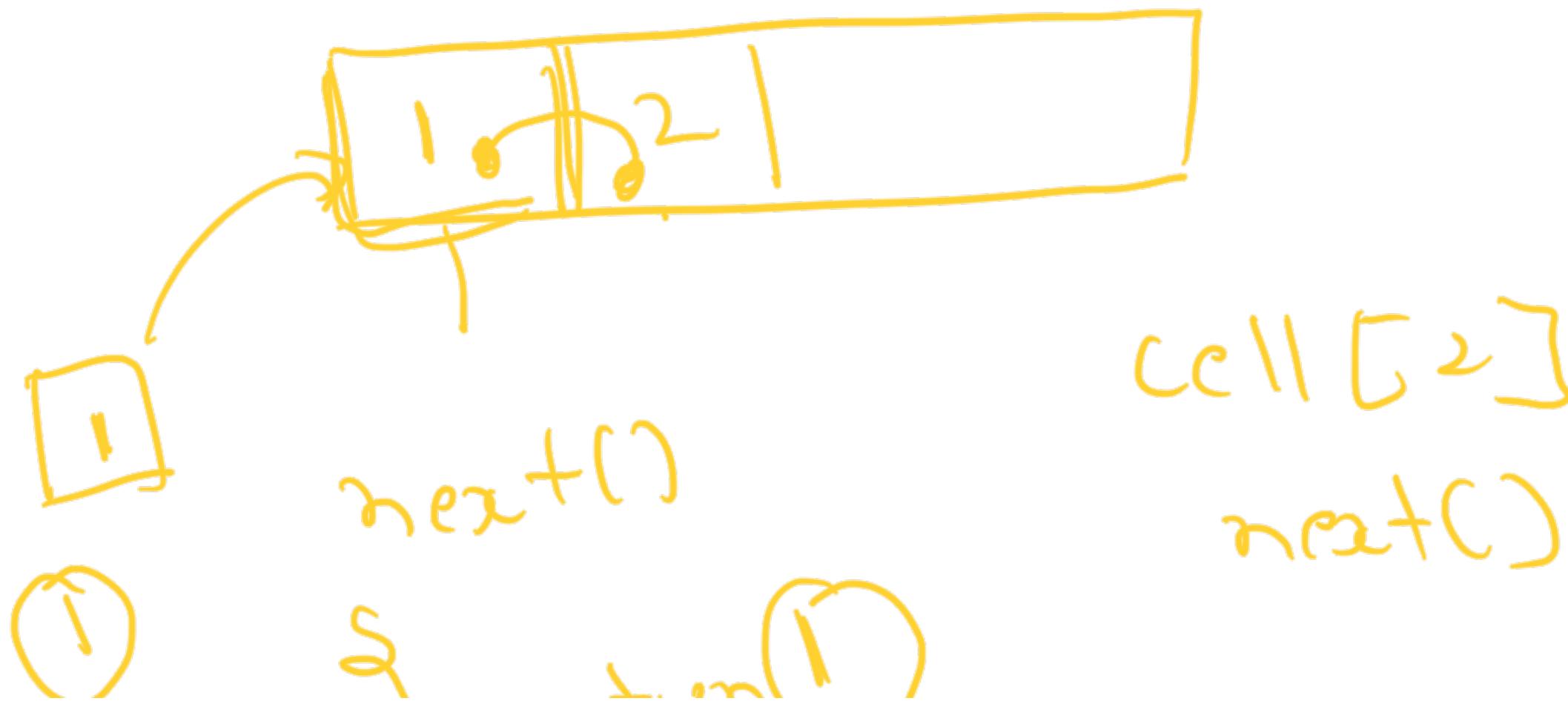
↳ accept input

2:30

↳ implement

(.77)

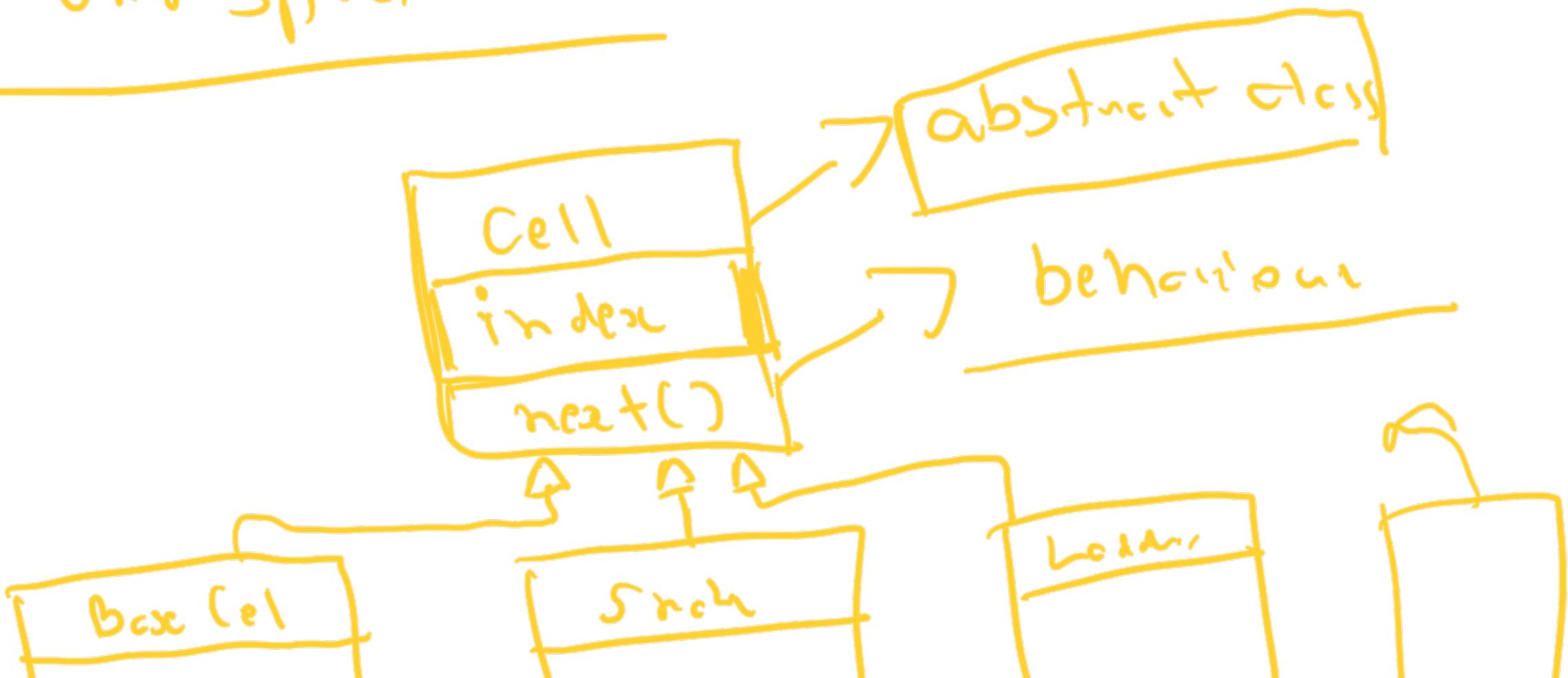
next()
/ \



$t \rightarrow \text{cell}[i]$

\hookrightarrow piece

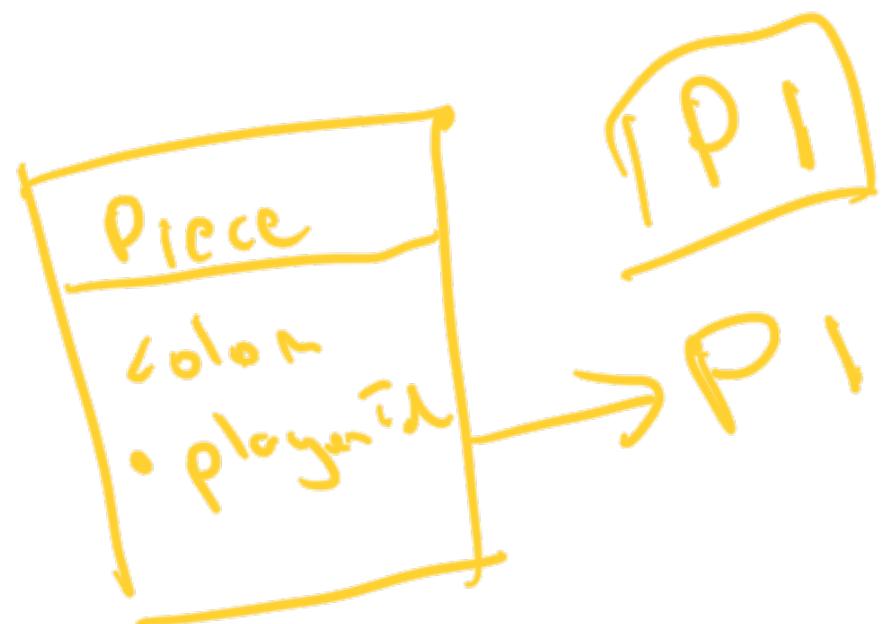
Cell and special cell







1. r1 - C2



② Accepting input