

view → controller → back-end
"collide"

NAMES: attacker, prey
extendable

MAKE FRONT-END 'look like'

Look up binding objects

APIs: public method

grid back-end, front-end ~~coordinates~~ grid

↳ list of balloons in the backend (farthest along in their radius)

→ radius is grid

Backend :

Configuration Loader

- CSV, choose your own path (extra feature)

Tower [abstract]

- abstract

→ shoot

create specific bullet type per tower, set speed & directions

- continuously called
- different speeds / directions bullets

- price
- radius [shoot]
- rank
- upgrade (abstract)

Balloon [abstract]

- pop (private)
- abstract
 - onCollision
- health
- update Balloon

special balloon that gives health back (+1)

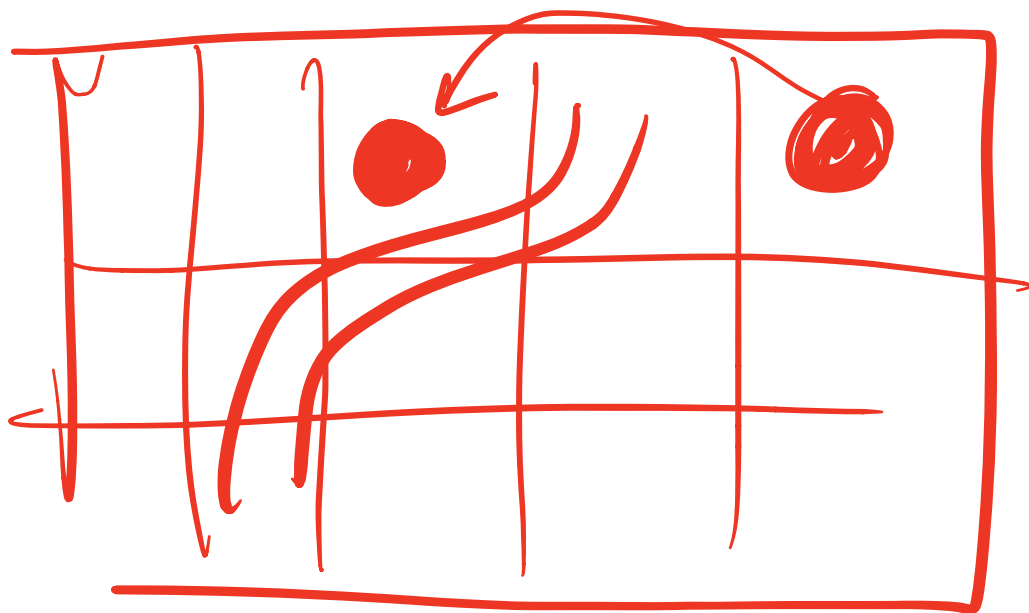
✓

Bullets |
cannons, missiles

- strength/damage
- speed
- enum

Player

- coins
- RANK?
- health bar



GRID

(path)

0	0	0	0	1	0
0	0	0	0	1	0
0	0	0	1	1	0
0	0	1	1	0	0

Grid

dim: $\xrightarrow{\quad}$ some amount of zeroes
540 / 40

if balloon is in the grid, pop it

how to move the balloons
in a grid simulation?

on the front-end smoothing.

→ cell/second

- back-end balloon
iterate over cell

- front-end (smoother ↗)

FRONT-END

pause

Target View

Attacker View

Bullet View

Game Display

- animation
- Timeline

Store View

Grid View

Landscape

Path

(abstract)
PowerUps

(abstract)
Display Indicator
updateStatus()

views for
each

health bar

coins

Controller

- instance of backend Grid
- instance of frontend Grid
- binding objects to each other
- Step method (continuous)
 - ↳ update Balloons
 - ↳ update Backend Grid (w/ new towers)
 - ↳ upgrade Towers
 - ↳ update Player

! (ex: Can the user
buy this
tower?)

Cheat keys

↳ speed up animations

↳ skip level

↳ add wins

• level-based
updates