

Le fonctionnel par la pratique

Live Coding d'un jeu Web

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Guillaume Eveillard @geveillard

Qui sommes nous?

Quentin

- 6 ans à Murex
- C++ le jour
- Haskell & Clojure la nuit

Guillaume

- 5 ans à Murex
- Java le jour
- Cherche son language

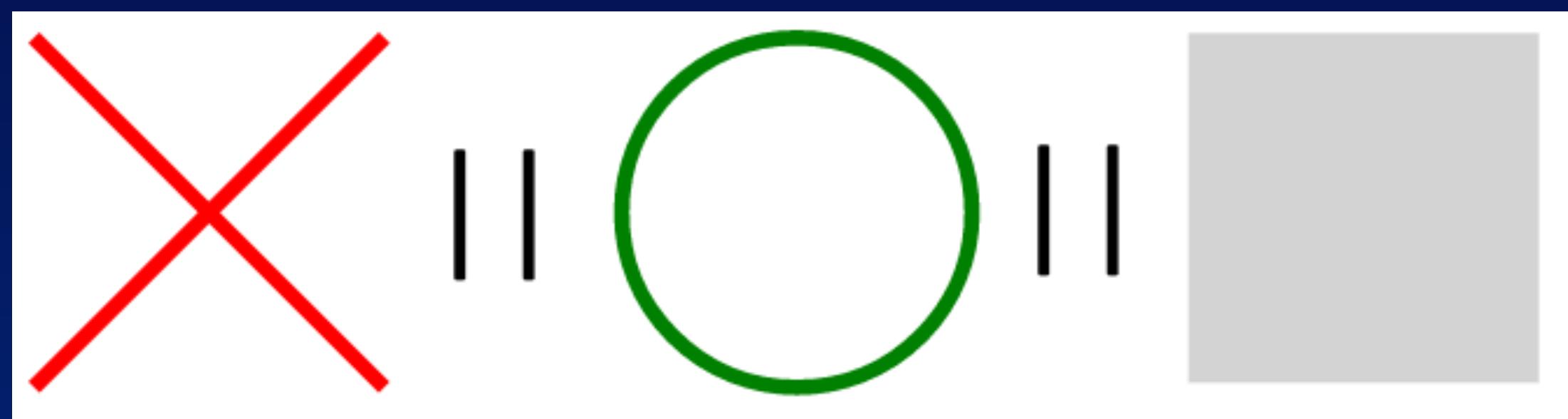
Clojure

- (((LISP))) - todo: add logo
- Functional
- JVM: Clojure
- JavaScript: Clojurescript

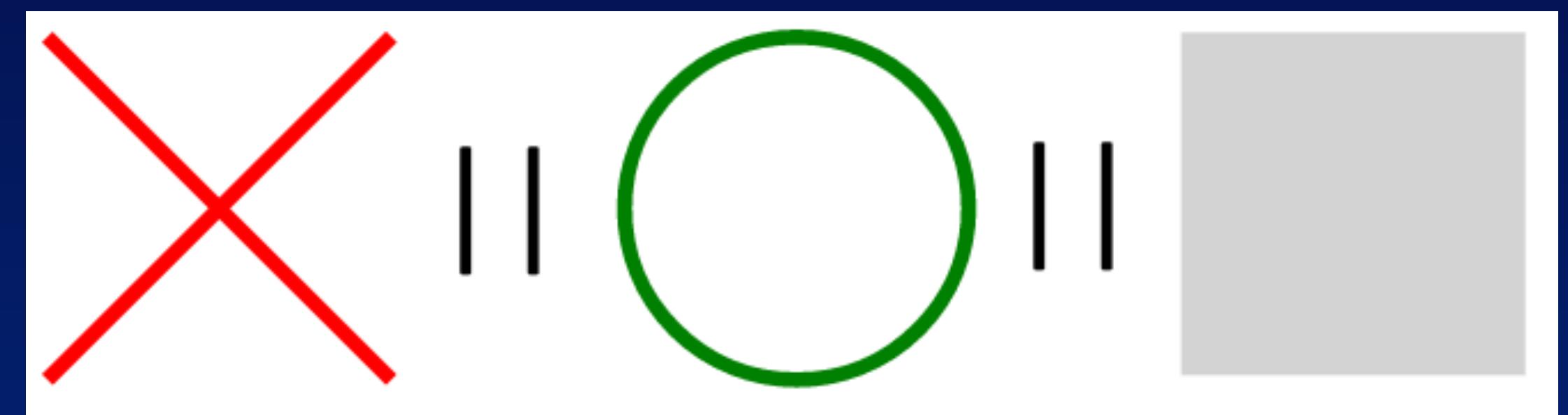
Clojure en 5 min 28

Live Demo

Owner



Owner

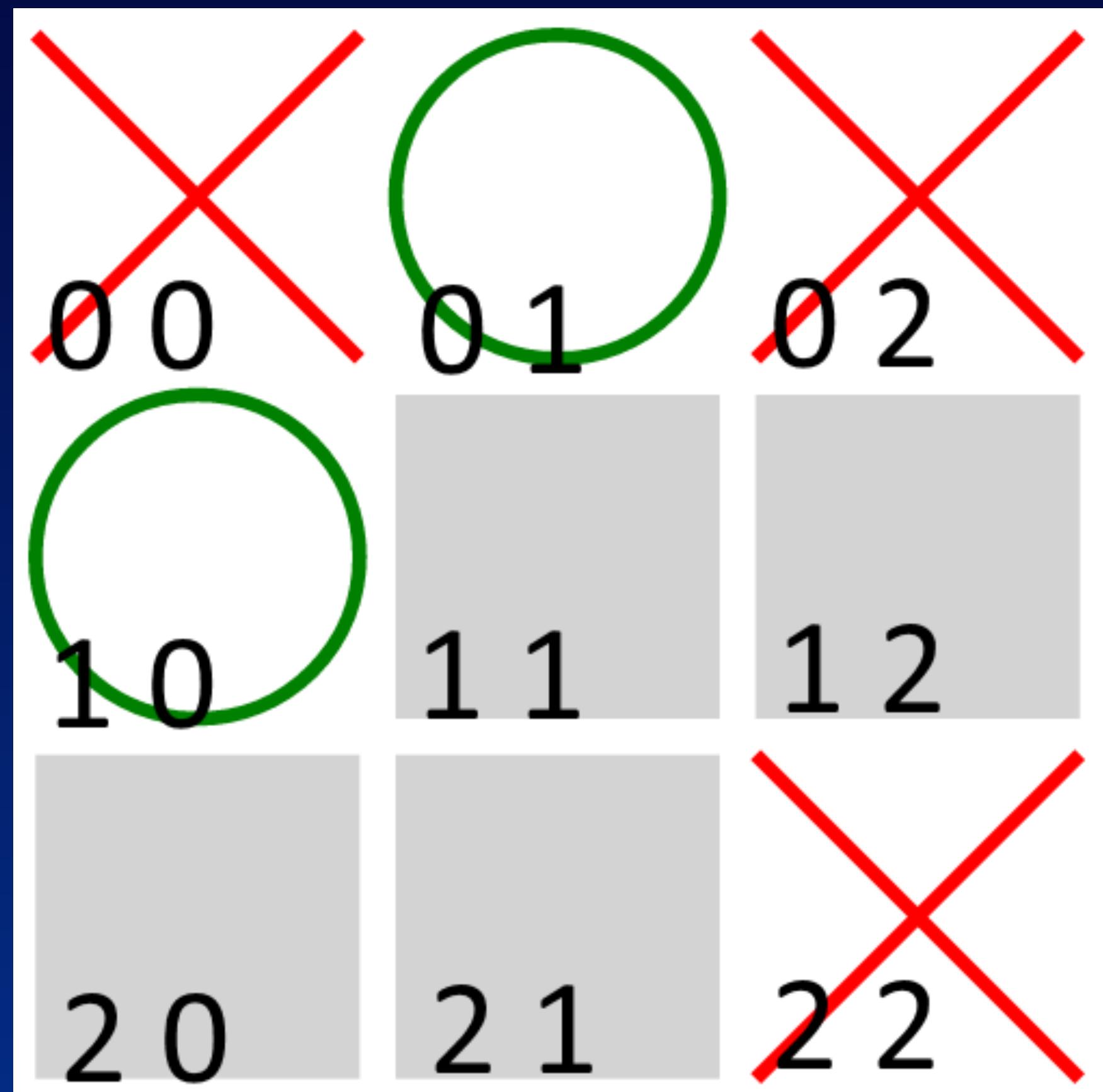


:owner/cross

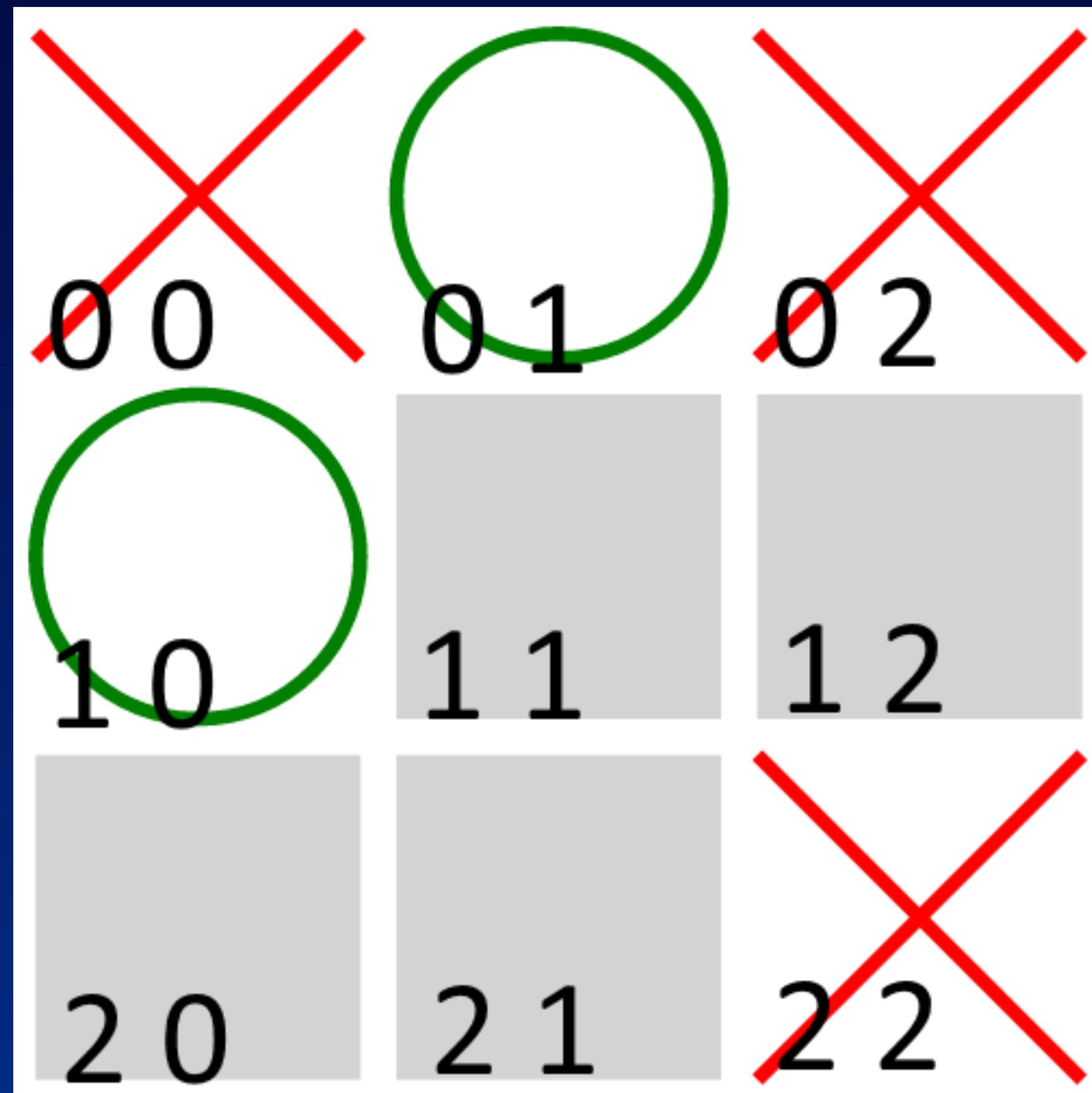
:owner/circle

:owner/none

Board

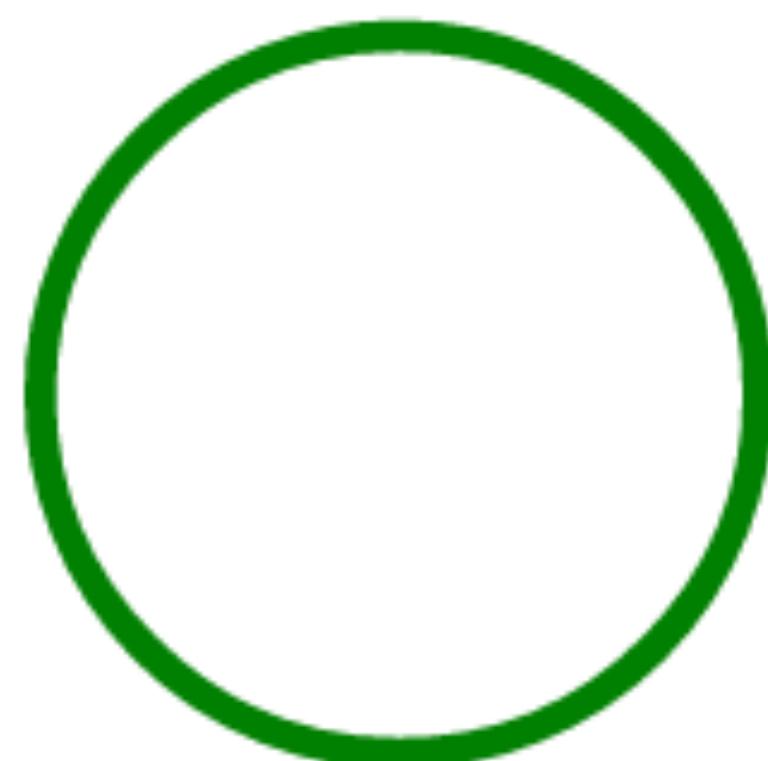
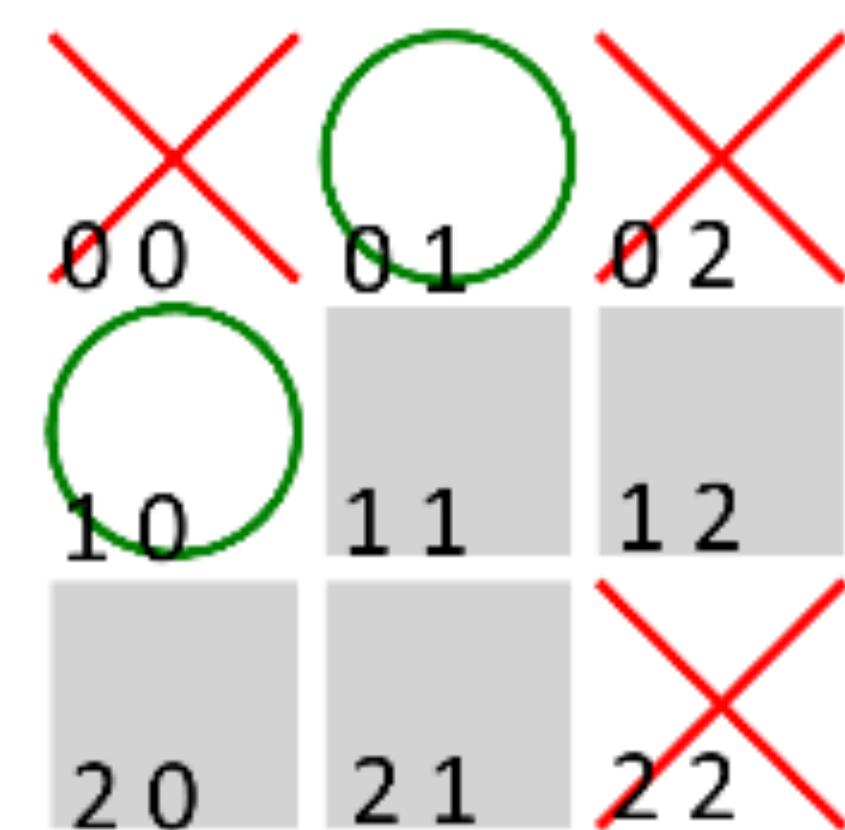


Board

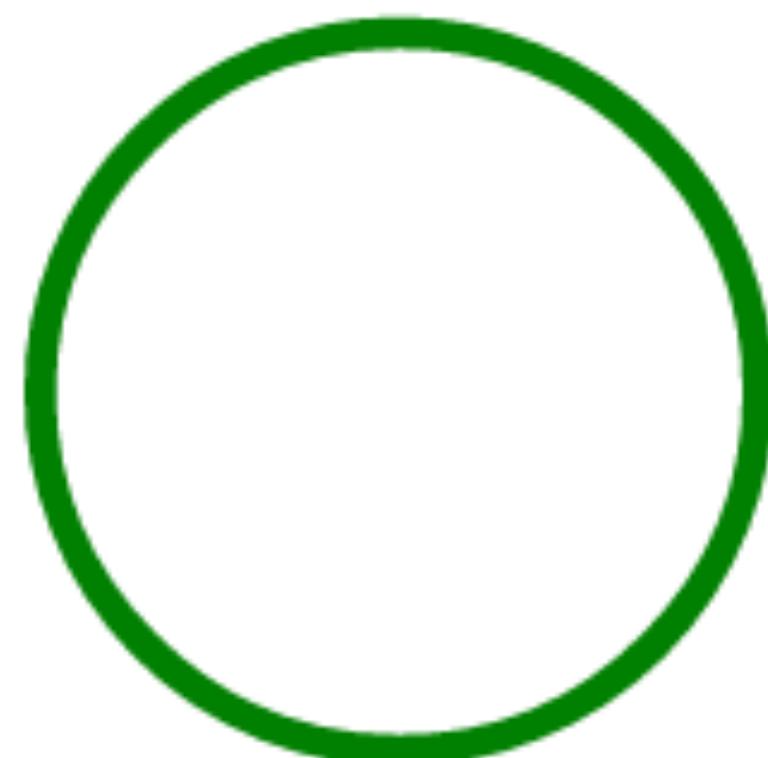
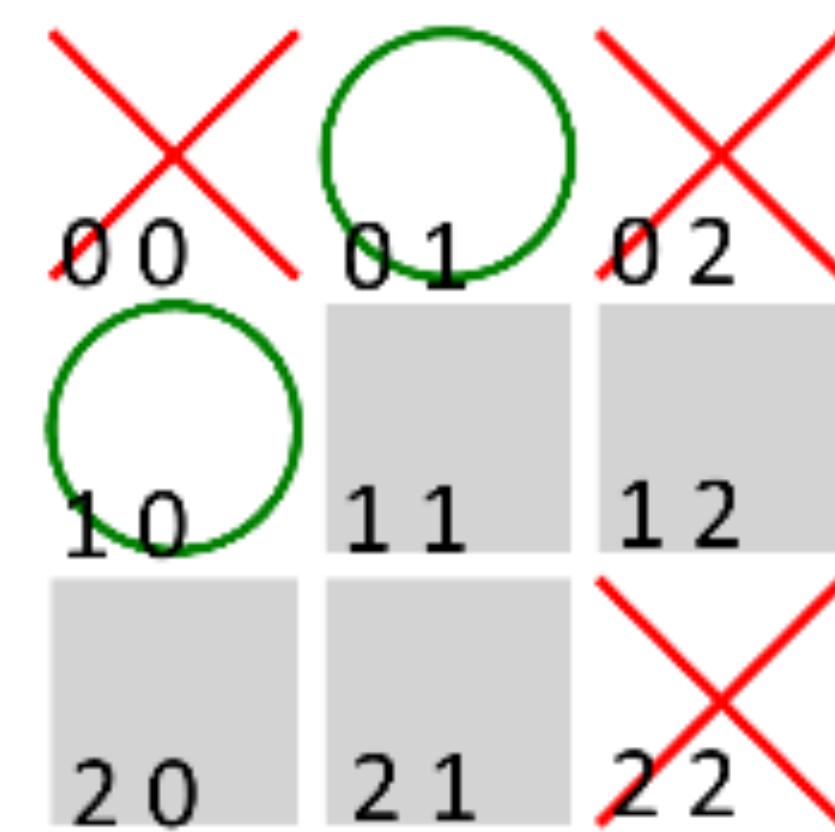


```
{ [ 0 0 ] :owner/cross  
[ 1 0 ] :owner/circle  
[ 2 0 ] :owner/none  
... }
```

Board + Next player

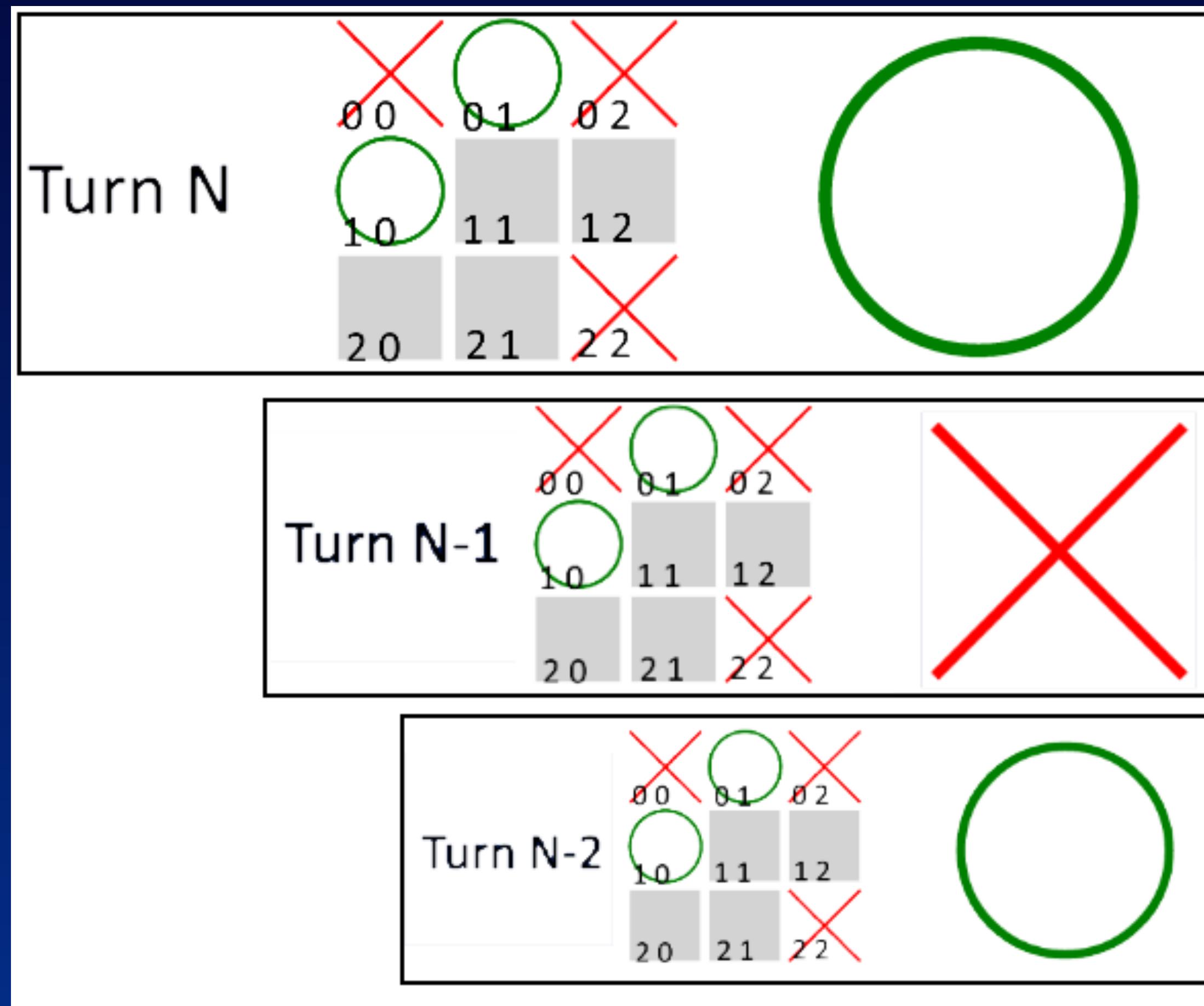


Board + Next player

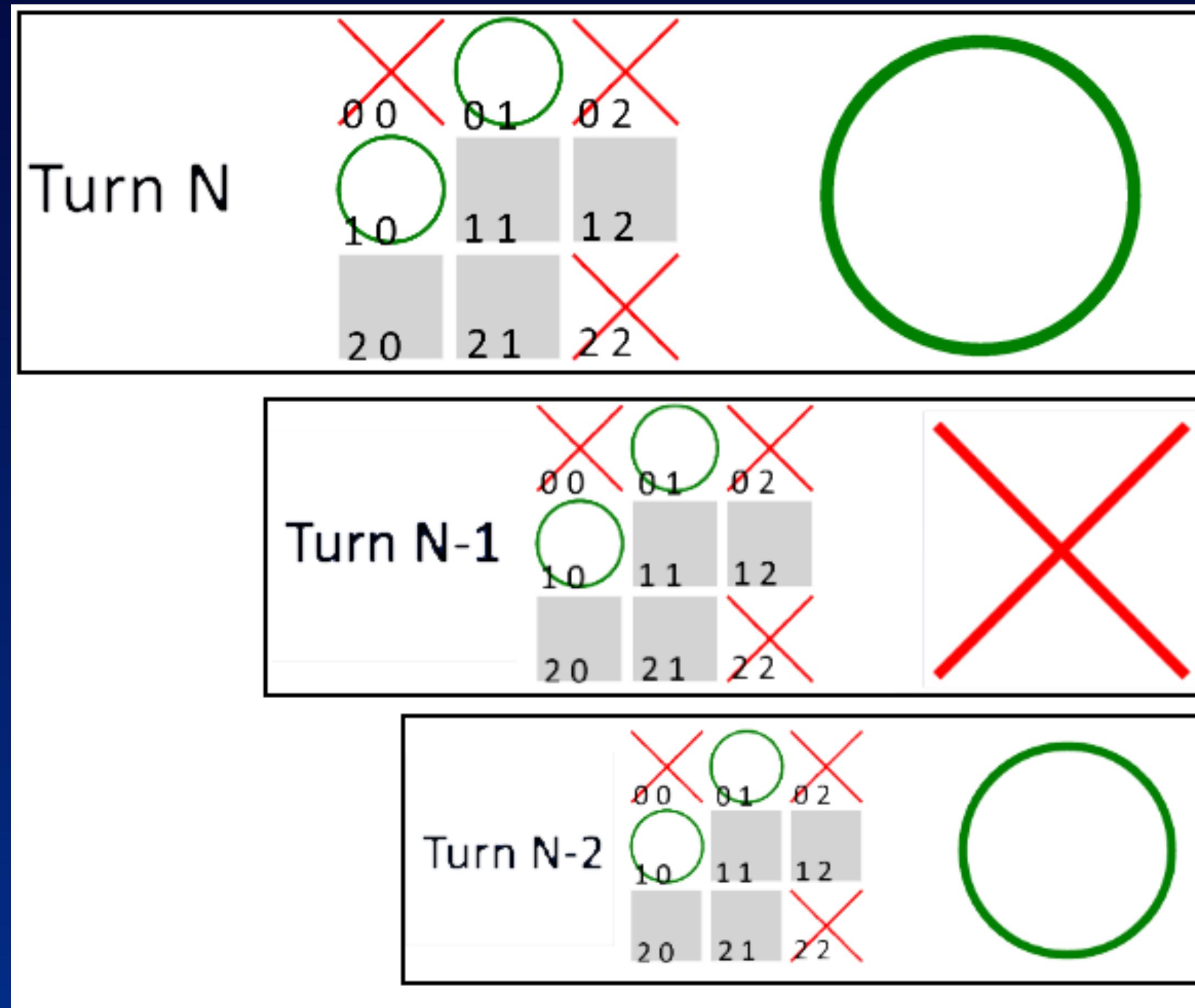


```
{ :board ...
:player ... }
```

Game



Game



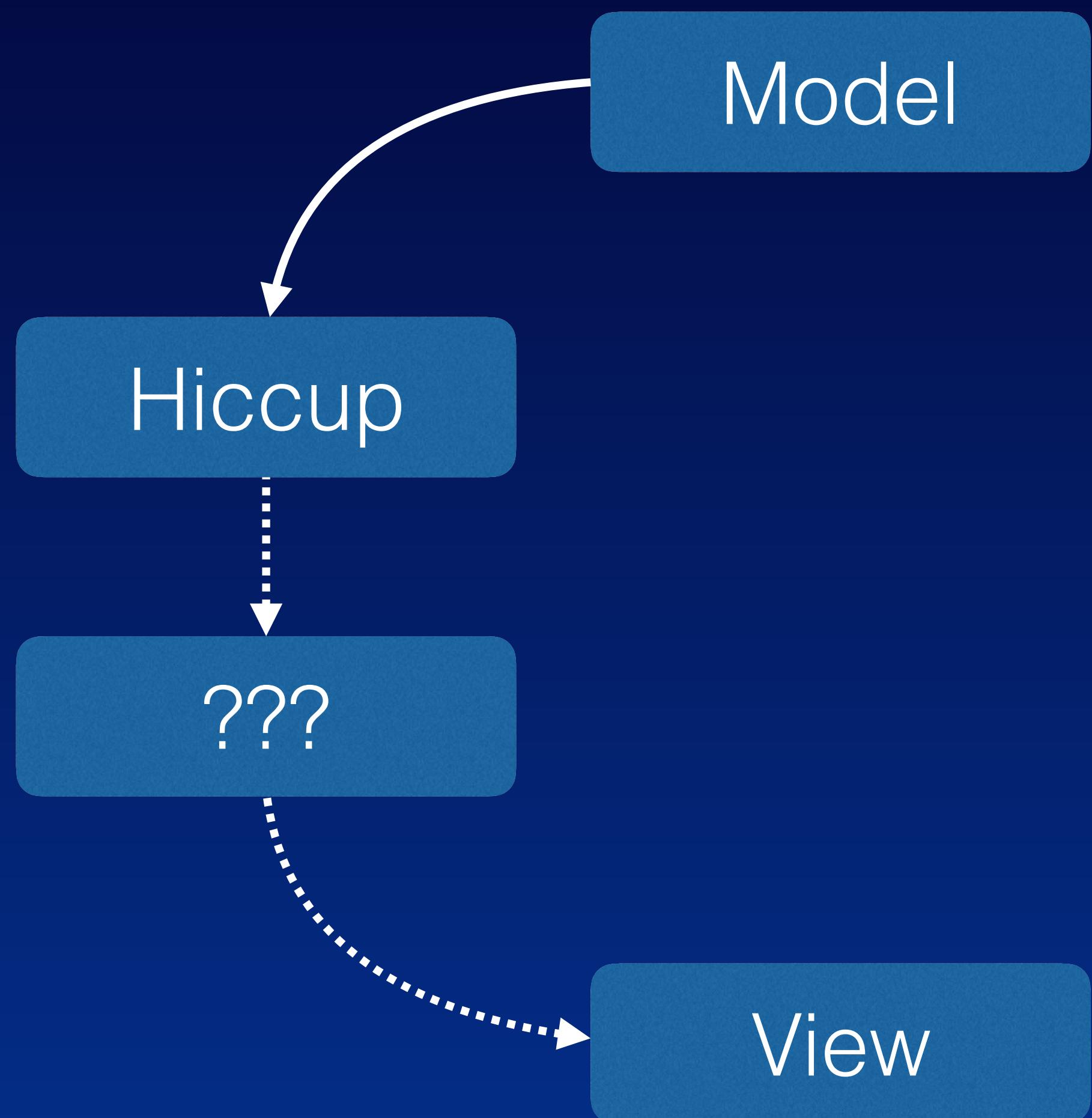
[turn-0
turn-1
...
current-turn]

TicTacToe in 25 min 17

Design

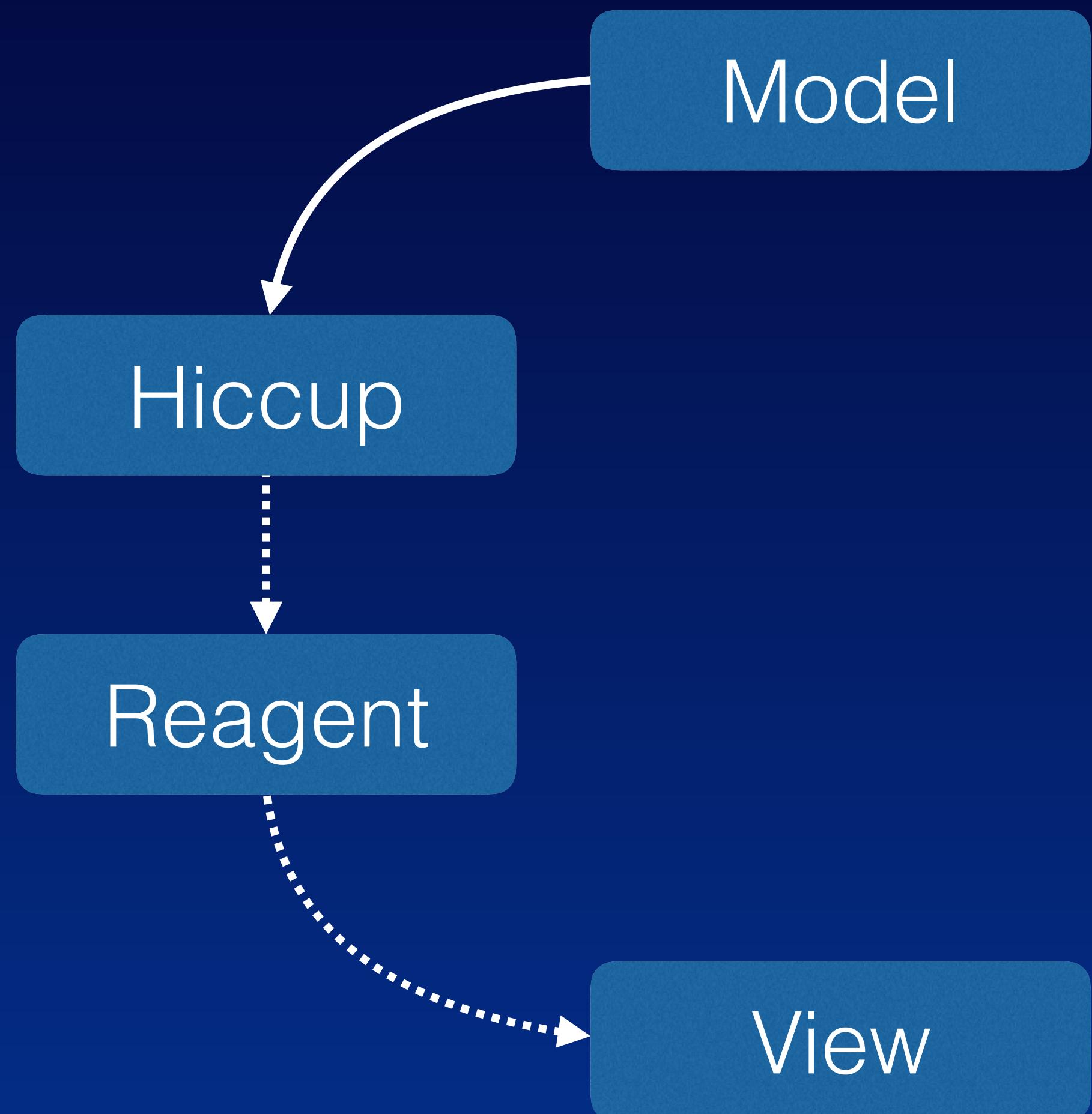


Design



Live Code

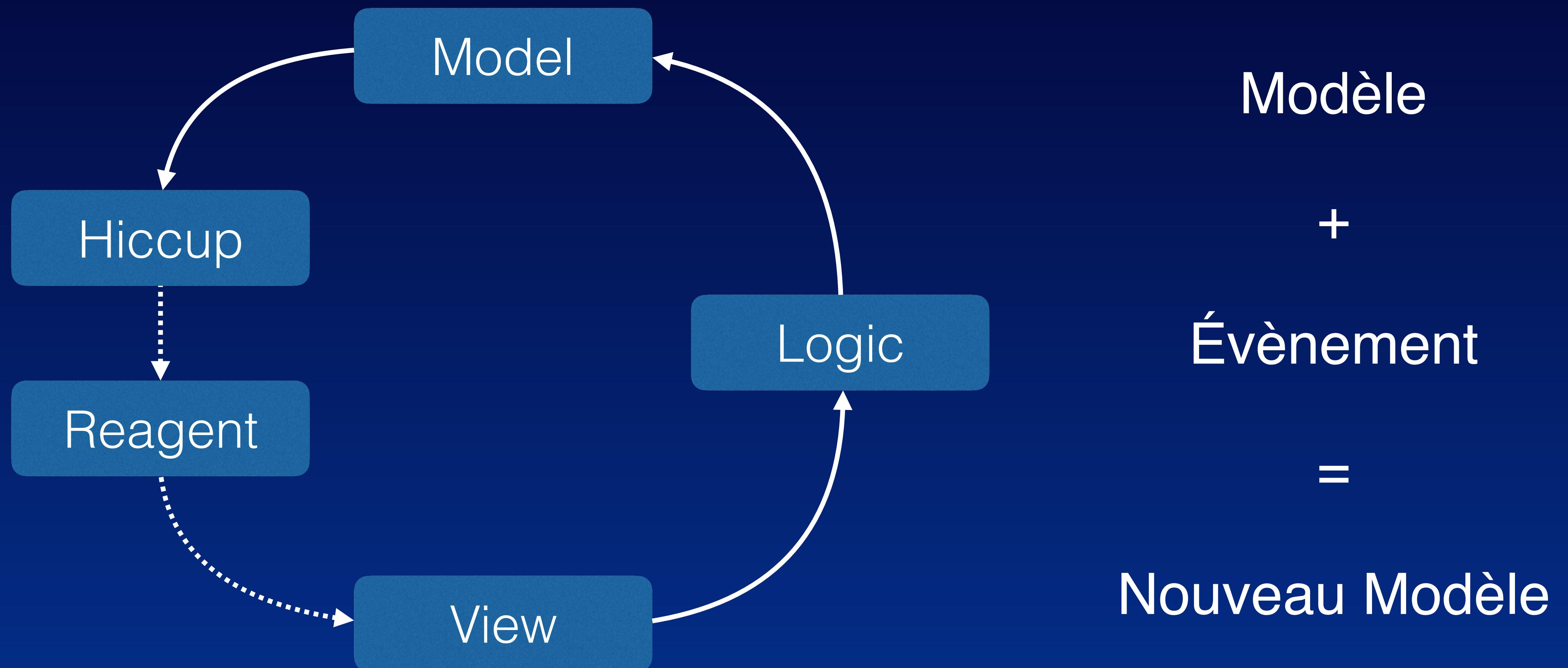
Reagent: la brique magique



- Surcouche sur React
- Intégré dans le langage
- Pas de templating

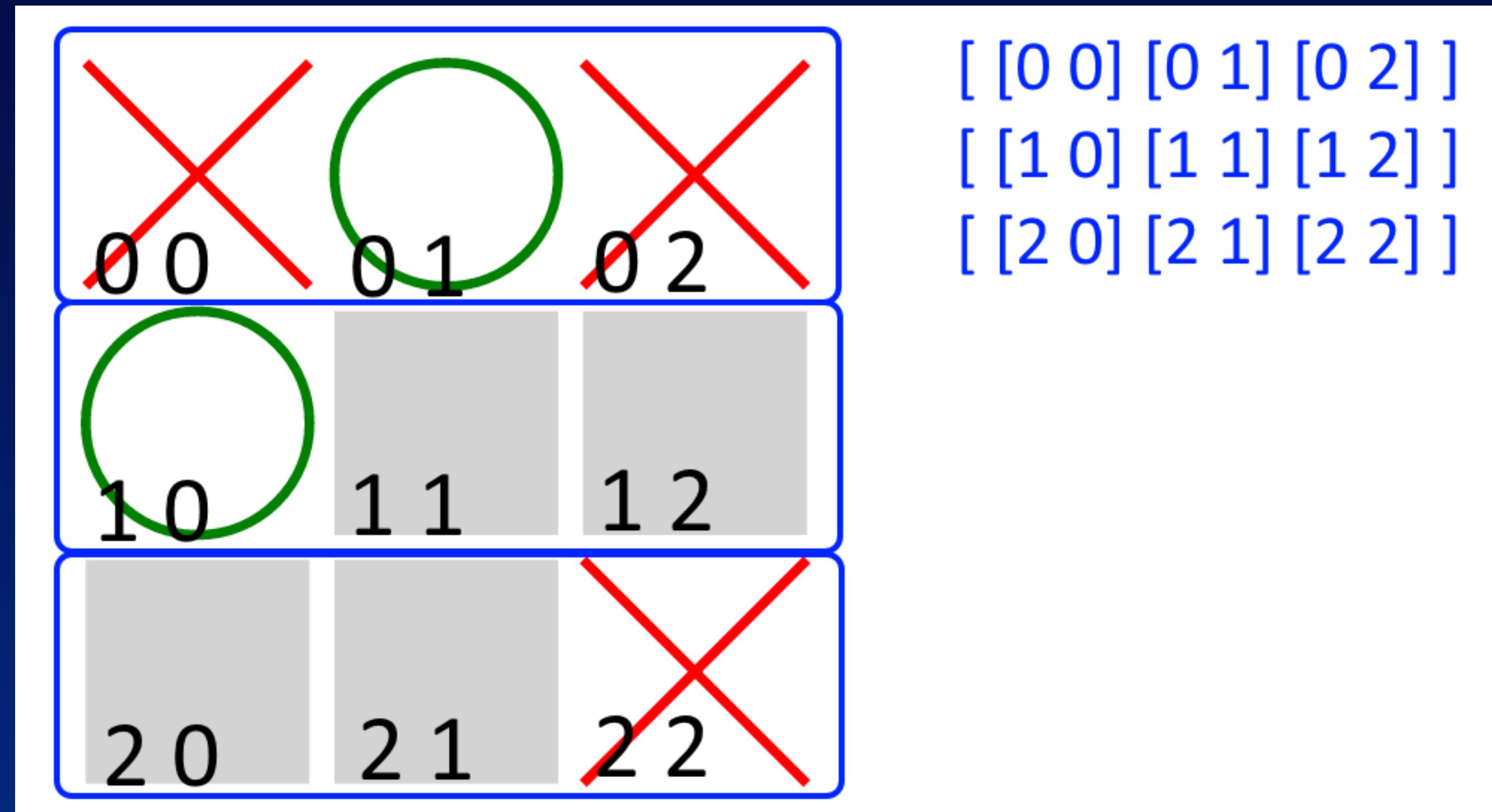
Live Code

Design

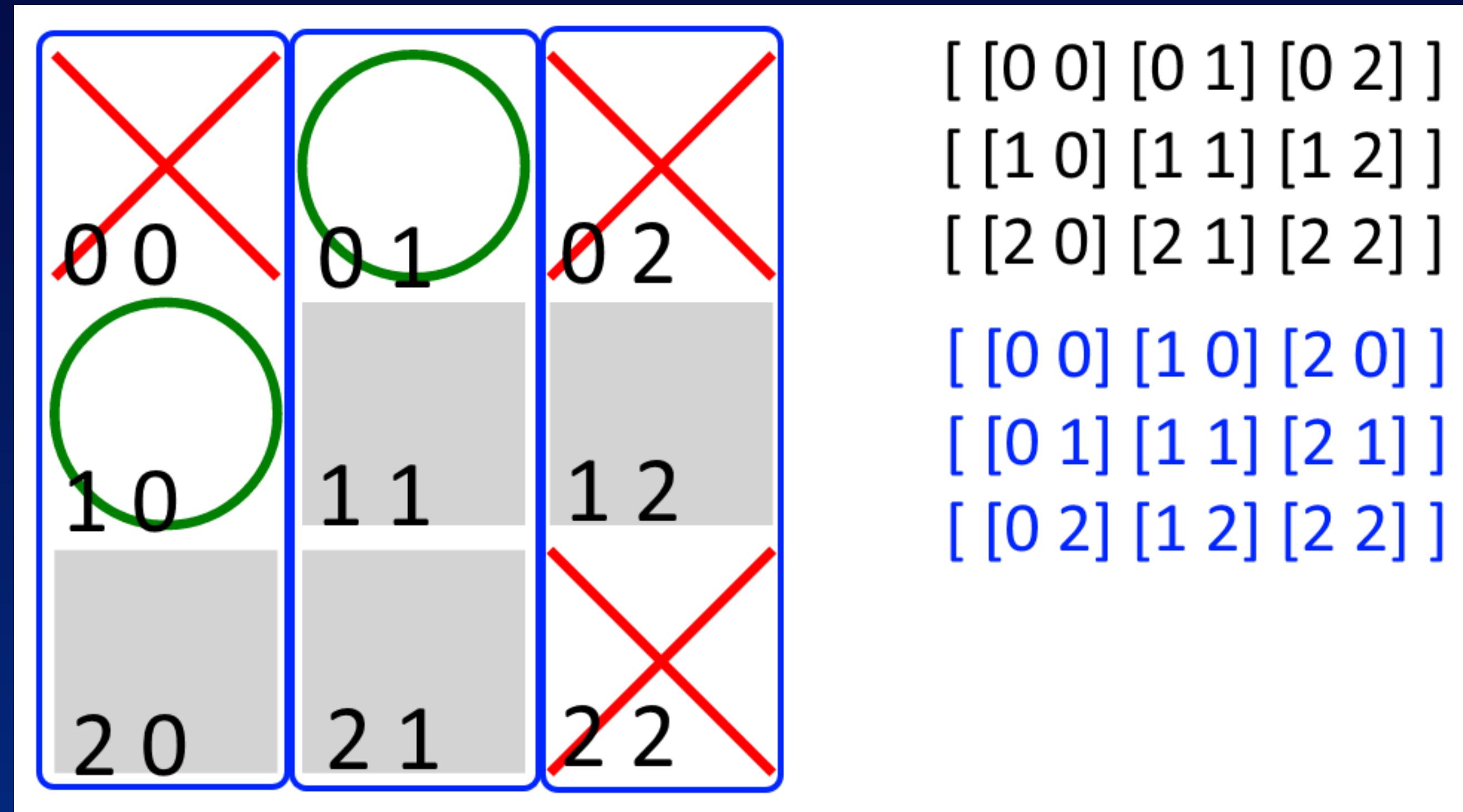


Live Code

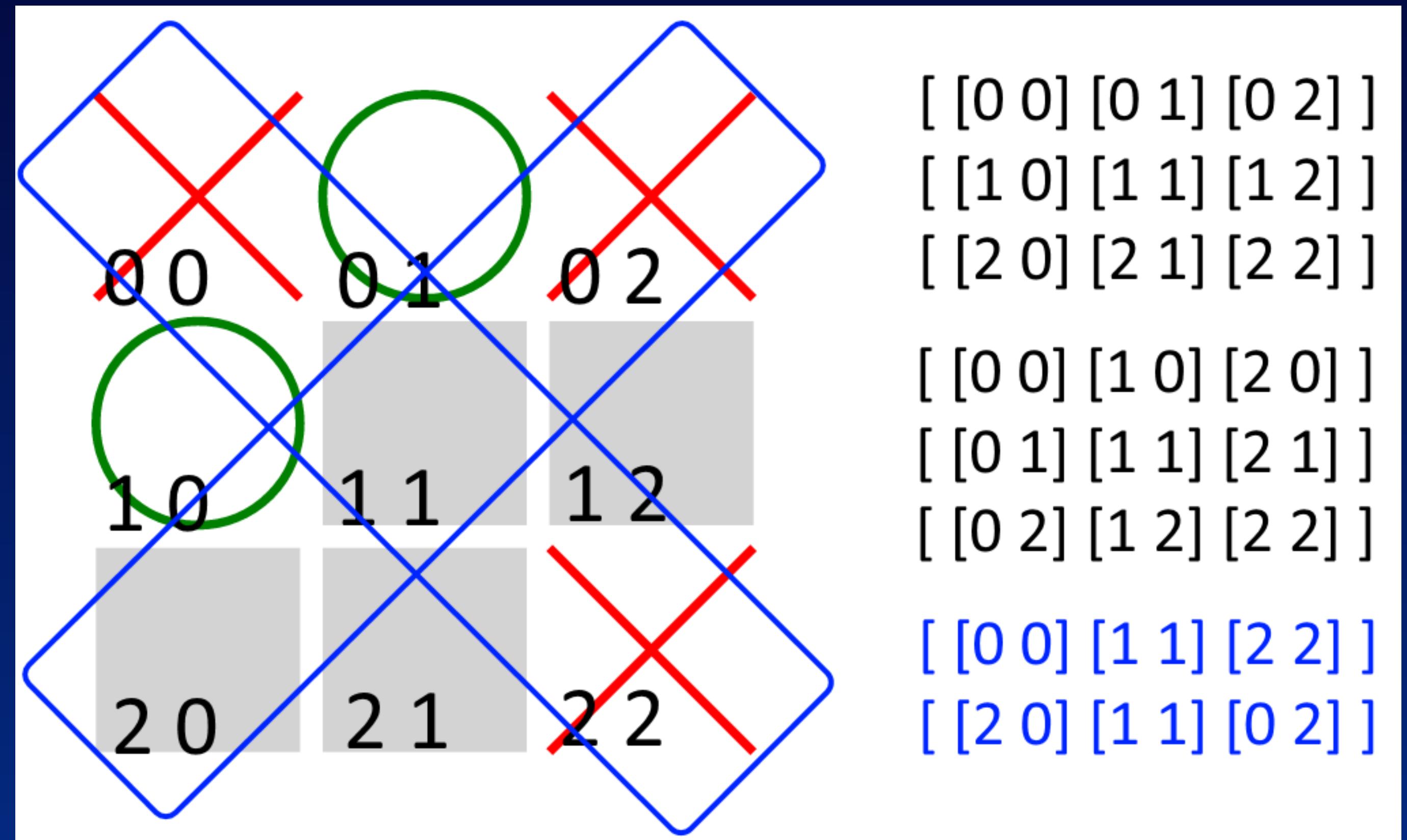
Winning cell sets: TODO - Draw the logic



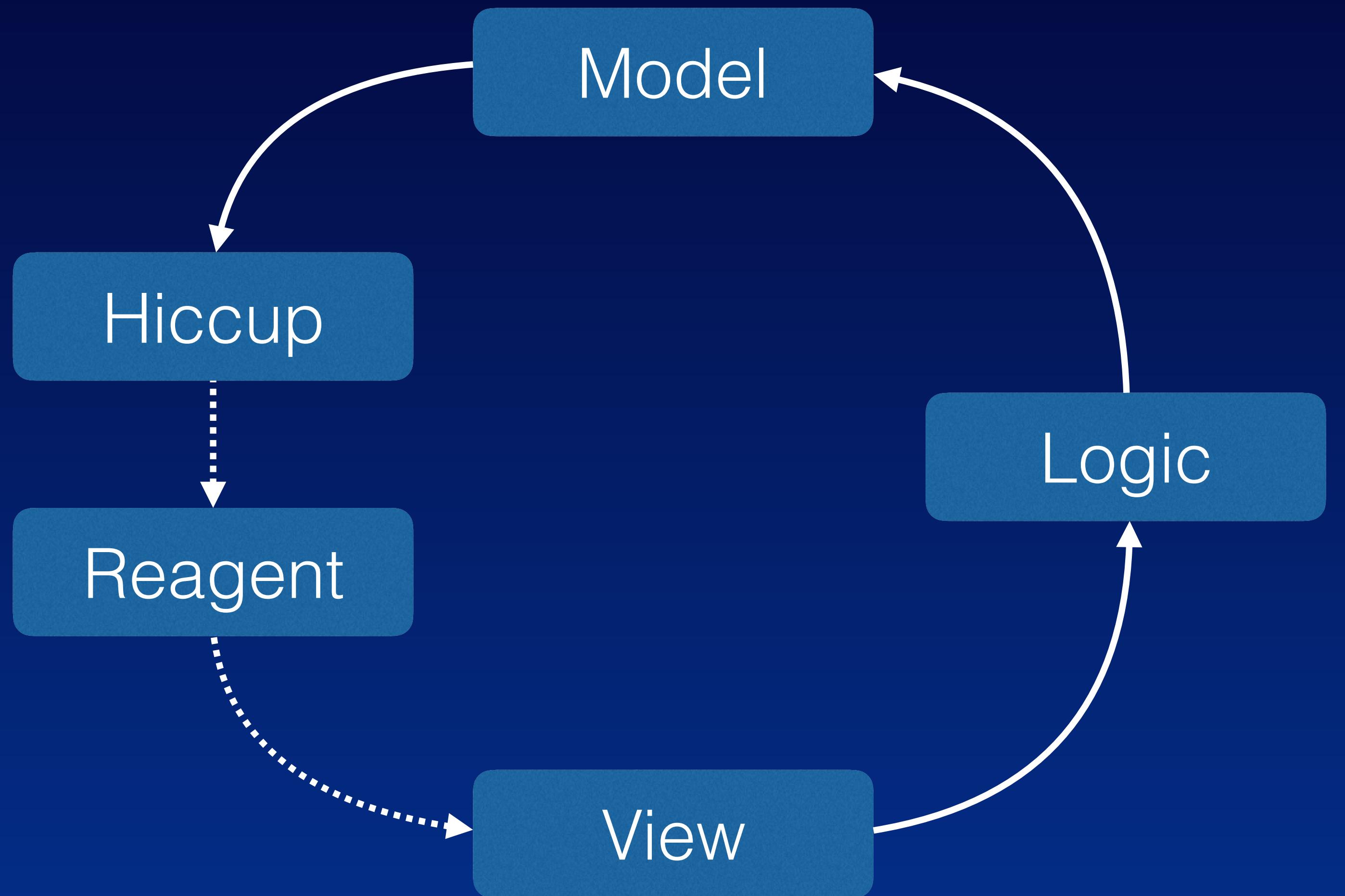
Winning cell sets: TODO - Draw the logic



Winning cell sets: TODO - Draw the logic



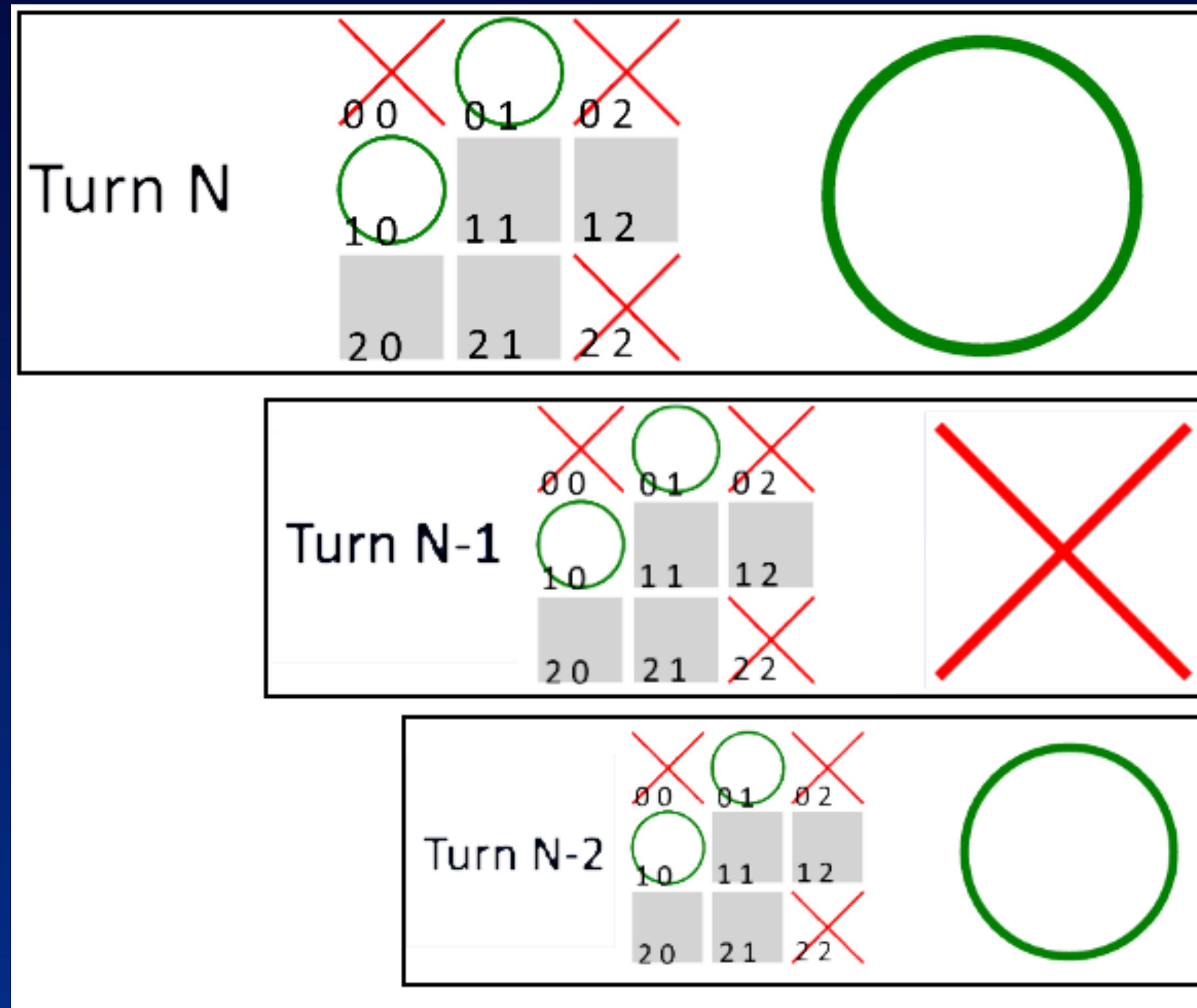
Live Code



- Simple
- Un seul d'état
- Testable
- Évènements métier

Le CTRL-Z

Etat = Succession de valeurs

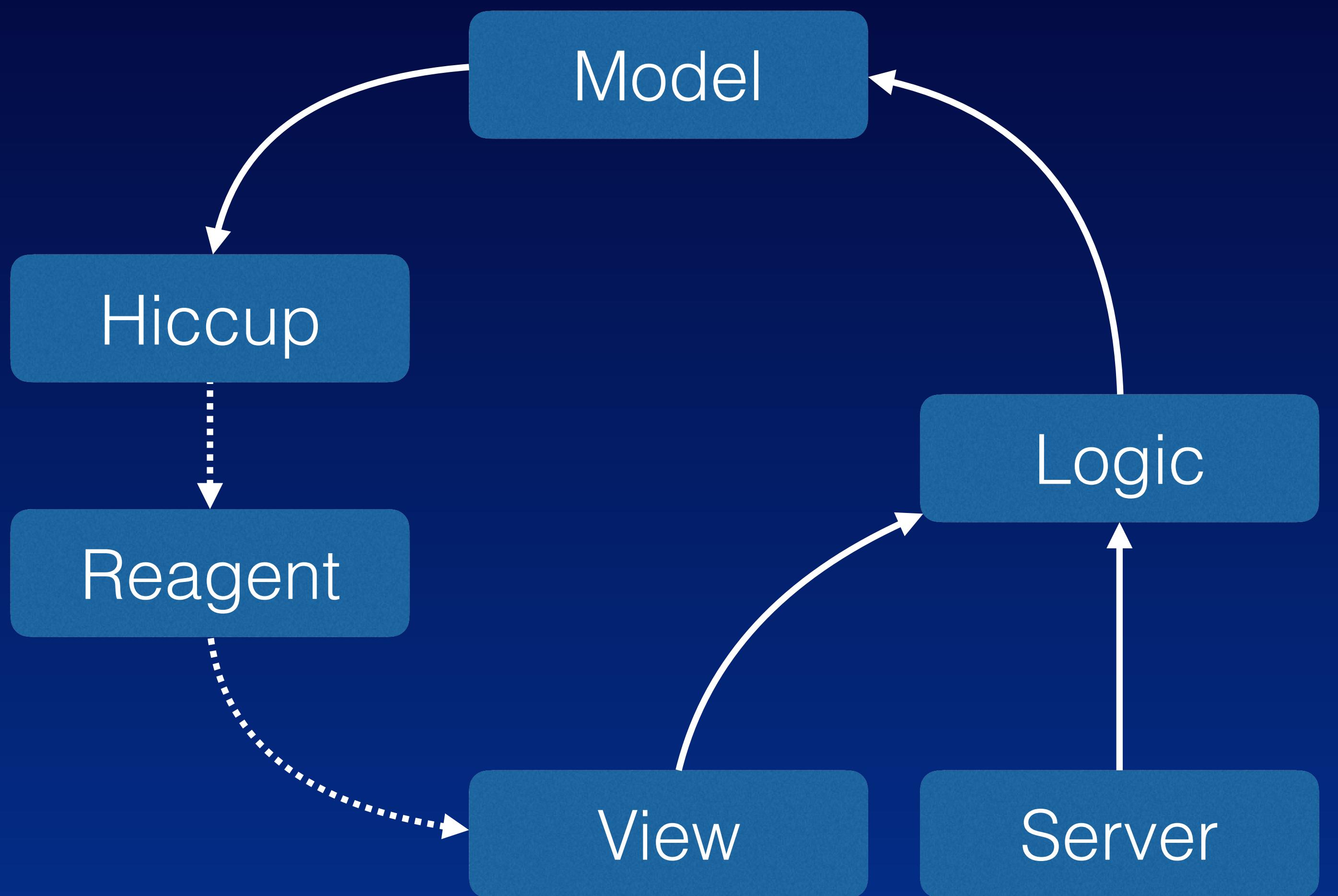


- Une catégorie entière de problèmes en moins
- Rejouable
- Observable
- Efficient

La programmation fonctionnelle, c'est ...

- Simple, Pratique, Productif
- Sources de patterns efficaces

Extending the Design



- Évènement serveur
- Découplé de la source
- Scalable
- Thread-safe



Merci

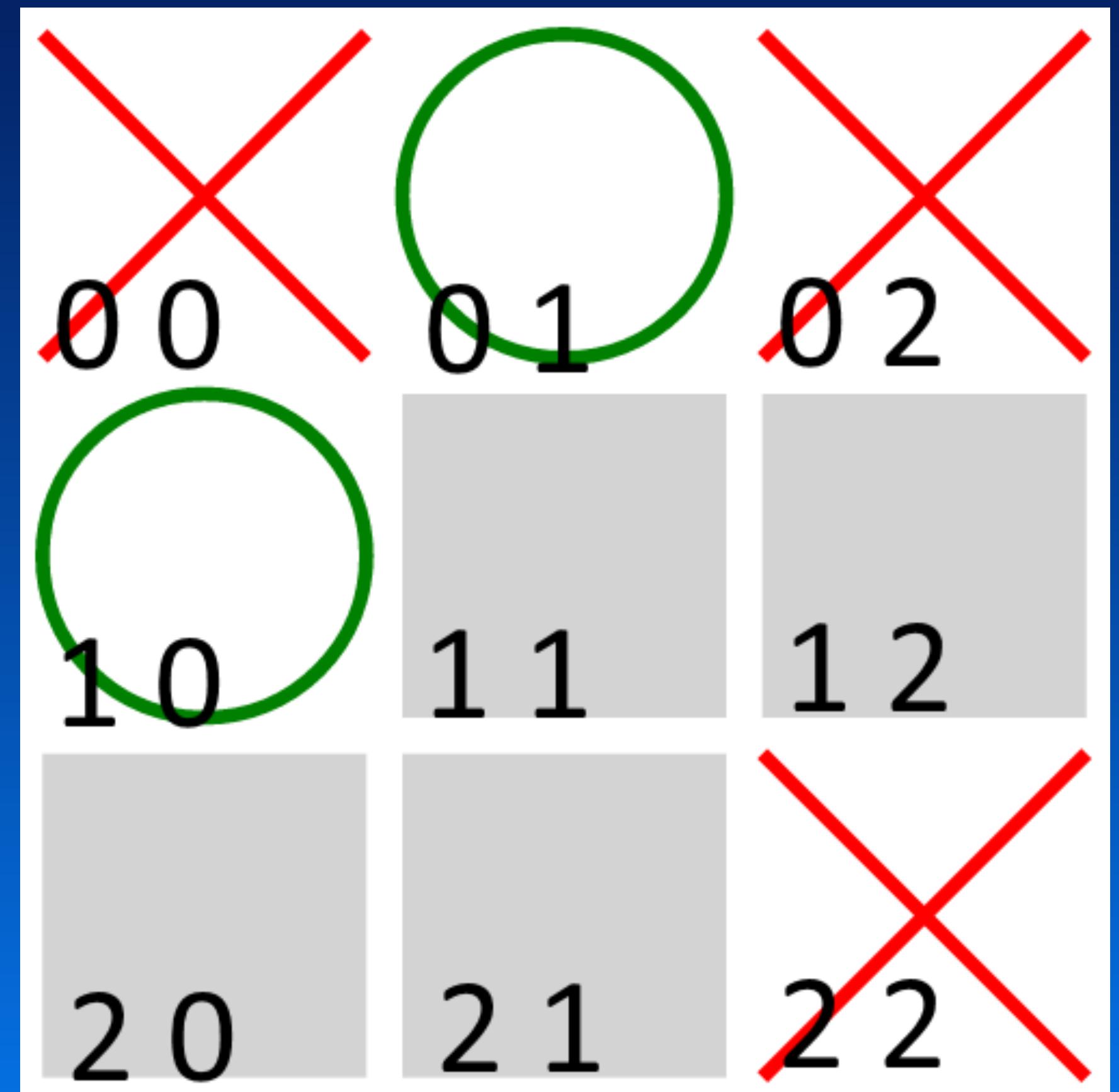
Resources & Lien GitHub:
[https://bitbucket.org/nicolas_martignole/
devoxxfr_2017_templates/overview](https://bitbucket.org/nicolas_martignole/devoxxfr_2017_templates/overview)

Clojure

- (((LISP)))
- Functional
- Clojure: JVM
- Clojurescript: JavaScript

Board

```
{ [ 0 1 ] :owner/none  
[ 0 0 ] :owner/circle  
[ 1 0 ] :owner/cross  
... }
```



Devoxx FR 2017 colors

primary color, #057FFA

secondary color, #03002E

third color, #033494

fourth color, #F2D279

Alternate 1 #F7D279

Alternate 2 #EDAF1F

Devoxx France 2017 Theme

Main title : Montserrat Extra Bold

Montserrat Light

Content and main font is Open Sans Regular

Use a fixed font for code like
Lucida Console Regular



#057FFA

Primary color



#03002E

Secondary color



#033494

Third color



#F7D279



#EDAF1F

Roadmap

This is a slide without background images.

You must load and install 2 Fonts on your system :

- Montserrat (<https://www.fontsquirrel.com/fonts/montserrat>)
- Open Sans (<https://www.fontsquirrel.com/fonts/open-sans>)

Qui sommes nous?

- Devoxx France runs on 3 days
- Audience loves live coding and demo
- Too much bullet points is super boring
- More text : less concentration from the audience that will just read your slides
- So this is exactly what you should not do

Devoxx FR 2017 colors

Live color chart here

<https://color.adobe.com/fr/DEvoxx-FR-2017-v3-color-theme-9311745/?>

Clojure en 5 min 28

Show me shome code !

Try to keep a font size as big as possible. Remember also that too much code on one slide is useless. The audience reads this texte and does not listen to your presentation anymore. Try to split on different slides your presentation.

If you show some code : BIG FONT please

Ask the audience i

Step 1 : add to Redis sorted set

```
127.0.0.1:6363[2]> zadd hackers 1953 "Richard Stallman"  
(integer) 1  
127.0.0.1:6363[2]>  
127.0.0.1:6363[2]> zadd hackers 1969 "Linus"  
(integer) 1  
127.0.0.1:6363[2]> zadd hackers 1912 "Alan turing"  
(integer) 1
```

Step 2 : Show the list of Hackers

```
127.0.0.1:6363[2]> zadd hackers 1953 "Richard Stallman"  
(integer) 1  
127.0.0.1:6363[2]>  
127.0.0.1:6363[2]> zadd hackers 1969 "Linus"  
(integer) 1  
127.0.0.1:6363[2]> zadd hackers 1912 "Alan turing"  
(integer) 1  
127.0.0.1:6363[2]> zrange hackers 0 -1  
1) "Alan turing"  
2) "Richard Stallman"  
3) "Linus"
```

See how we used transparent font to highlight step 2

Step 3 : Show the list with score

```
127.0.0.1:6363[2]> zadd hackers 1953 "Richard Stallman"  
(integer) 1  
127.0.0.1:6363[2]>  
127.0.0.1:6363[2]> zadd hackers 1969 "Linus"  
(integer) 1  
127.0.0.1:6363[2]> zadd hackers 1912 "Alan turing"  
(integer) 1  
127.0.0.1:6363[2]> zrange hackers 0 -1  
1) "Alan turing"  
2) "Richard Stallman"  
3) "Linus"  
127.0.0.1:6363[2]> zrange hackers 0 -1 withscores  
1) "Alan turing"  
2) "1912"  
3) "Richard Stallman"  
4) "1953"  
5) "Linus"  
6) "1969"
```

Step 4 : Last step with transparent code

```
127.0.0.1:6363[2]> zadd hackers 1953 "Richard Stallman"  
(integer) 1  
127.0.0.1:6363[2]>  
127.0.0.1:6363[2]> zadd hackers 1969 "Linus"  
(integer) 1  
127.0.0.1:6363[2]> zadd hackers 1912 "Alan turing"  
(integer) 1  
127.0.0.1:6363[2]> zrange hackers 0 -1  
1) "Alan turing"  
2) "Richard Stallman"  
3) "Linus"  
127.0.0.1:6363[2]> zrange hackers 0 -1 withscores  
1) "Alan turing"  
2) "1912"  
3) "Richard Stallman"  
4) "1953"  
5) "Linus"  
6) "1969"  
127.0.0.1:6363[2]> zrangebyscore hackers 1910 1940  
1) "Alan turing"
```

Live Demo

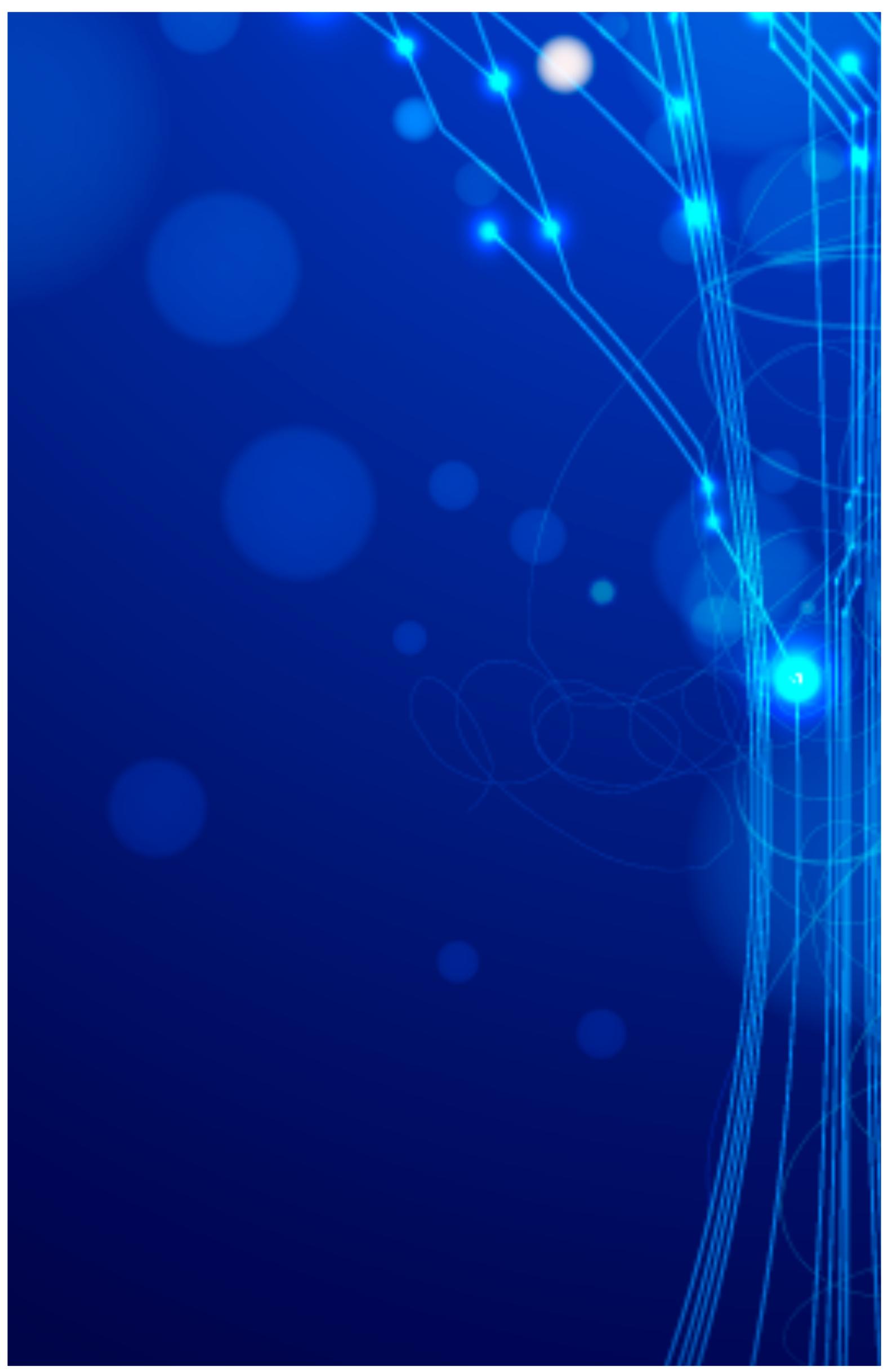
Merci / Thanks you

Facts

Devoxx France 2017

221 speakers with a badge, 40 exhibitors

and more than 2800 attendees



Less code is less bug

Why less slides is better than more slides

- Devoxx France runs on 3 days
- Audience loves live coding and demo
- Too much bullet points is super boring
- More text : less concentration from the audience that will just read your slides
- So this is exactly what you should not do

Pourquoi peu de diapositives c'est mieux

- Devoxx France se déroule sur 3 jours
- Le public préfère les démonstrations et l'écriture de code en direct
- Trop de points avec des puces c'est ennuyant
- Plus il y a de texte à lire sur vos diapos, moins l'audience vous écoute
- Si vos slides peuvent vous remplacer, alors vous ne servez à rien comme orateur
- Imaginez que votre ensemble de diapos ne doivent pas pouvoir vivre sans vous, sans votre présentation et votre contenu
- Merci donc de ne PAS faire comme ce slide à mourir

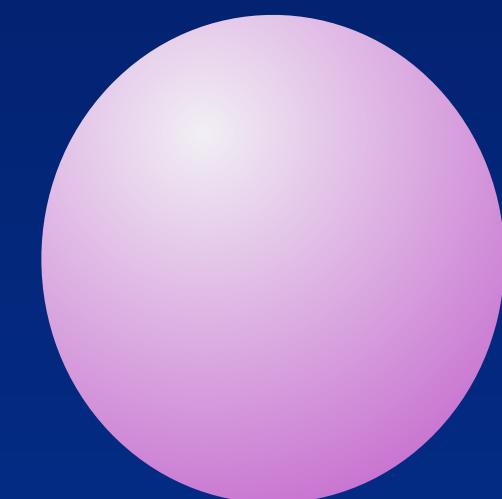
Toujours plus d'image

- Les diagrammes dynamiques c'est vraiment top

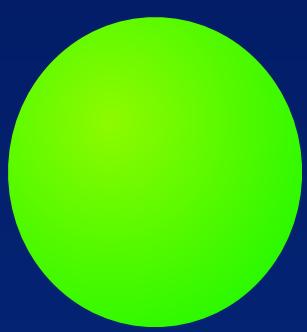


Redis Set

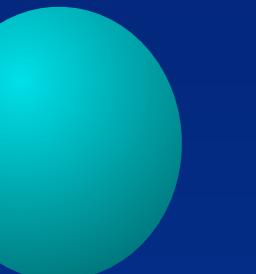
Speakers



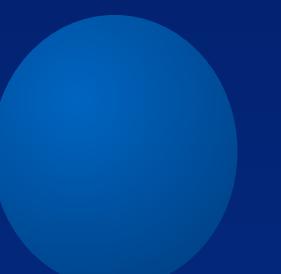
Selected



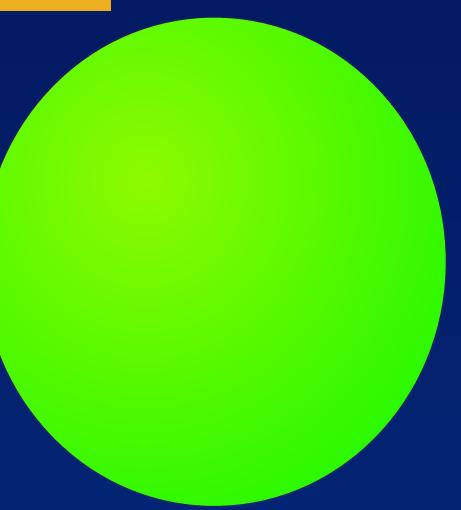
French



Java



Web



English



HMGET key field [field ...]

Available since 2.0.0.

Time complexity: O(N) where N is the number of fields being requested.

Returns the values associated with the specified fields in the hash stored at key.

For every field that does not exist in the hash, a nil value is returned. Because non-existing keys are treated as empty hashes, running [HMGET](#) against a non-existing key will return a list of nil values.

Return value

[Array reply](#): list of values associated with the given fields, in the same order as they are requested.

```
redis> HSET myhash field1 "Hello"
(integer) 1
redis> HSET myhash field2 "World"
(integer) 1
redis> HMGET myhash field1 field2 nfield
1) "Hello"
2) "World"
3) (nil)
redis>
```

Related commands

[HDEL](#)
[HEXISTS](#)
[HGET](#)
[HGETALL](#)
[HINCRBY](#)
[HINCRBYFLOAT](#)
[HKEYS](#)
[HLEN](#)
[HMGET](#)
[HMSET](#)
[HSCAN](#)
[HSET](#)
[HSETNX](#)
[HVALS](#)

<https://cfp.devoxx.fr>

- Here are just a few photos from Devoxx France so that you get a better idea of what you're about to live
- Voici quelques photos de Devoxx France afin de vous donner une idée de ce que vous vous apprêtez à vivre...

2015





2016

DEVOXX™ France

5ème édition - 20 au 22 avril 2016 - Paris



CFP 2016

788 sujets reçus pour 230 sélectionnés
9678 revues par 13 bénévoles + 58 Golden Tickets
2013 : 540 sujets
2014 : 671
2015 : 668

#DevoxxFR - @DevoxxFR





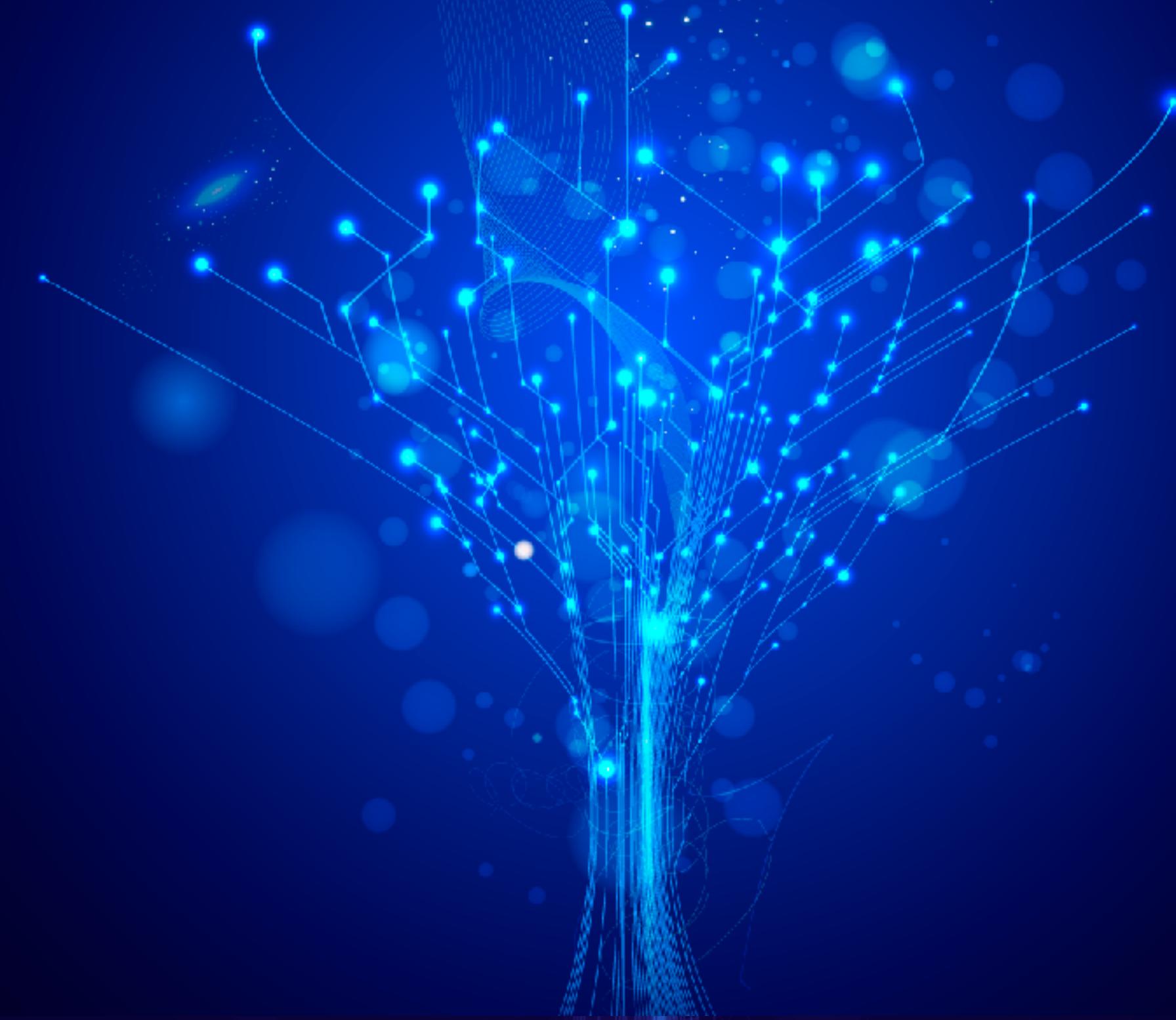


Thanks

Contribute and propose other templates on
[https://bitbucket.org/nicolas_martignole/
devoxxfr_2017_templates/overview](https://bitbucket.org/nicolas_martignole/devoxxfr_2017_templates/overview)

We love picture

DEVOXX™ France



We try to keep the Devoxx France logo and the Tweet
hashtag on all slides