

TDD with JavaScript

Test-driven JavaScript
programming workshop

November 3, 2011
Agile Tour Toronto

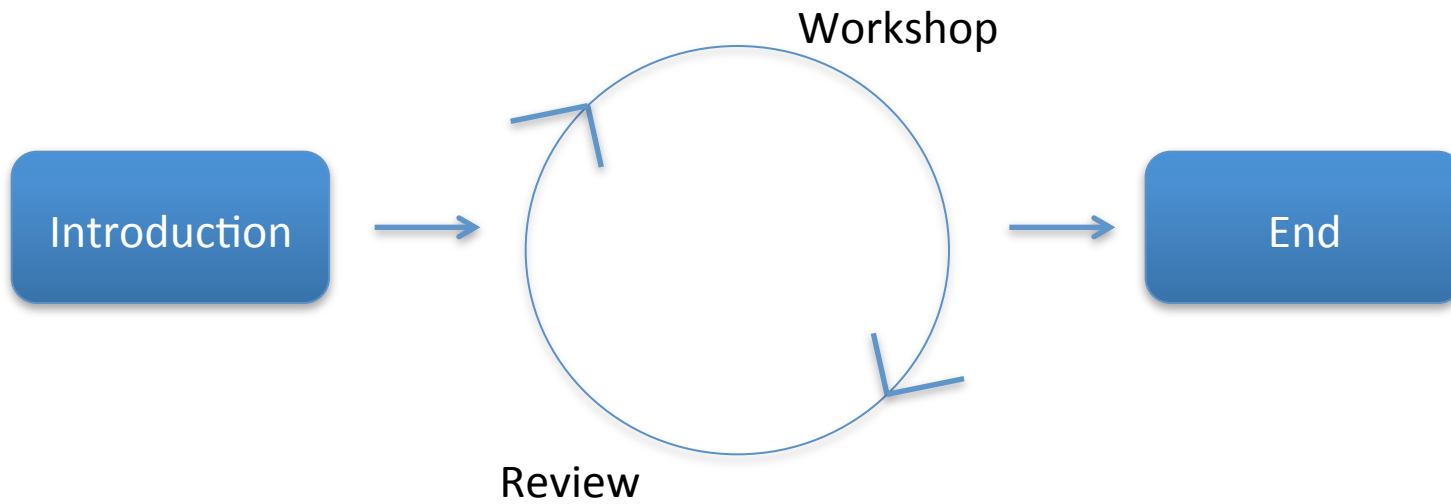


Objectives

At the end of the workshop, participants:

- Will know one way to write JavaScript code guided by tests
- Will know about the [@12meses12katas](#) initiative

Agenda



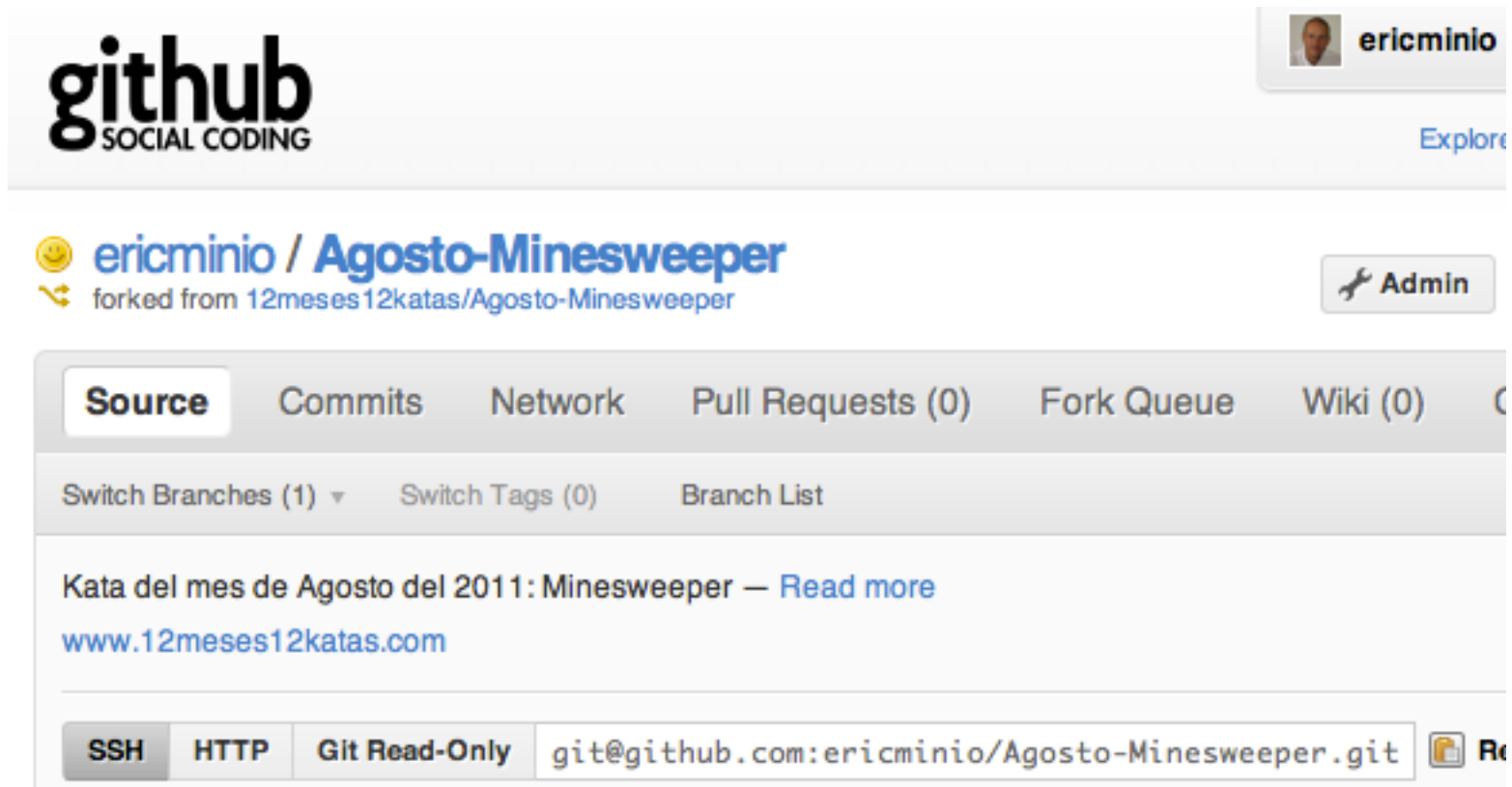


12meses12katas

Website/Blog <http://www.12meses12katas.com>

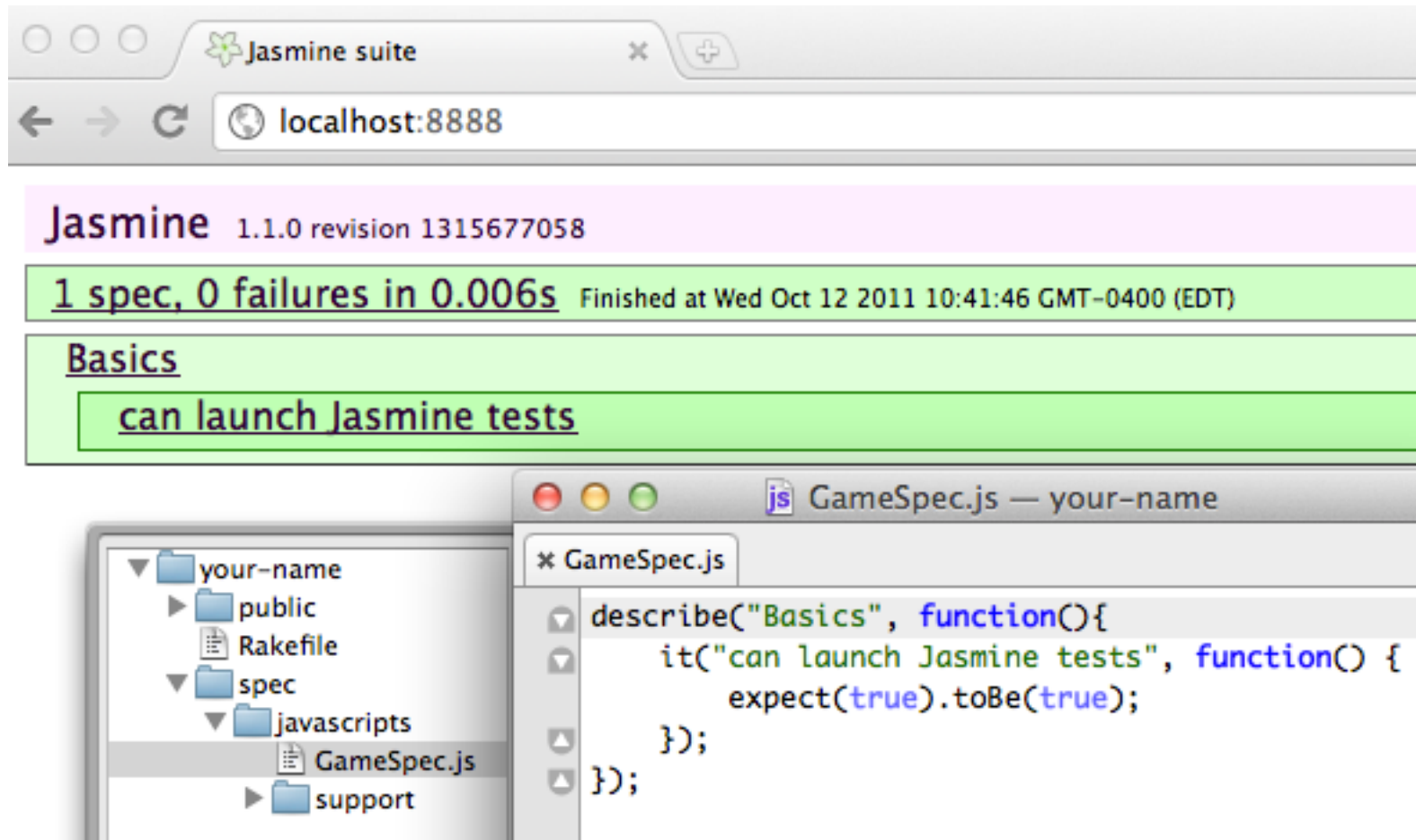
Member Since Jan 14, 2011

Ready!



The screenshot shows the GitHub interface for a repository. At the top left is the GitHub logo with the text "SOCIAL CODING". To the right is the user profile for "ericminio" with a small profile picture and a blue "Explore" link. Below this is the repository name "ericminio / Agosto-Minesweeper" in blue, with a yellow fork icon and the text "forked from 12meses12katas/Agosto-Minesweeper". To the right of the repository name is a grey "Admin" button with a wrench icon. Below the repository name is a navigation bar with tabs: "Source" (highlighted), "Commits", "Network", "Pull Requests (0)", "Fork Queue", and "Wiki (0)". Underneath the navigation bar are links for "Switch Branches (1)", "Switch Tags (0)", and "Branch List". The main content area shows a link to "Kata del mes de Agosto del 2011: Minesweeper" with a "Read more" link and the URL "www.12meses12katas.com". At the bottom is a box for cloning the repository, with tabs for "SSH", "HTTP", and "Git Read-Only". The "SSH" tab is selected, and the text "git@github.com:ericminio/Agosto-Minesweeper.git" is displayed next to a "Re" icon.

Set!



The image shows a web browser window with the title "Jasmine suite" and the address bar "localhost:8888". The browser displays the following content:

Jasmine 1.1.0 revision 1315677058

1 spec, 0 failures in 0.006s Finished at Wed Oct 12 2011 10:41:46 GMT-0400 (EDT)

Basics

can launch Jasmine tests

Below the browser window, a code editor window titled "GameSpec.js — your-name" is open. The code editor shows the following JavaScript code:

```
describe("Basics", function(){
  it("can launch Jasmine tests", function() {
    expect(true).toBe(true);
  });
});
```

The code editor also shows a file explorer on the left with the following structure:

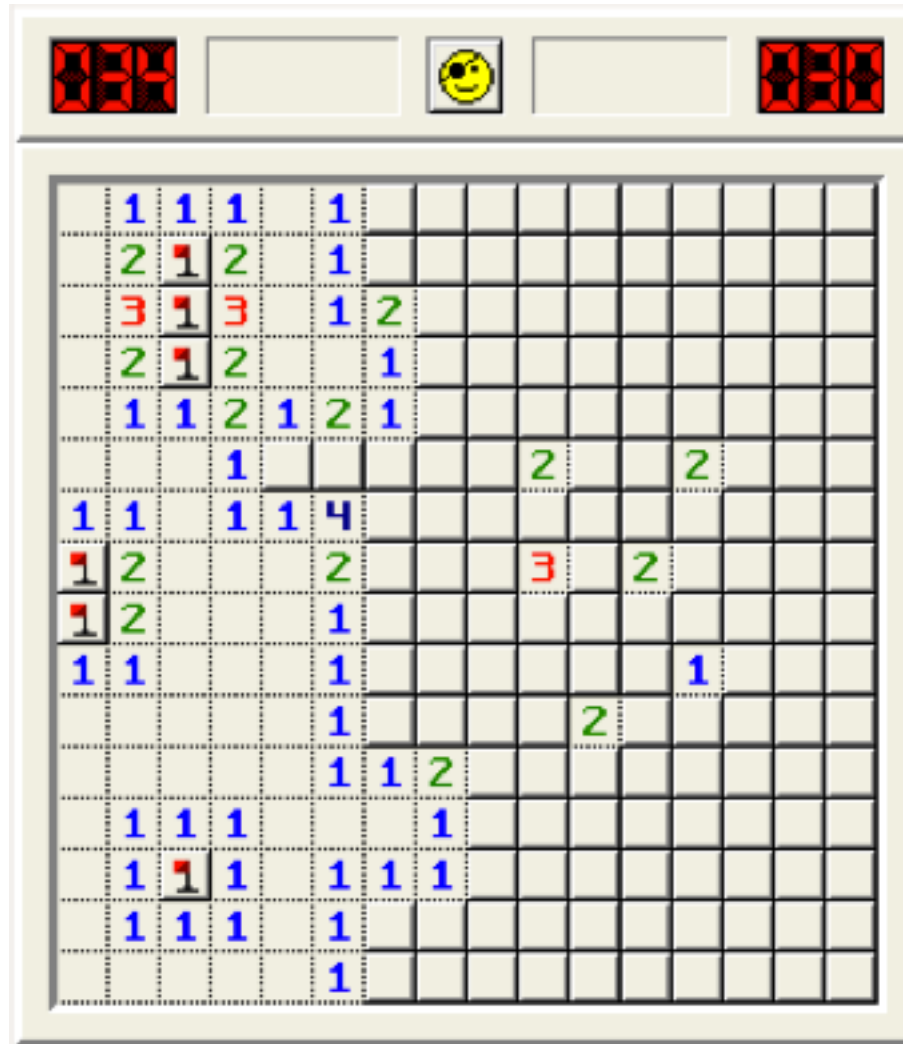
- your-name
 - public
 - Rakefile
 - spec
 - javascripts
 - GameSpec.js
 - support

Really ready?

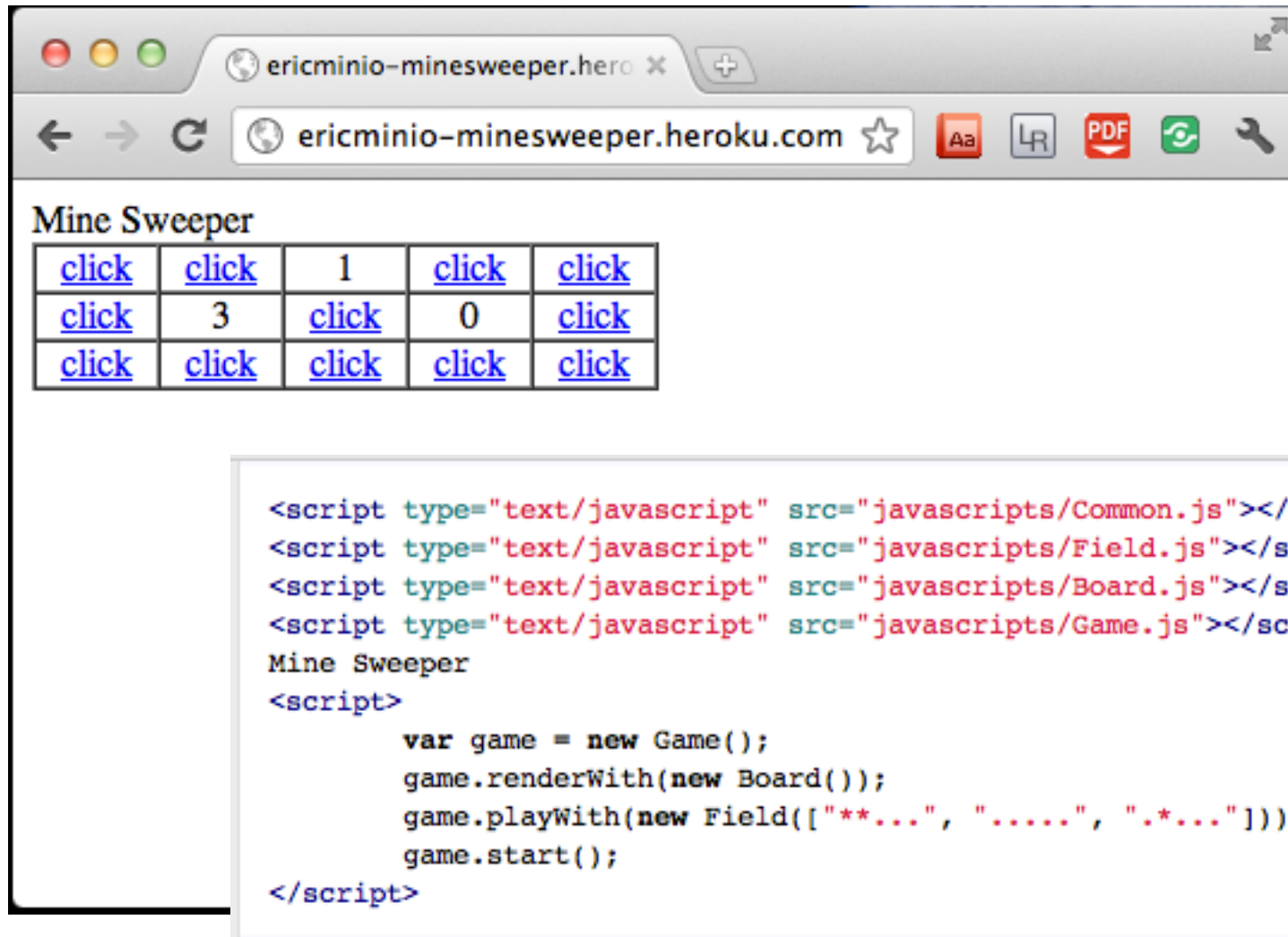
```
~/dev/Agosto-Minesweeper/your-name
GIT: master (check status)
Ready
git commit -m "start"
[master 34c1bc9] start
5 files changed, 142 insertions(+), 0 deletions(-)
create mode 100644 your-name/Rakefile
create mode 100644 your-name/spec/javascripts/GameSpec.js
create mode 100644 your-name/spec/javascripts/support/jasmine.yml
create mode 100644 your-name/spec/javascripts/support/jasmine_config.rb
create mode 100644 your-name/spec/javascripts/support/jasmine_runner.rb

~/dev/Agosto-Minesweeper/your-name
GIT: master
Ready
█
```

The Minesweeper game



A realistic objective



The image shows a browser window with the address bar containing "ericminio-minesweeper.herokuapp.com". The page title is "Mine Sweeper". The game board is a 3x5 grid of cells. Each cell contains either a number (1, 3, 0) or the word "click" in blue text with a red underline. Below the grid, a code block shows the HTML and JavaScript used to render the game.

click	click	1	click	click
click	3	click	0	click
click	click	click	click	click

```
<script type="text/javascript" src="javascripts/Common.js"></script>
<script type="text/javascript" src="javascripts/Field.js"></script>
<script type="text/javascript" src="javascripts/Board.js"></script>
<script type="text/javascript" src="javascripts/Game.js"></script>
Mine Sweeper
<script>
  var game = new Game();
  game.renderWith(new Board());
  game.playWith(new Field(["**...", "...", ".*..."]));
  game.start();
</script>
```

Go!

- Test first
- Test first!
- For instance, you could begin with exploring the model...

```
it("identifies mines", function(){
    expect(new Field(["*"]).hasMineAt(0,0)).toBe(true);
});
```

```
it("identifies no threat when no mine", function(){
    minesweeper.playWith(new Field(["."]));
    expect(minesweeper.threatAt(0, 0)).toBe(0);
});
```

- ... or the view

```
it("renders in one cell each place in field", function() {
    board.render(new Field(["."]));
    expect(document.getElementById("cell00")).toBeNull();
    expect(document.getElementById("cell01")).toBeNull();
});
```



Heads up for 5 minutes...

- How do you feel?
- What can you improve?
- Consider the following options:
 - Change partner
 - Start over

Heads up for 5 minutes...

- How do you feel?
- What can you improve?
- Consider the following options:
 - Change partner
 - **Start over**

The road is more interesting than the end.



Go!

- A new beginning
- Test first!
- New explorations are possible

```
describe("Game start", function() {  
  
    var game = new Game();  
    var field = new Field(["."]);  
    var renderer = new Board();  
  
    beforeEach(function(){  
        game.playWith(field);  
        game.renderWith(renderer);  
    });  
    afterEach(function() {  
        renderer.removeBoard();  
    });  
  
    it("tells the renderer to display the field", function() {  
        spyOn(renderer, 'render');  
        game.start();  
        expect(renderer.render).toHaveBeenCalledWith(field);  
    });  
});
```







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@12meses12katas

Un mes una kata, imejora tu arte y compártelo con los demás! :)

<http://www.12meses12katas.com>

 Envoyer follow 12meses12katas par SMS au [shortcode de votre opérateur](#)

 **Sulvre**

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¡Buenos días del 2 de Octubre Kateros! :) Ya está la Kata de este mes lista, a por ella!!! [12meses12katas.com](http://www.12meses12katas.com) :D

2 Oct



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Mañana será el día en el cuál se suban las Katas pendientes y se muestre la de Octubre, ¿estás preparado? :D

1 Oct

Thank you 😊

- Share your katas



- Share your code

