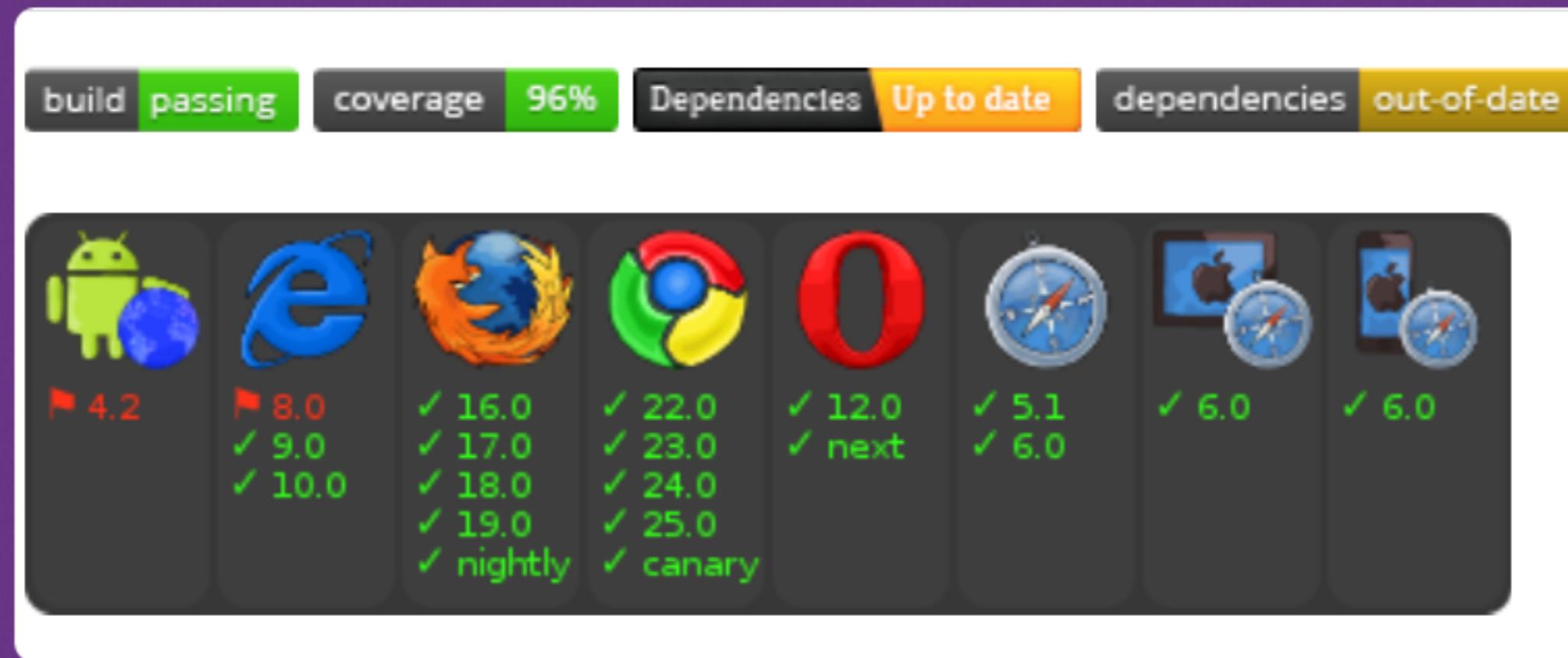
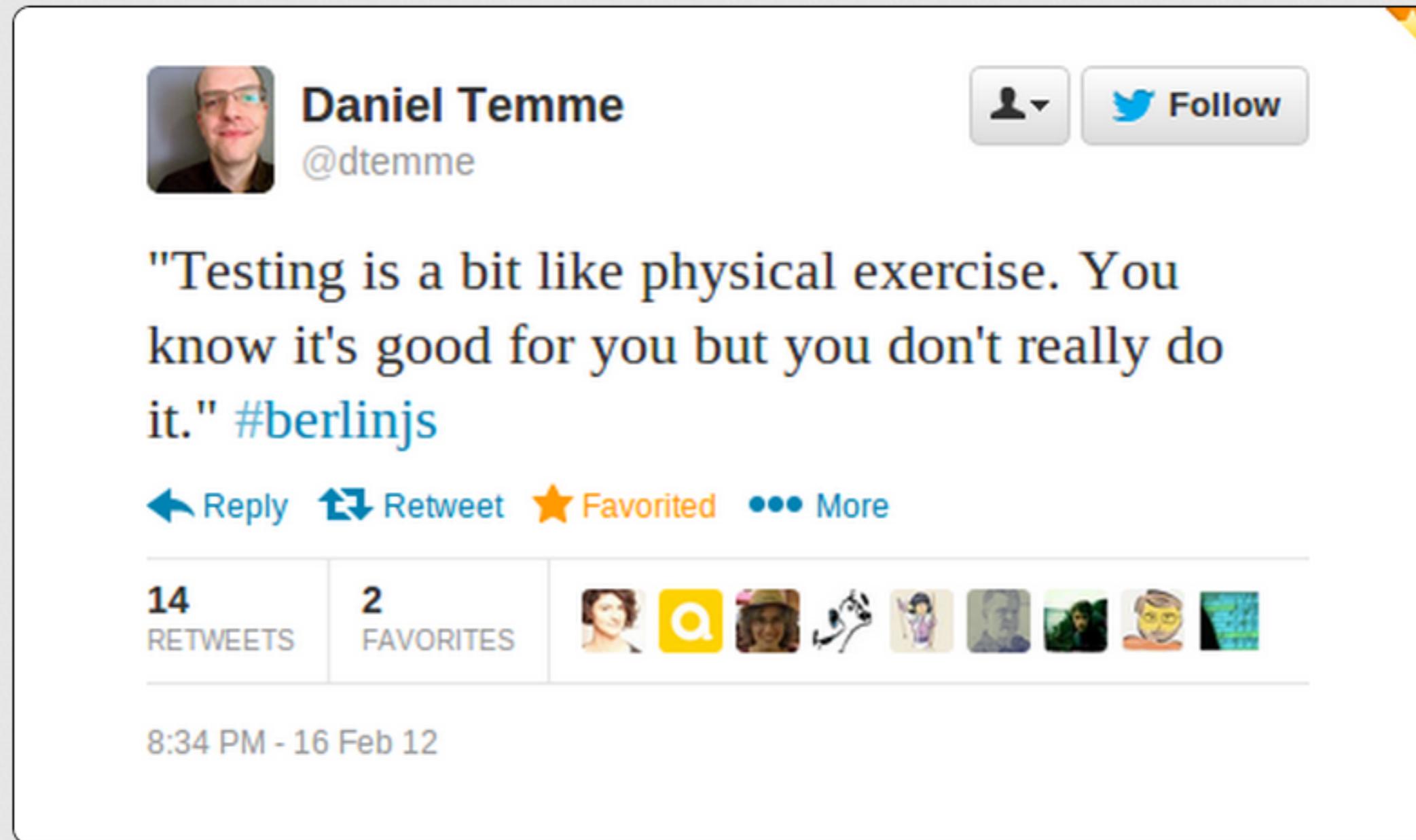


Testing

Dive Into Serious Coding



Intro



 **Daniel Temme** [@dtemme](#) User icon Follow F

"Testing is a bit like physical exercise. You know it's good for you but you don't really do it." [#berlinjs](#)

[Reply](#) [Retweet](#) [Favorited](#) [More](#)

14	RETWEETS	2	FAVORITES
----	----------	---	-----------

8:34 PM - 16 Feb 12

@dtemme

Overview

Software

Web

Use

Basic

Description

What is '*software testing*'?

Description

What is 'software testing'?

"[...] the process of validating & verifying that a software works as expected and can be implemented with the same characteristics, meeting the requirements that guided its design and development [...]"

- Summary: ***Wikipedia***

Description

What is 'software testing'?

"[...] the process of validating & verifying that a software works as expected and can be implemented with the same characteristics, meeting the requirements that guided its design and development [...]"

*- Summary: **Wikipedia***

Description

What is 'software testing'?

"[...] the process of validating & verifying that a software works as expected and can be implemented with the same characteristics, meeting the requirements that guided its design and development [...]"

- Summary: ***Wikipedia***

Description

What is 'software testing'?

"[...] the process of validating & verifying that a software works as expected and can be implemented with the same characteristics, meeting the requirements that guided its design and development [...]"

*- Summary: **Wikipedia***

Idea

Specification

Idea

Specification

Feedback

Idea

Specification

Feedback

Regression

Benefits

reliable

Benefits

reliable

maintainable

Benefits

reliable

maintainable

modular

Types

Unit Test

Types

Unit Test

Functional Test

Types

Unit Test

Functional Test

Integration Test

Types

Unit Test

Functional Test

Integration Test

Acceptance Test

Movement

agile workflow

Manifesto for Agile Software Development



We are uncovering better ways of developing software by doing it and helping others do it.
Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Kent Beck
Mike Beedle
Arie van Bennekum
Alistair Cockburn
Ward Cunningham
Martin Fowler

James Grenning
Jim Highsmith
Andrew Hunt
Ron Jeffries
Jon Kern
Brian Marick

Robert C. Martin
Steve Mellor
Ken Schwaber
Jeff Sutherland
Dave Thomas

Iteration

1.) Define the result

Iteration

- 1.) Define the result
- 2.) Split in modules

Iteration

- 1.) Define the result
- 2.) Split in modules
- 3.) Write an explicit test

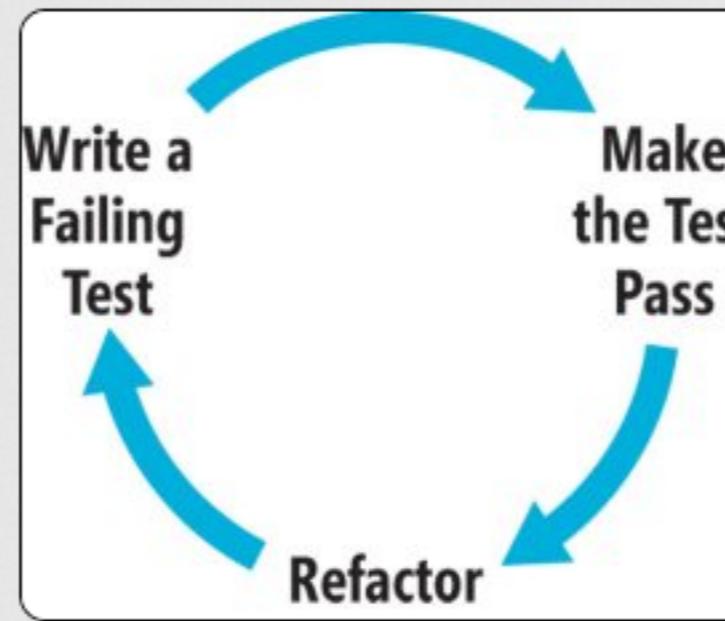
Iteration

- 1.) Define the result
- 2.) Split in modules
- 3.) Write an explicit test
- 4.) Code the function

Iteration

- 1.) Define the result
- 2.) Split in modules
- 3.) Write an explicit test
- 4.) Code the function
- 5.) Run the test

Flow



continuous updates

Methodology

Test Driven Development (TDD)

```
// title
suite('My first test', function(){

  // preparation
  setup(function(){
    foo = 'bar';
  });

  // definition
  test('Check a string', function(){
    assert.equal( foo, 'bar' );
  });

});
```

Idiom

"BDD is TDD done right"
- common meme

Methodology

Behavior Driven Development (BDD)

```
// title
describe('A simple test', function(){

  // preparation
  before(function(){
    arr = new Array(5);
  });

  // definition
  it('will be the size of 5', function(){
    expect( arr ).to.have.length(5);
    arr.should.have.length(5);
  });

});
```

Internet

Technologies

Front-End (Client)

Technologies

Front-End (Client)

Back-End (Server)

Browser

HTML - Content

Browser

HTML - Content

CSS - Styling

Browser

HTML - Content

CSS - Styling

JavaScript - Behavior

Level

Passive | Static Code Analysis

Level

Passive | Static Code Analysis

Active | Automatic Testing

Task

DOM Manipulation

Task

DOM Manipulation

Data Handling

Task

DOM Manipulation

Data Handling

Business Logic

Example

Write

[+] extract into modules (!= inline)

Write

- [+] extract into modules (!= inline)
- [+] separate JS from DOM

Write

- [+] extract into modules (!= inline)
- [+] separate JS from DOM
- [+] encapsule in objects

Write

[+] extract into modules (!= inline)

[+] separate JS from DOM

[+] encapsule in objects

[+] mock async / input

Write

- [+] extract into modules (!= inline)
- [+] separate JS from DOM
- [+] encapsule in objects
- [+] mock async / input
- [-] don't test one aspect **multiple times**

Tools

testing framework: mocha

assertion library: `chai`

mocking helper: [sinon](#)

testrunner: testem

transpiler: coffeescript

Demo

Todo-List



Questions & Discussion