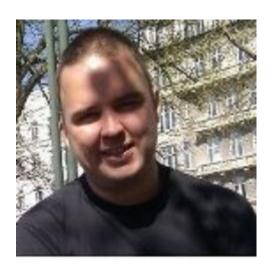# Practising TDD

With QUNIT from GRUNT

Hello!

- I'm Jacob . I'll be your grunt and qunit guide for tonight.
- You can follow me at twitter as @jacobandresen

Internet lesson

- The good guys wear white hats

Testing ~~ALL~~ Some of the things

- Qunit

- grunt

- phantomjs

Qunit

- ok(value, [message]);
- equal(actual, expected, [message]);
- notEqual(actual, expected, [message]);
- deepEqual(actual, expected, [message]);
- notDeepEqual(actual, expected, [message]);
- strictEqual(actual, expected, [message]);
- notStrictEqual(actual, expected, [message]);
- raises(block, [expected], [message]);

Test results in the browser

ReIndex API Test Suite

☐ Hide passed tests   ☐ Check for Globals   ☐ No try-catch

Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/32.0.1671.3 Safari/537.36

Tests completed in 5541 milliseconds.
27 assertions of 27 passed, 0 failed.

1. it can show a record (0, 9, 9) Rerun	284 ms
2. it can search (0, 1, 1) Rerun	470 ms
3. it can page results (0, 3, 3) Rerun	465 ms
4. it can restrict on author (0, 1, 1) Rerun	267 ms
5. it can restrict on subject (0, 1, 1) Rerun	720 ms
6. it can restrict on date (0, 1, 1) Rerun	271 ms
7. it can load facets (0, 5, 5) Rerun	465 ms
8. title can sort descending (0, 1, 1) Rerun	466 ms
9. title can sort ascending (0, 1, 1) Rerun	264 ms
10. author can sort descending (0, 1, 1) Rerun	264 ms
11. author can sort ascending (0, 1, 1) Rerun	474 ms

Qunit rigging

```html
1  <html>
2      <head>
3          <title>rxsearch test</title>
4          <meta charset="utf-8">
5          <link rel="stylesheet" href="../qunit.css">
6          <script src="../jquery.js"></script>
7          <script src="../qunit.js"></script>
8          <script type="text/javascript">
9              var rxsearch="http://jacob.reindex.net/BUF/rss/rxsearch.php";
10         </script>
11         <script src="search.js"></script>
12         <script src="facet.js"></script>
13         <script src="sort.js"></script>
14         <script src="thesaurus.js"></script>
15         <!-- <script src="xtarget.js"></script> -->
16         <!--    <script src="language.js"></script> -->
17     </head>
18     <body>
19         <h1 id="qunit-header">ReIndex API Test Suite</h1>
20         <h2 id="qunit-banner"></h2>
21         <div id="qunit-testrunner-toolbar"></div>
22         <h2 id="qunit-userAgent"></h2>
23         <ol id="qunit-tests"></ol>
24         <div id="qunit-fixture"></div>
25     </body>
26 </html>
```

API testing

```javascript
41  asyncTest("it can page results", function () {
42      var options = {
43          command: "search",
44          query:   "Barn",
45          start:   2,
46          num:     5
47      };
48
49      $.get(rxsearch,
50          options,
51          function (data) {
52              var xmlDoc = $.parseXML(data),
53                  $xml = $(xmlDoc),
54                  numberValue = $xml.find("num").text(),
55                  startValue = $xml.find("start").text(),
56                  items = $xml.find("item");
57              start();
58              equal(options.start, startValue, "found correct start value");
59              equal(options.num,   numberValue, "found correct num value");
60              equal(options.num,   items.length, "expected length");
61          });
62  });
63
```

Discovering qunit-contrib-grunt

- Git clone https://github.com/jquery/jquery-ui

- Cd jquery-ui

- npm install

- grunt

Grunt npm bootcamp

- git clone https://github.com/joyent/node
- git checkout v0.10.20-release
- cd node && ./configure && make
- sudo npm install –g grunt-cli
- cd [your-project] && npm init
- npm install grunt –save-dev

Yo jquery!

Phantomjs and grunt-contrib-qunit

- Available for manual install here: http://phantomjs.org/
- Webkit based test runner . No visible browser
- We'll run it via grunt-contrib-qunit

Configuring grunt for qunit

```
 1 module.exports = function (grunt) {
 2     grunt.initConfig({
 3         pkg: grunt.file.readJSON('package.json'),
 4         qunit: {
 5             api: {
 6 +----   5 lines: options: {------------------
11             }
12         },
13         phpunit: {
14 +---   6 lines: framework: {------------------
20             }
21     });
22     grunt.loadNpmTasks( "grunt-contrib-qunit" );
23     grunt.loadNpmTasks( "grunt-phpunit");
24     grunt.registerTask( "default", [ "qunit", "phpunit" ] );
25 }
```

Running from the command line

```
jacob@development1:~/www/test$ grunt
Running "qunit:api" (qunit) task
Testing http://jacob.reindex.net/test/js/api/index.html...............OK
>> 27 assertions passed (4719ms)

Running "phpunit:framework" (phpunit) task
Starting phpunit (target: framework) in /home/jacob/www/test/php/
PHPUnit 3.4.14 by Sebastian Bergmann.
```

That's all folks

@jacobandresen