MODERN WEB APPLICATION DEVELOPMENT WORKFLOW
FIRST, LET’S LOOK AT THE PAST
THROW A BUNCH OF HTML FILES
THROW A BUNCH OF HTML FILES

ADD A COUPLE OF CSS FILES
THROW A BUNCH OF **HTML** FILES

ADD A COUPLE OF **CSS** FILES

PUT SOME **JAVASCRIPT** IN ALL THIS
THROW A BUNCH OF **HTML** FILES

ADD A COUPLE OF **CSS** FILES

PUT SOME **JAVASCRIPT** IN ALL THIS

AND CALL IT A DAY...
COME BACK 6 MONTHS LATER

AND TRY TO REMEMBER HOW TO MAINTAIN YOUR CODE
Node.js ≠ Server-side JavaScript
Node.js
stand alone JavaScript runtime
Node.js
stand alone JavaScript runtime using v8, Chrome’s JavaScript engine
Node.js
stand alone JavaScript applications
Node.js
stand alone JavaScript applications
created by JavaScript developers
Node.js
stand alone JavaScript applications
created by JavaScript developers
for JavaScript developers
JAVASCRIPT DEVELOPMENT WORKFLOW
A GOOD DEVELOPMENT WORKFLOW - HELPS YOU GET STARTED
A GOOD DEVELOPMENT WORKFLOW

- HELPS YOU GET STARTED
- MAINTAINS YOUR DEPENDENCIES
A GOOD DEVELOPMENT WORKFLOW

- HELPS YOU GET STARTED
- MAINTAINS YOUR DEPENDENCIES
- ENFORCES BEST PRACTICES
A GOOD DEVELOPMENT WORKFLOW

- HELPS YOU GET STARTED
- MAINTAINS YOUR DEPENDENCIES
- ENFORCES BEST PRACTICES
- PREPARES YOUR TOOLS
A GOOD DEVELOPMENT WORKFLOW

- HELPS YOU GET **STARTED**
- MAINTAINS YOUR **DEPENDENCIES**
- ENFORCES **BEST PRACTICES**
- PREPARES YOUR **TOOLS**
- FIGHTS **REGRESSIONS**
A GOOD DEVELOPMENT WORKFLOW

- HELPS YOU GET STARTED
- MAINTAINS YOUR DEPENDENCIES
- ENFORCES BEST PRACTICES
- PREPARES YOUR TOOLS
- FIGHTS REGRESSIONS
- EASES THE RELEASE PROCESS
HOW TO GET STARTED?
YEOMAN

Born in 2012

Various contributors (Employees from Google, Twitter, etc)
YEOMAN scaffolding

- structure
- compilation
- static analysis
- dependencies management
- development tools
- unit testing
> npm install -g yo

“-g” global install
YEOMAN

Various generators:
- Angular
- Ember
- Backbone

And all the other popular frameworks...
> npm install -g generator-angular
create an Angular project

> yo angular
Select some dependencies

Welcome to Yeoman, ladies and gentlemen!

Out of the box I include Bootstrap and some AngularJS recommended modules.

[?] Would you like to use Sass (with Compass)? Yes
[?] Would you like to include Twitter Bootstrap? Yes
[?] Would you like to use the Sass version of Twitter Bootstrap? (Y/n) Y
Choose some options

PS C:\Users\sbegaudeau\Desktop\web2day2014> yo angular

Welcome to Yeoman, ladies and gentlemen!

Out of the box I include Bootstrap and some AngularJS recommended modules.

[?] Would you like to use Sass (with Compass)? Yes
[?] Would you like to include Twitter Bootstrap? Yes
[?] Would you like to use the Sass version of Twitter Bootstrap? Yes
[?] Which modules would you like to include?
[X] angular-resource.js
[X] angular-cookies.js
[X] angular-sanitize.js
[X] angular-route.js
It creates the project

create bower.json
create package.json
create Gruntfile.js
create app/images/yeoman.png
invoke angular:common:C:\Users\sbeaugeau\AppData\Roaming\npm\node_modules\generator-angular\app\index.js
create .bowerrc
create .editorconfig
create .gitattributes
create .jshintrc
create app\.buildignore
create app\.htaccess
create app\404.html
create app\favicon.ico
create app\robots.txt
create app\views\main.html
create test\jshintrc
create test\runner.html
create .gitignore
invoke angular:main:C:\Users\sbeaugeau\AppData\Roaming\npm\node_modules\generator-angular\app\index.js
create app\scripts\app.js
invoke angular:controller:C:\Users\sbeaugeau\AppData\Roaming\npm\node_modules\generator-angular\app\index.js
create app\scripts\controllers\main.js
create test\spec\controllers\main.js
It downloads half of the internet

```text
npm http 200 https://registry.npmjs.org/cookie/0.0.5
npm http 200 https://registry.npmjs.org/executable/-/executable-0.1.2.tgz
npm http 200 https://registry.npmjs.org/mout/-/mout-0.9.1.tgz
npm http 200 https://registry.npmjs.org/find-file/-/find-file-0.1.4.tgz
npm http 200 https://registry.npmjs.org/bln-check/-/bln-check-0.1.5.tgz
npm http 200 https://registry.npmjs.org/argparse
npm http GET https://registry.npmjs.org/pause/-/pause-0.0.1.tgz
npm http GET https://registry.npmjs.org/fresh/-/fresh-0.1.0.tgz
npm http GET https://registry.npmjs.org/cookie-signature/-/cookie-signature-1.0.1.tgz
npm http GET https://registry.npmjs.org/cookie/-/cookie-0.0.5.tgz
npm http GET https://registry.npmjs.org/formidable/-/formidable-1.0.14.tgz
npm http 200 https://registry.npmjs.org/formidable/-/formidable-1.0.14.tgz
npm http 200 https://registry.npmjs.org/cookie-signature/-/cookie-signature-1.0.1.tgz
npm http 200 https://registry.npmjs.org/fresh/-/fresh-0.1.0.tgz
npm http 200 https://registry.npmjs.org/cookie/-/cookie-0.0.5.tgz
npm http 200 https://registry.npmjs.org/pause/-/pause-0.0.1.tgz
npm http GET https://registry.npmjs.org/send/-/send-0.1.1
npm http GET https://registry.npmjs.org/buffer-crc32/-/buffer-crc32-0.2.1
npm http GET https://registry.npmjs.org/has-color
npm http GET https://registry.npmjs.org/ansi-styles
npm http 200 https://registry.npmjs.org/send/-/send-0.1.1
npm http 200 https://registry.npmjs.org/buffer-crc32/-/buffer-crc32-0.2.1
npm http GET https://registry.npmjs.org/send/-/send-0.1.1.tgz
npm http GET https://registry.npmjs.org/buffer-crc32/-/buffer-crc32-0.2.1.tgz
npm http 304 https://registry.npmjs.org/has-color
npm http 304 https://registry.npmjs.org/ansi-styles
npm http 200 https://registry.npmjs.org/send/-/send-0.1.1.tgz
npm http 200 https://registry.npmjs.org/buffer-crc32/-/buffer-crc32-0.2.1.tgz
```
It uses some dark magic

```bash
grunt-svgsafe@0.2.1 node_modules\grunt-svgsafe
  filesize@2.0.3
  chalk@0.3.0 (has-color@0.1.7, ansi-styles@0.2.0)
  svgj@0.3.7 (colors@0.6.2, whet.extend@0.9.9, sax@0.5.8, coa@0.3.9, js-yaml@3.0.2)

grunt-ngmin@0.8.3 node_modules\grunt-ngmin
  ngmin@0.4.1 (astral@0.1.0, clone@0.1.16, esprima@1.0.4, commander@1.1.1, astral-angular-annotate@0.0.2, escodegen@0.0.28)

grunt-contrib-jshint@0.7.2 node_modules\grunt-contrib-jshint
  jshint@2.3.0 (console-browserify@0.1.6, underscore@1.4.4, shelljs@0.1.4, minimatch@0.3.0, cli@0.4.5)

grunt-contrib-connect@0.5.0 node_modules\grunt-contrib-connect
  connect-livereload@0.2.0
  open@0.0.4

grunt-google-cdn@0.2.2 node_modules\grunt-google-cdn
  google-cdn@0.1.4 (debug@0.7.4, semver@2.0.11)
  bower@0.9.2 (abbrev@1.0.5, async@0.2.10, stable@0.1.5, nopt@2.0.0, semver@1.1.4, colors@0.6.2, mkdirp@0.3.5, archy@0.0.2, tmp@0.3, fstream@0.1.25, lodash@1.0.1, glob@3.1.21, tar@0.1.19, promptly@0.1.0, rc@0.0.8, read-package-json@0.1.13, unzip@0.1.7, update-package-json@0.3.1)

grunt-contrib-imagemin@0.3.0 node_modules\grunt-contrib-imagemin
  filesize@1.1.0
  chalk@0.2.1 (has-color@0.1.7, ansi-styles@0.2.0)
  optipng-bin@0.3.8 (chalk@0.4.0, bin-build@0.1.1, bin-wrapper@0.3.4)
  pngquant-bin@0.1.7 (chalk@0.4.0, bin-wrapper@0.2.4)
  gifsicle@0.1.1 (chalk@0.4.0, bin-wrapper@0.2.4)
  jpegtran-bin@0.2.6 (chalk@0.4.0, bin-wrapper@0.2.4)
```
Enjoy the view, Yeoman takes care of everything...
What does the result look like?
STRUCTURE
<doctype html>
<!DOCTYPE html>
<html class="no-js lt-ie9 lt-ie8 lt-ie7">
<!--[if IE]><!-->
<script src="//ajax.googleapis.com/ajax/libs/jquery/1.10.2/jquery.min.js"></script>
<script src="//netdna.bootstrapcdn.com/bootstrap/3.1.1/js/bootstrap.min.js"></script>
<![endif]-->
<head>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
<meta name="viewport" content="width=device-width, initial-scale=1, maximum-scale=1">
<meta http-equiv="content-type" content="text/html; charset=utf-8" />
<link rel="apple-touch-icon-precomposed" href="apple-touch-icon-precomposed.png">
<link rel="icon" type="image/png" href="favicon.png"/>
<link rel="stylesheet" href="bower_components/sass-bootstrap/css/bootstrap.css">
</head>
<body ng-app="eclipseApp">
<!--[if lt IE 7]>
<p class="browsehappy">You are using an <strong>outdated</strong> browser.
Please <a href="http://browsehappy.com">upgrade your browser</a> to improve your experience.</p>
<![endif]-->
<div>

Add your site or application content here -->

</div>
</body>
</html>
```json
{
  "name": "eclipsecon",
  "version": "0.0.0",
  "dependencies": {
    "angular": "1.2.6",
    "json3": "~3.2.6",
    "es5-shim": "~2.1.0",
    "jquery": "~1.10.2",
    "sass-bootstrap": "~3.0.2",
    "angular-resource": "1.2.6",
    "angular-sanitize": "1.2.6",
    "angular-route": "1.2.6"
  },
  "devDependencies": {
    "angular-mocks": "",
    "angular-scenario": ""
  }
}
```
IT’S MAGIC!

and it will be your job to maintain it...
HAPPY?
BUT HOW DOES IT WORK?
YEOMAN HAS FRIENDS
BOWER
GRUNT
AND OTHERS
DEPENDENCIES
MANAGEMENT
BOWER

Package manager for the web

Born in 2012

Created by Twitter and other contributors over time
> npm install -g bower
Find a package: bower search

PS C:\Users\sbegaudeau\Desktop\web2day2014> bower search jquery
Search results:

  jquery   git://github.com/jquery/jquery.git
  jquery-ui git://github.com/components/jqueryui
  jquery.cookie   git://github.com/carhartl/jquery-cookie.git
  jquery-placeholder   git://github.com/mathiasbynens/jquery-placeholder.git
  jquery-file-upload   git://github.com/blueimp/jQuery-File-Upload.git
  jasmine-jquery   git://github.com/velesin/jasmine-jquery
  jquery.ui   git://github.com/jquery/jquery-ui.git
  jquery-mousewheel   git://github.com/bradon/aaron/jquery-mousewheel.git
  jquery-waypoints   git://github.com/imakewebthings/jquery-waypoints.git
  jquery.scrollTo   git://github.com/flesler/jquery.scrollTo.git
 jquery.migrate   git://github.com/appleboy/jquery-migrate.git
  jquery.autosize   git://github.com/jackmoore/autosize.git
  jquery.validation   git://github.com/jzaefferer/jquery-validation.git
  jquery.bridget   git://github.com/desandro/jquery-bridget.git
  jquery.transit   git://github.com/rstacruz/jquery.transit.git
Find more information: bower info

```
PS C:\Users\sbegaudeau\Desktop\web2day2014> bower info jquery
bower jquery#* cached git://github.com/jquery/jquery.git#2.1.1
bower jquery#* validate 2.1.1 against git://github.com/jquery/jquery.git#

{
  name: 'jquery',
  version: '2.1.1',
  main: 'dist/jquery.js',
  license: 'MIT',
  ignore: [
    '*/.*',
    'build',
    'speed',
    'test',
  ]
```
BOWER  Add a specific dependency

> bower install jquery#1.10.2 --save

install jquery and save this new dependency
BOWER

runtime dependencies in bower.json
```json
{
  "name": "eclipsecon",
  "version": "0.0.0",
  "dependencies": {
    "angular": "1.2.6",
    "json3": "~3.2.6",
    "es5-shim": "~2.1.0",
    "jquery": "~1.10.2",
    "sass-bootstrap": "~3.0.2",
    "angular-resource": "1.2.6",
    "angular-sanitize": "1.2.6",
    "angular-route": "1.2.6"
  },
  "devDependencies": {
    "angular-mocks": "",
    "angular-scenario": ""
  }
}
```
BOWER Add all your dependencies

> bower install
See your dependencies: bower list

PS C:\Users\sbegaudeau\Desktop\web2day2014> bower list
bower check-new   Checking for new versions of the project dependencies..
web2day2014#0.0.0 C:\Users\sbegaudeau\Desktop\web2day2014
  angular#1.2.6 (latest is 1.3.0-build.2795+sha.222d473)
    angular-mocks#1.2.6 (latest is 1.3.0-build.2795+sha.222d473)
      angular#1.2.6 (latest is 1.3.0-build.2795+sha.222d473)
      angular-resource#1.2.6 (latest is 1.3.0-build.2795+sha.222d473)
        angular#1.2.6
        angular-route#1.2.6 (latest is 1.3.0-build.2795+sha.222d473)
          angular#1.2.6
          angular-sanitize#1.2.6 (latest is 1.3.0-build.2795+sha.222d473)
            angular#1.2.6
            angular-scenario#1.2.6 (latest is 1.3.0-build.2795+sha.222d473)
              angular#1.2.6
              es5-shim#2.1.0 (latest is 3.4.0)
                jquery#1.10.2 (latest is 2.1.1)
                json3#3.2.6 (latest is 3.3.1)
                sass-bootstrap#3.0.2
                jquery#1.10.2 (2.1.1 available)
Package management always comes with its set of problems:
Package management always comes with its set of problems:
- how can I create a new package?
BOWER

Package management always comes with its set of problems:
- how can I create a new package?
- how can I host a bower repository?
Create a bower package: bower init

```
PS C:\Users\sbegaudeau\Desktop\web2day> bower init

[?] name: web2day
[?] version: 1.0.0
[?] description: web2day application project
[?] main file: web2day.js
[?] what types of modules does this package expose? es6
[?] keywords: web2day, awesome
[?] authors: Stéphane Bégaudeau <stephane.begaudeau@gmail.com>
[?] license: MIT
[?] homepage: http://web2day-nantes.org
[?] set currently installed components as dependencies? No
[?] add commonly ignored files to ignore list? (Y/n) Y
```
Use bower with Git

> bower install https://myrepository.git
BOWER Host multiple versions

> git tag -a 1.4 -m 'version 1.4'

> bower install https://myrepository.git#1.4
> bower install jquery
> bower install git://github.com/jquery/jquery.git
BOWER Registry

https://github.com/bower/registry

A simple web server listing Git repository URLs
BOWER Register

> bower register myrepository https://...git

> bower install myrepository
EQUALLY POWERFUL
GRUNT is a bit older so its ECOSYSTEM is more mature
Grunt and Gulp

development tools dependencies in package.json

>npm install
GRUNT
grunt.initConfig({
    lint: {
        src: 'src/<%= pkg.name %>.js'
    },
    concat: {
        src: [
            '<banner:meta.banner>',
            '<file_strip_banner:src/<%= pkg.name %>.js>'
        ],
        dest: '<%= pkg.name %>.js'
    }
});
GRUNT

Configuration in Gruntfile.js
Global install before Grunt 0.4

Updating Grunt cannot break existing projects anymore
GRUNT gruntfile.js structure

3 parts:
- Task loading
- Task configuration
- Task registration
GRUNT

An example: Static code analysis with JSHINT
GRUNT
HOW DO YOU USE IT?

> grunt

> grunt jshint:all
GULP
gulp.src('src/main.mycss')
  .pipe(stylus())
  .pipe(rename({ ext: 'css' }))
  .pipe(autoprefixer())
  .pipe(cssmin())
  .pipe(header('/* All Right Reserved */'))
  .pipe(gulp.dest('dist'))
GULP

Configuration in Gulpfile.js
GULP gulpfile.js structure

3 parts:
- task loading
- task configuration
- task registration
GULP

```javascript
'use strict';

var gulp = require('gulp');
var wiredep = require('wiredep').stream;

// Load plugins
var $ = require('gulp-load-plugins')();

// Scripts
gulp.task('scripts', function () {
  return gulp.src('app/scripts/**/*.js')
    .pipe($.jshint('.jshintrc'))
    .pipe($.jshint.reporter('default'))
    .pipe($.size());
});

// Default task
gulp.task('default', function () {
  gulp.start('scripts');
});
```
GULP differences with Grunt

node.js streams (asynchronous by nature)

nice and simple api

less IO operations
BUILD TASKS
STATIC ANALYSIS

grunt-contrib-jshint
gulp-jshint

Detect coding errors in your JavaScript files
STATIC ANALYSIS

Various style of reports (checkstyle, html, etc)
Configuration in .jshtinrc
MINIFICATION

grunt-contrib-uglify
gulp-uglify

Reduce the size of JavaScript files
CSS TRIMMING

grunt-uncss
gulp-uncss-task

Remove unused CSS rules
TESTING

Frameworks: Jasmine & QUnit
Runner: Karma
Code Coverage: Istanbul
LIVE RELOAD

grunt-contrib-watch
gulp-livereload

Reload automatically the web application if some files have been changed
Orion

Eclipse project

Introduced in 2011 in the Eclipse Foundation
Orion

Two versions: Jetty or Node.js
npm install orion

code node node_modules/orion/server.js
/projectpath
Projects

- NHL Stadiums
  - Stadiums of the National Hockey League
  - tabletop at github.com

Onion Content

- bootstrap
  - 17/30614 21:38:20
- OnionEndToEnd
  - 17/30614 21:34:02
- tabletop
  - 17/30614 21:39:04
PROJECTS MANAGEMENT
NHL Stadiums
Stadiums of the National Hockey League

Git

Git URL
https://github.com/jarthon/OrionEndToEnd.git

Git Status
Git Status

OrionEndToEnd
Tutorial on end to end web application development with Orion.

This tutorial is based around four stages:
1. Create a project in the cloud and store it in a repository
2. Add content to the project - the libraries and references to other services our project will consume
3. Modify content - Wire the data, create the JavaScript objects that will interpret the data, style the application
function buildContent(data) {
    var twitterLogo = "https://abs.twimg.com/a/1382598364/images/resources/twitter-bird-blue-on-white.png";
    var contentString = '<table class="table table-bordered">' + '
        <tbody>
            <tr><th colspan="2">Team</th></tr>
            <tr><td colspan="2">Website</td></tr>
            <tr><td colspan="2">Stadium</td></tr>
            <tr><td colspan="2">Capacity</td></tr>
        <tbody>
    return contentString;
}

function append(data) {
    var container = document.getElementById('table');
    var wrapper = document.createElement('tr');
    var content = buildContent(data);
    wrapper.innerHTML = content;
    container.appendChild(wrapper);
}

function showInfo(data) {
    var spreadsheet = 'https://docs.google.com/spreadsheet/pub?key=ABQIAgNh3xP9h9JdWxK3d3JZYB13ZEd9fUJX4GKsC8H';
    var callback = function() {
        // TableTop.init({ key: spreadsheet, callback: showInfo });
    }
}
function buildContent(data) {
  // Build content information about a single team on a map
  var twitterLogo = "https://abs.twimg.com/a/1382598364/images/resources/twitter-bird-blue-on-white.png";
  var contextString = '<table class="table table-bordered">' +
    '<thead>
    <tr>' +
      '<th>Team</th>
    </tr>
    </thead>
    <tbody>
    <tr' +
      '>' +
    '('</td><td>' +
    '</td+'</tr>
    </tbody>
    </table>
  
  var stadium = data.stadium;
  var stadiumImage = "https://abs.twimg.com/a/1382598364/images/resources/twitter-bird-blue-on-white.png";

  container.appendChild(data)

  var container = document.getElementById('tables');
  var wrapper = document.createElement('div');
  var content = buildContent(data, wrapper).
    innerHTML + content;

  container.appendChild(wrapper);

  function showInfo(data) {
    // Display team information on the map
    // Use data to display information such as
    // team name, logo, and stadium
  }
FIRST CLASS

GIT SUPPORT
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8"/>
  <title>Title</title>
  <link rel="stylesheet" href="bootstrap.min.css"/>
  <script src="bootstrap.min.js"></script>
  <script src="tabletop.js"></script>
  <link rel="stylesheet" href="sportmapper.css"/>
  <script src="sportmapper.js"></script>
</head>
<body class="tablebackground">
  <div id="tables">
  
  
</div>
</body>
</html>
OrionEndToEnd

Tutorial on end to end web application development with Orion.

This tutorial is based around four stages.

1. Create a project in the cloud, and store it in a repository.
2. Add content to the project - the libraries and references to other services our project will consume.
3. Modify content - wire the data, create the javascript objects that will interpret the data, store the application.
4. Deploy - store the code, transfer the software to a server.

The software we're going to build will read and interpret a published Google Spreadsheet of data that details the names and locations of stadiums in a professional sports league.

The software will display the locations of the stadiums as pins on a Google map, that we can open up and find out more things about. We'll build a little mashup of the information with a Twitter search to see what people are saying about the stadiums.
This tutorial is based around four stages:

1. Create a project in the cloud, and store it in a repository.
2. Add content to the project - the libraries and services that will interact with the other services our project will consume.
3. Modify content - Wire the data, create the javascript objects that will interpret the data, store the application.
4. Deploy - store the code, transfer the software to a server.

The software we're going to build will read and interpret a published Google Spreadsheet of data that details the names and locations of stadiums in a professional sports league. The software will display the locations of the stadiums as pins on a Google map, that we can open up and find out more things about. We'll build a little mashup of the information with a Twitter search to see what people are saying about the stadiums.
SEARCH
Tabletop - 2 matches

Files 1/2 of matching Tabletop

1. sportmapper.js (2 matches)
   - Initialize with Tabletop.init:
     ```javascript
     var Tabletop = function (options) {
       // Constructor logic...
     }
     ```
   - Tabletop callbacks:
     ```javascript
     Tabletop.callbacks = new Tabletop.callbacks();
     ```
   - Tabletop callbacks:
     ```javascript
     Tabletop.callbacks = new Tabletop.callbacks();
     ```
   - Tabletop prototype:
     ```javascript
     Tabletop.prototype = {
       // Prototype logic...
     }
     ```
   - If simpleSheet === true, then don't return an array of Tabletop tables:
     ```javascript
     if (simpleSheet === true) {
       // Simple sheet logic...
     }
     ```
   - Load all worksheets of the spreadsheet, turning each into a Tabletop Model:
     ```javascript
     var model = new TabletopModel();
     ```
   - Parse a single list-based worksheet turning it into a Tabletop Model:
     ```javascript
     var model = new TabletopModel();
     ```
PLUGINS
Commands:

- cd - Changes the current directory
- cfo - Commands for interacting with a Cloud Foundry compatible target
- clear - Clears the shell screen
- edit - Edits a file
- help - Get help on the available commands
- ls - Lists the files in the current directory
- npm - Commands for interacting with node npm
- plugins - Commands for working with plug-ins
- pwd - Prints the current directory location
- service - Commands for working with a service

plugins list:
- Arduino
- C
- Cloud Foundry
- Cloud Foundry Deploy
- Cpp
- Git Blame Plugin
- Lua
- Orion CSS Tool Support
- Orion CSSLint Support
- Orion File Service
- Orion Git Support
- Orion HTML Tool Support
- Orion Image Viewer Plugin
- Orion Java Tool Support
- Orion JavaScript Tool Support
- Orion JSLint Service
- Orion JSON Editor Plugin
- Orion NPM
- Orion Page Links
- Orion PHP Tool Support
- Orion Preferences
- Orion Projects
- Orion Python Tool Support
- Orion Ruby Tool Support
- Orion Search Page Service
public class Main {
    public static void main(String[] args) {
        System.out.println(args);
    }
}
READY TO DEPLOY
Started at http://test8.orionhub.org:8080
Stadiums of the National Hockey League
DOCKER SUPPORT SOON
WHAT ABOUT ECLIPSE?
Back-end

Lot of tooling for Java development

Jetty, EclipseLink, Webtools, etc
Front-end

...
WHAT ABOUT OTHERS?
Gruntfile.js

```
module.exports = function(grunt)

  // Load the grunt tasks provided by Grunt.
  grunt.loadTasks('tasks/');

  // Custom tasks.
  grunt.registerTask('default', ['connectTest', 'karma']);

  grunt.registerTask('build', [
    'clean:dist',
    'useminPrepare',
    'concurrent:dist',
    'autoprefixer',
    'concat',
    'copy:dist',
    'cdnify',
    'ngmin',
    'cssmin',
    'uglify',
    'rev',
    'rev-html',
    'usemin'  // The `usemin` task is done last to allow the merging of files
  ]);  // +(Gruntfile.js:14)
```

Grunt

```
+ Gruntfile.js   ×
   ▼ Alias tasks
     + build
       ▼ Tasks
         ▼ autoprefixer
         ▼ dist
         ▼ cdnify
         ▼ dist
         ▼ clean
         ▼ dist
```

```
Gruntfile.js (-/WebStormProjects/dashboard.angularjs.org)
```

```
alias: ['default:build', 'build:production'],
```

```
```

Running "usemin:css" (usemin) task
Processing as CSS - dist/styles/bb8468c5.main.css
Update the CSS with new img filenames

Done, without errors.
Process finished with exit code 0
```
Back-end

Lot of tooling for Java development

Jetty, EclipseLink, Webtools, etc
<table>
<thead>
<tr>
<th>Description</th>
<th>Resource</th>
<th>Path</th>
<th>Location</th>
<th>Type</th>
</tr>
</thead>
</table>

**General Information**

This section describes general information about this project.

- **Project Name:** Angular
- **Description:** Test project
- **Version:** 1.0.0
- **Keywords:** angular, nodejs
- **Main:** app/app.js

**Project Management**

This section describes the metadata of the project.

- **Homepage:**
- **Author:** Stéphane Bégiaudeau
- **Repository Type:** Git
- **Repository URL:**
- **License Type:** EPL
- **License URL:** https://www.eclipse.org/legal/epl-v10.html

**Directories**

This section describes general information about this project.

- **Libraries:**
- **Binaries:**
- **Manual:**
- **Documentation:**
- **Examples:**

**Architecture**

This section describes general information about this project.

- **Operating System:**
- **CPU:**

**Project Content**

This section describes general information about this project.

- **Development Dependencies:**
- **Engines:**
TO SUM UP
THANKS!

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