

What is Nightwatch

 build success nightwatch v1.1.11 Weekly downloads 155k+ author Jagadeesh Shetty

Nightwatch.js is an automated testing framework for web applications and websites, written in Node.js and using the [W3C WebDriver](#) API (formerly [Selenium WebDriver](#)).

It is a complete End-to-End testing solution which aims to simplify writing automated tests and setting up Continuous Integration. Nightwatch can also be used for writing Node.js unit and integration tests.

The name Nightwatch was inspired by the famous painting The Night Watch by Dutch artist Rembrandt van Rijn. The masterpiece is prominently displayed in the Rijksmuseum, in Amsterdam - The Netherlands.

Overview of WebDriver

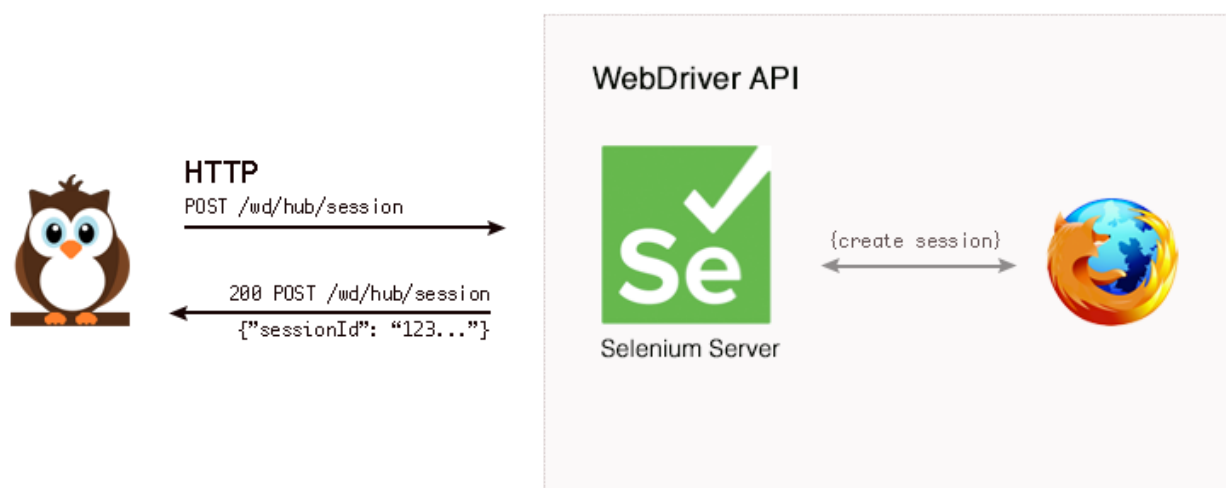
WebDriver is a general purpose library for automating web browsers. It was started as part of the [Selenium](#) project, which is a popular and comprehensive set of tools for browser automation initially written for Java but now with support for most programming languages.

Nightwatch uses the [WebDriver API](#) to perform the browser automation related tasks, like opening windows and clicking links for instance.

WebDriver is now a W3C specification aiming to standardize browser automation. WebDriver is a remote control interface that enables introspection and control of user agents. It provides a platform and a restful HTTP api as a way for web browsers to be remotely controlled.

Theory of Operation

Nightwatch works by communicating over a restful HTTP API with a WebDriver server (such as ChromeDriver or Selenium Server). The protocol is defined by the W3C WebDriver spec, which is derived from [JSON Wire protocol](#). See below for an example workflow for browser initialization.



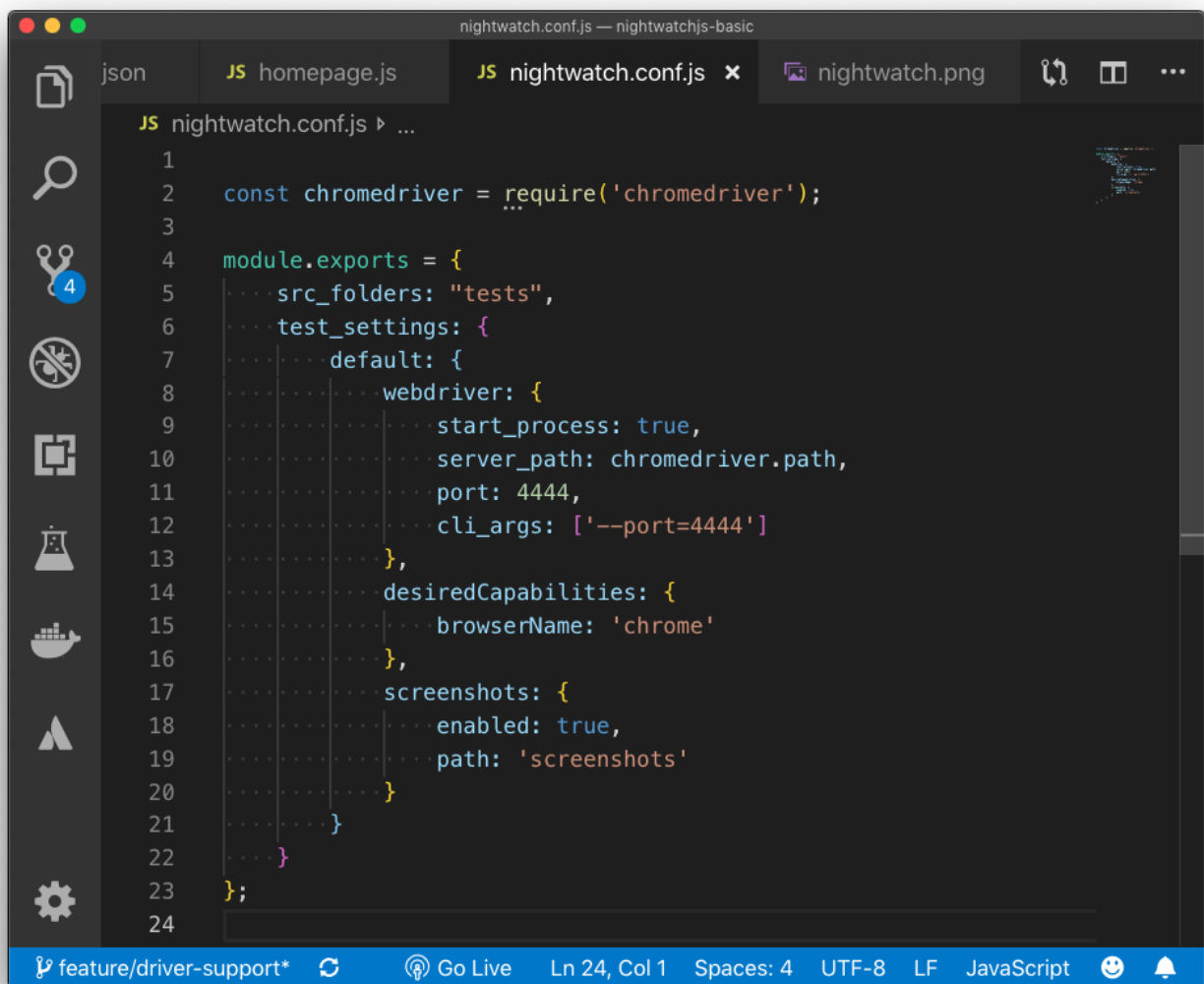
Most of the times, Nightwatch needs to send at least 2 requests to the WebDriver server in order to perform a command or assertion. ...The first one being the request to locate an element given a CSS selector (or Xpath expression) ...Next to perform the actual command/assertion on the given element.

Setup

1. **Node.js** should be installed.
2. **NPM** should be installed.
3. Create a directory with **nightwatchjs-basic** name.
4. Run **npm init** and complete with basic details.
5. Run **npm install nightwatch** to install nightwatch within workspace.
6. Download **selenium** and **chrome** drivers and copy to **bin** directory.
7. Create **nightwatch.json** file within working directory. The nightwatch test runner binary expects a configuration file.
8. Create **tests** directory and create **homepage.js** file.
9. Update **package.json** with test runner for **scripts** value.

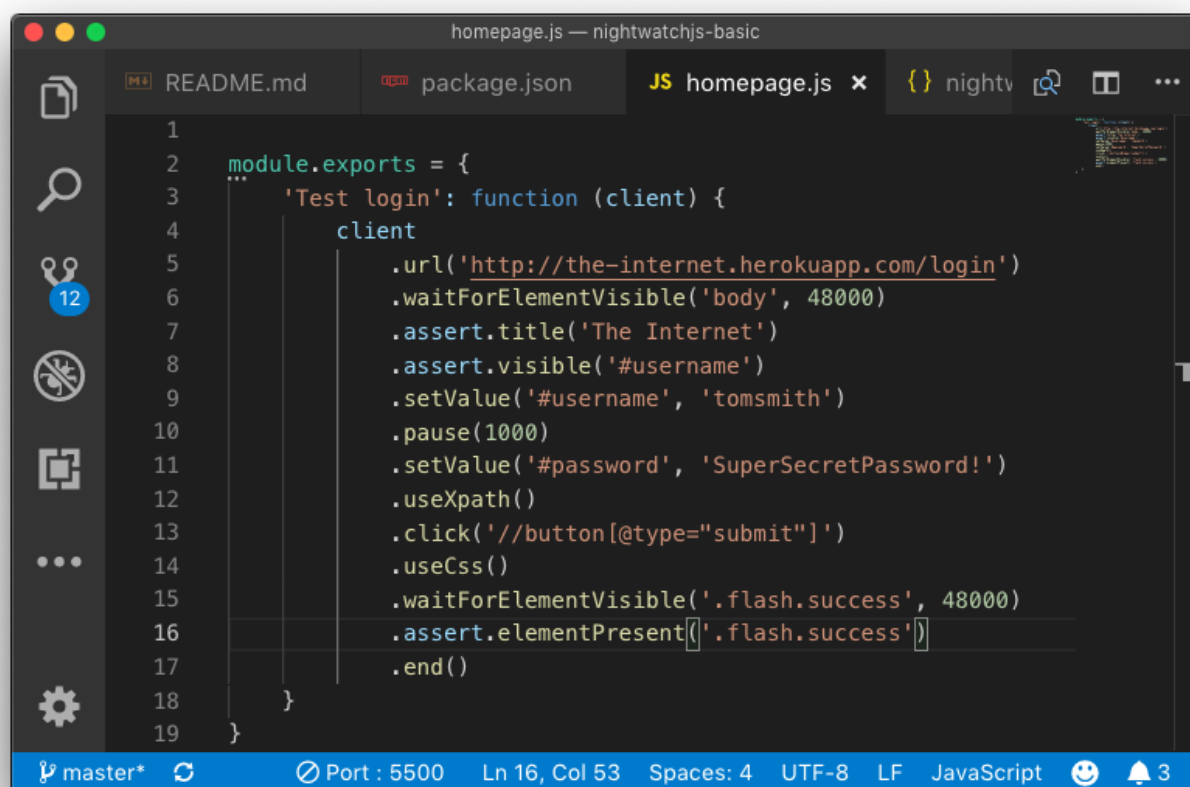
Screenshots

nightwatch.conf.js



```
1
2  const chromedriver = require('chromedriver');
3
4  module.exports = {
5    src_folders: "tests",
6    test_settings: {
7      default: {
8        webdriver: {
9          start_process: true,
10         server_path: chromedriver.path,
11         port: 4444,
12         cli_args: ['--port=4444']
13       },
14       desiredCapabilities: {
15         browserName: 'chrome'
16       },
17       screenshots: {
18         enabled: true,
19         path: 'screenshots'
20       }
21     }
22   };
23
24
```

tests/homepage.js

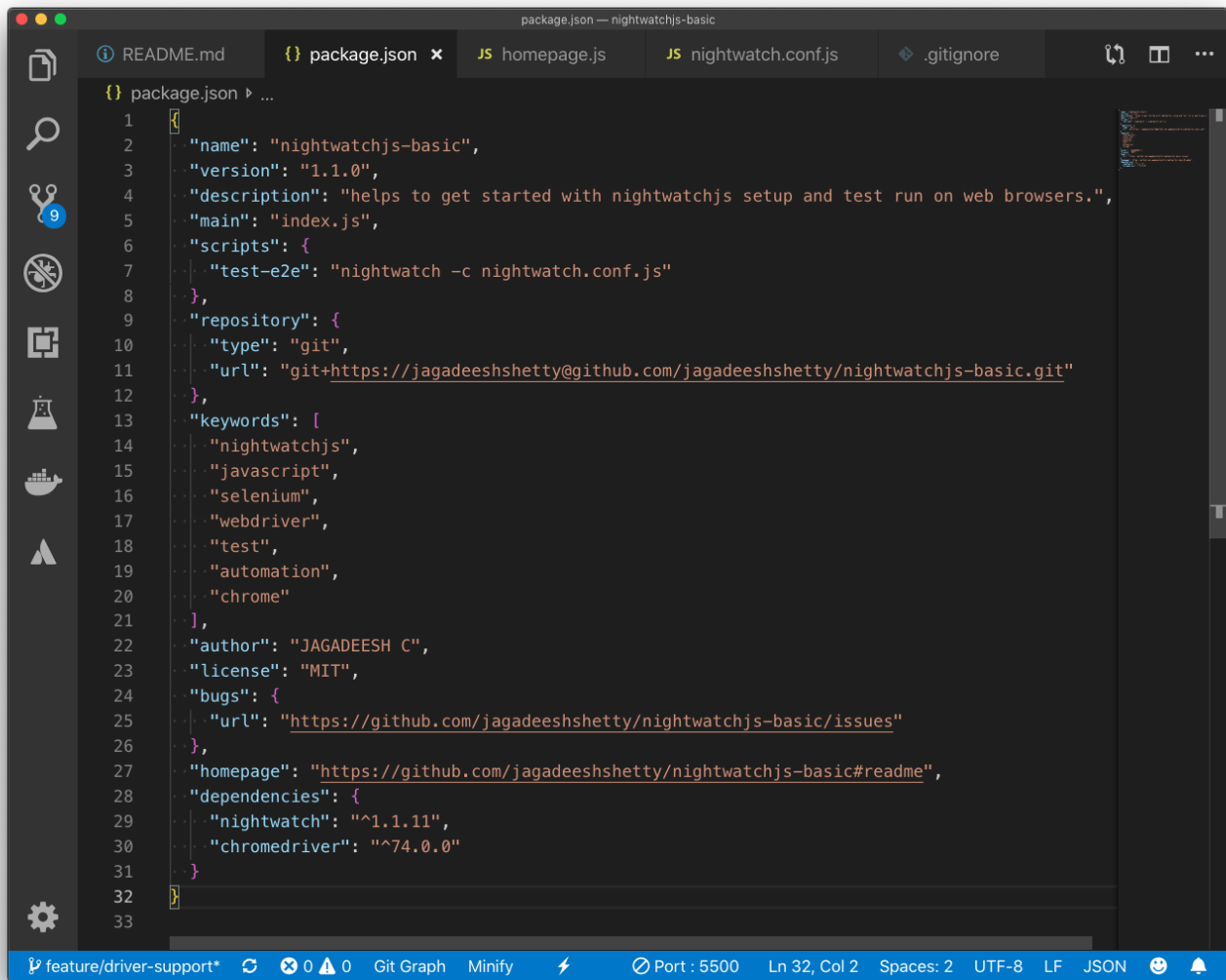


The screenshot shows a code editor window titled "homepage.js — nightwatchjs-basic". The editor has tabs for "README.md", "package.json", and "homepage.js". The "homepage.js" tab is active, displaying a Nightwatch.js test script. The script is as follows:

```
1
2 module.exports = {
3   'Test login': function (client) {
4     client
5       .url('http://the-internet.herokuapp.com/login')
6       .waitForElementVisible('body', 48000)
7       .assert.title('The Internet')
8       .assert.visible('#username')
9       .setValue('#username', 'tomsmith')
10      .pause(1000)
11      .setValue('#password', 'SuperSecretPassword!')
12      .useXpath()
13      .click('//button[@type="submit"]')
14      .useCss()
15      .waitForElementVisible('.flash.success', 48000)
16      .assert.elementPresent(['.flash.success'])
17      .end()
18   }
19 }
```

The editor's status bar at the bottom shows "master*", "Port : 5500", "Ln 16, Col 53", "Spaces: 4", "UTF-8", "LF", "JavaScript", and a notification bell with the number 3.

package.json



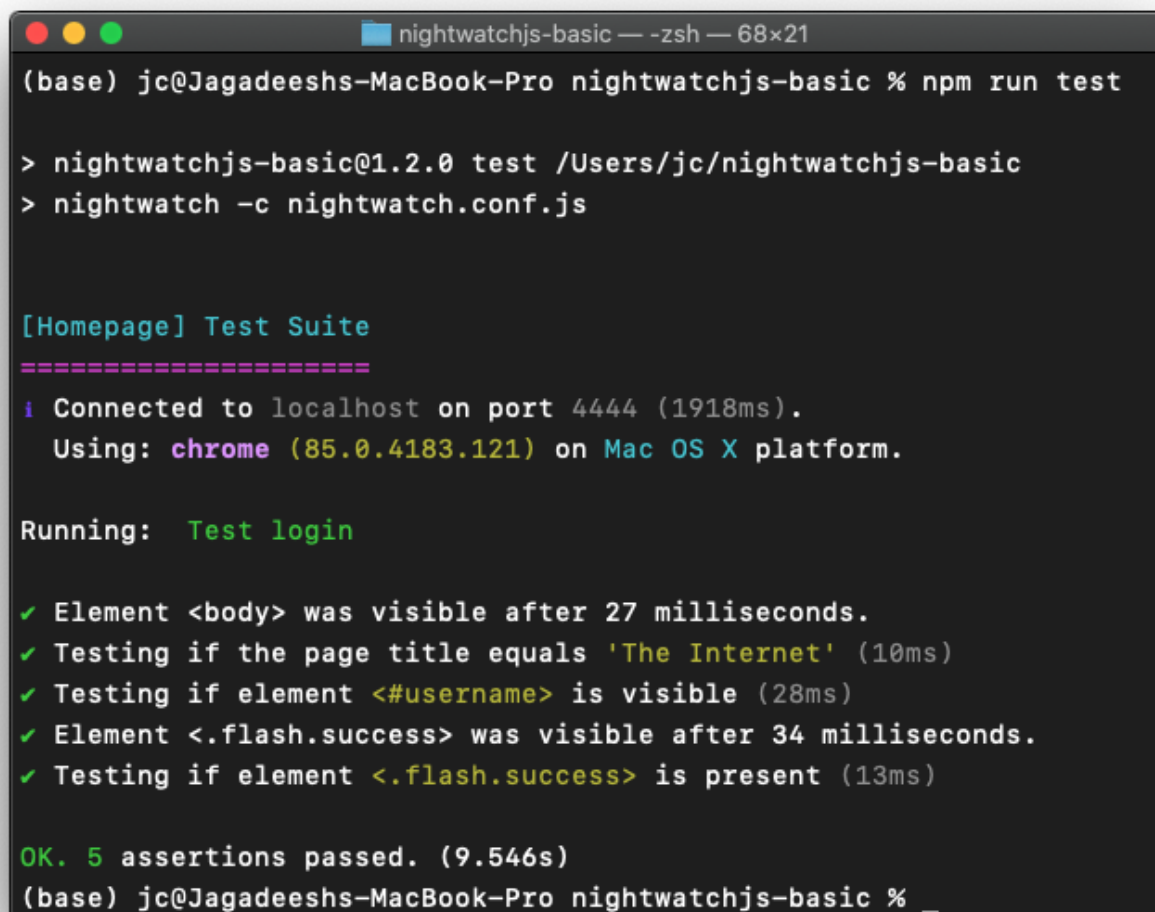
The screenshot shows a VS Code editor window with the title 'package.json — nightwatchjs-basic'. The editor has several tabs open: 'README.md', 'package.json', 'homepage.js', 'nightwatch.conf.js', and '.gitignore'. The 'package.json' tab is active, displaying the following JSON content:

```
{
  "name": "nightwatchjs-basic",
  "version": "1.1.0",
  "description": "helps to get started with nightwatchjs setup and test run on web browsers.",
  "main": "index.js",
  "scripts": {
    "test-e2e": "nightwatch -c nightwatch.conf.js"
  },
  "repository": {
    "type": "git",
    "url": "git+https://jagadeeshshetty@github.com/jagadeeshshetty/nightwatchjs-basic.git"
  },
  "keywords": [
    "nightwatchjs",
    "javascript",
    "selenium",
    "webdriver",
    "test",
    "automation",
    "chrome"
  ],
  "author": "JAGADEESH C",
  "license": "MIT",
  "bugs": {
    "url": "https://github.com/jagadeeshshetty/nightwatchjs-basic/issues"
  },
  "homepage": "https://github.com/jagadeeshshetty/nightwatchjs-basic#readme",
  "dependencies": {
    "nightwatch": "^1.1.11",
    "chromedriver": "^74.0.0"
  }
}
```

The status bar at the bottom indicates the current file is 'feature/driver-support*', there are 0 errors and 0 warnings, and the editor is in 'Minify' mode. It also shows 'Port : 5500', 'Ln 32, Col 2', 'Spaces: 2', 'UTF-8', 'LF', 'JSON', and a search icon.

Run

```
$ npm run test
```

A terminal window titled 'nightwatchjs-basic — zsh — 68x21' showing the execution of 'npm run test'. The output displays the NightwatchJS test suite for 'Homepage', indicating a successful connection to localhost on port 4444 using Chrome 85.0.4183.121 on a Mac OS X platform. The test 'Test login' passes all five assertions: element visibility, page title, username visibility, flash success visibility, and flash success presence. The final result is 'OK. 5 assertions passed. (9.546s)'.

```
(base) jc@Jagadeeshs-MacBook-Pro nightwatchjs-basic % npm run test

> nightwatchjs-basic@1.2.0 test /Users/jc/nightwatchjs-basic
> nightwatch -c nightwatch.conf.js

[Homepage] Test Suite
=====
i Connected to localhost on port 4444 (1918ms).
  Using: chrome (85.0.4183.121) on Mac OS X platform.

Running: Test login

✓ Element <body> was visible after 27 milliseconds.
✓ Testing if the page title equals 'The Internet' (10ms)
✓ Testing if element <#username> is visible (28ms)
✓ Element <.flash.success> was visible after 34 milliseconds.
✓ Testing if element <.flash.success> is present (13ms)

OK. 5 assertions passed. (9.546s)
(base) jc@Jagadeeshs-MacBook-Pro nightwatchjs-basic % _
```

Version changes

1.3.0

- Updated dependencies
 - Nightwatch **1.4.3**
 - Chromedriver **85.0.1**
- Updated test run command
- Updated readme with test run screenshot.

1.2.0

- Preserved with **1.2.0** tag.
- Nightwatch **1.1.11**, Chromedriver **74.0.0** version

1.1.0

- No need of individual driver download on mac and windows os. Removed explicit dependency on drivers. Now automatically download required drivers during **npm i** run.

1.0.0

- Basic project setup with Nightwatch framework and run.
- Depends on Selenium and Chrome web driver.

Reference

[Official Nightwatch](#)