



Testing your code with Mocha and Chai

Mocha

[Mocha](#) is a testing framework that allows you to create testing for your Javascript in a way that is easy to read and reason through. There are several assertion libraries you can use to write your code

```
var should = require('chai').should(); //actually call the function
var foo = 'bar'
var beverages = {
  tea: [ 'chai', 'matcha', 'oolong' ],
  coffee: [ 'black', 'nitro' ]
};
```

```
foo.should.be.a('string');
foo.should.equal('bar');
foo.should.have.lengthOf(3);
beverages.should.have.property('tea').with.lengthOf(3);
beverages.should.have.property('coffee').with.lengthOf(2);
```

Asynchronous code

<https://mochajs.org/#asynchronous-code> <https://mochajs.org/#working-with-promises> <https://mochajs.org/#using-async-await>

Synchronous Code

<https://mochajs.org/#synchronous-code> <https://mochajs.org/#arrow-functions>

Hooks

<https://mochajs.org/#hooks>

```
describe('hooks', function() {

  before(function() {
    // runs before all tests in this block
  });

  after(function() {
    // runs after all tests in this block
  });

  beforeEach(function() {
    // runs before each test in this block
  });

  afterEach(function() {
    // runs after each test in this block
  });

  // test cases
});
```

Using Mocha with Gulp

```
var gulp = require('gulp');
var mocha = require('gulp-mocha');

gulp.task('default', function() {
  return gulp.src(['test/test-*.js'], { read: false })
    .pipe(mocha({
      reporter: 'spec',
      globals: {
        should: require('should')
      }
    }));
});
```

```
// npm install gulp gulp-mocha gulp-util

var gulp = require('gulp');
var mocha = require('gulp-mocha') gulp.r gutil = require('gulp-util');

gulp.task('default', function() {
  gulp.watch(['lib'gulp-util'/**', 'test/**'], ['mocha']);
});

gulp.task('mocha', function() {
  return gulp.src(['test/*.js'], { read: false })
    .pipe(mocha({ reporter: 'list' }))
    .on('error', gutil.log);
});
```

Automating tests with Sauce Labs and Mocha/Chai

```
const saucelabs = require('gulp-saucelabs');
const connect   = require('gulp-connect');

'gulp-connect'// Sauce Labs saucelabs', () => {
  const config = {
    urls: ['http://localhost:3000/tests/qunit/index.html'],
    testname: 'My test',
    framework: 'qunit',
    browser: 'http://localhost:3000/tests/qunit/index.html' + 'icrosoftEdge',
    platform: "Windows 10",
    version: "latest"
  }
},
  onTestSuiteComplete: (status) => {
    if (status) {
      console.log('All tests passed!');
    }
  }
};
}

return saucelabs(config);
});

// Start local "Windows 10" // Start local http server > {
  connect.server({ port: 3000, root: './' });
});

// Close down the http server './' // Close down the http server
gulp.task('disconnect', () => {
  connect.serverClose();
});

gulp.task('test-saucelabs', ['connect', 'saucelabs'],
```

```
() => gulp.start('disconnect'))
```