JavaScript – Jest

Overview

Jest is a lightweight, quick, front-end JavaScript testing framework.

Install

Jest can be added via the yarn package manager:

yarn add --dev jest

Add Jest script to the package.json at base level:

{

"scripts": {

"test": "jest"

}

The package.json "jest" key is where the general Jest configuration will be placed.

Adding an Example Simple Test

Create a JavaScript module to be tested:

// sum.js

function sum(a, b) {

return a + b;

}

module.exports = sum;

Create a Jest test for the module:

// sum.test.js

const sum = require('./sum');

test('adds 1 + 2 to equal 3', () => {

expect(sum(1, 2)).toBe(3);

});

Run tests using yarn:

yarn test

Setup in Ruby on Rails

To setup in Ruby on Rails with webpack, the correct Jest configuration must be added. First create a new folder to contain the Jest test scripts in spec/javascript, for example:

// spec/javascript/sum.test.js

Then configure the Jest root to be the new specs folder:

"jest": {

"roots": [

"spec/javascript"

]

}

The rails application javascript files are typically placed in the webpack packs location: app/javascript/packs. Add this location to the Jest module lookups:

"moduleDirectories": [

"node\_modules",

"<rootDir>/app/javascript/packs"

]

Pack files should now be requirable by name, instead of relative path from test.js file.

Rails applications often use javascript files with .erb extensions to allow for the rails engine to add values prior to test, add the .erb extension to the allowed list of extensions:

"moduleFileExtensions": [

"js",

"js.erb"

],

### Add in erb loader to transform .erb files with ruby engine prior to test

To mock out any static assets with the module name mapper, add the following to the Jest configuration:

"moduleNameMapper": {

"\\.(jpg|jpeg|png|gif|eot|otf|webp|svg|ttf|woff|woff2|mp4|webm|wav|mp3|m4a|aac|oga)$": "<rootDir>/spec/javascript/\_\_mocks\_\_/fileMock.js",

"\\.(css|less)$": "<rootDir>/spec/javascript/\_\_mocks\_\_/styleMock.js"

}

Then add the relevant mocks to the spec/javascript/\_\_mocks\_\_/ directory:

// spec/javascript/\_\_mocks\_\_/fileMock.js

module.exports = 'test-file-stub'

// spec/javascript/\_\_mocks\_\_/styleMock.js

module.exports = {}