

Writing Tests



Tyler Maynard

AEM DEVELOPER

@TylersDesk www.tylermaynard.com

Overview



Understanding testing frameworks

Performing unit tests

Performing functional tests

Jenkins for continuous integration

Understanding Testing Frameworks

Testing Framework

A system with a set of rules for automation of software testing. This system makes use of function libraries, test data sources, object details, and various reusable modules.

The Mockito Framework



Features of Mockito

Mocks classes and interfaces

Stack traces are always clean

Flexible verification in order

Exact-number-of-times and at least-once verification

Flexible verification or stubbing

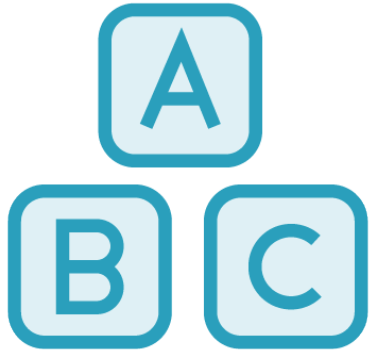
Custom argument matchers or existing hamcrest matchers

Performing Unit Tests

Unit Testing

The process where the application is divided into units, and each unit is individually tested for its successful operation.

Writing Sling Tests



JUnit tests

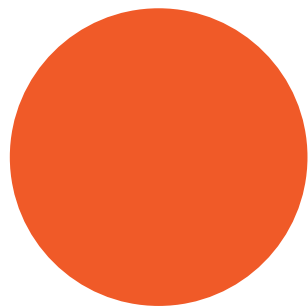


Scriptable tests



Integration tests

Performing Sling Scriptable Tests

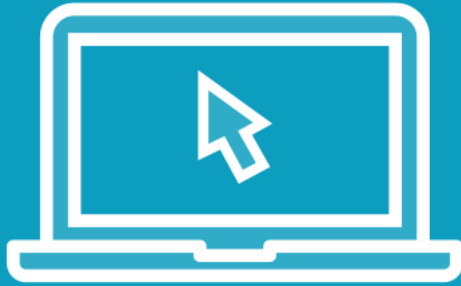


Node with the sling:Test



Scriptable test nodes

Demo



Create StockModelMockitoTest

Run test with IDE

Run all tests with Maven

Create Server-side Sling JUnit Test

Demo



Create StockModel server-side test

Build bundle and activate Integration Tests profile

Execute test through Maven

Execute test through AEM

Create Scriptable Server-side Tests

Demo



Create mixin-type sling:test node

Create a rendering script

Create the business logic

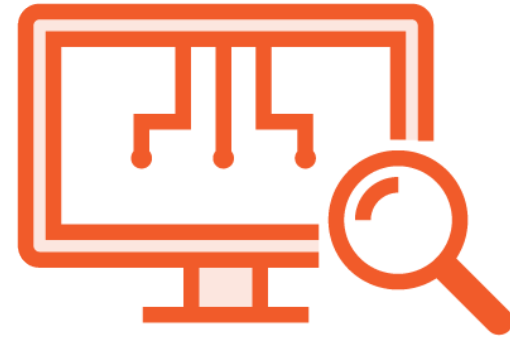
Test in browser

Performing Functional Tests

Functional Testing

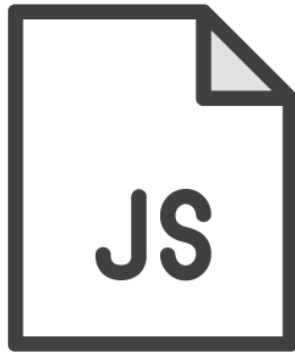


Front-end is tested



Test-Driven Development (TDD)

Hobbes Testing Framework



Javascript API for creating tests



Test panel in the touch-optimized UI

Demo



Create client library to hold tests

Run tests using the Hobbes console

Jenkins for Continuous Integration

Jenkins



Perform a
software build
with Apache
Maven



Run a shell
script



Archive the
build result



Start the
integration tests

AEM and Jenkins Workflow

Work on feature or bug fix

Test on local instance

Push the changes to the central repository

Build and deploy packages to AEM

Move feature to QA

Test changes on the Integration Server

Summary



Understanding testing frameworks

Performing unit tests

Performing functional tests

Jenkins for continuous integration