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Tania Gonzales

THE JAVASCRIPT TOOLKIT

ABOUT ME

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An attempt to organize the recent explosion of Javascript based technologies and frameworks into a coherent toolkit to be used by a web application developer.

What is the reason of the recent explosion of Javascript libraries and frameworks?

MANIFESTO FOR AGILE SOFTWARE DEVELOPMENT

Individuals and interactions over processes and tools

Working software over comprehensive documentation.

Customer collaboration over contract negotiation.

Responding to change over following a plan.

AGILE PURPOSE FOR DELIVERY

Deliver Fast

Deliver Often

Deliver Value

TECHNICAL SUPPORT FOR AGILE

Evolutionary Architecture

TDD

Continuous Integration

Lot's of Automatisation

Programming Languages

Continuous Delivery

Design Patterns

Evolutive Design

AGILE TOOLKIT

jUnit, TestNG, Cucumber

Jenkins, GO,

Snap, Bamboo

Design, Analysis,

Architecture Patterns

Gradle, Maven, Ant, Ivy

Java, Ruby, Scala,

Python, Clojure, Javascript

http://www.thoughtworks.com/radar

AND JAVASCRIPT?

Node.js® is a platform built on **Chrome's JavaScript runtime** for easily building fast, scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Current Version: v0.12.0

The great enabler...

TOOLKIT CATEGORIES

Infrastructure

Application & Product

Development

Testing

Utilities & Support

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INFRASTRUCTURE

Your toolbox for fast and easy development.

SCAFFOLD

Several tools, several ways, several practices. Need to organize and give some good foundation - best practices, good design.

YEOMAN

HTML5 BOILERPLATE

Seed Projects

Bootstraps

AUTOMATION

Lot's of tasks to execute: compile, test, assembly, minify and deliver your code.

AUTOMATION UTILITIES

While running your automated task you probably want some tools to help you go even further.

UglifyJS 2

JSHint

JSLint
The JavaScript Code Quality Tool

minify tools

concat tools

watch

DEPENDENCY MANAGEMENT

Applications are getting complex, they rely on several other libraries and frameworks.

bower.js
FRONT-END PACKAGE MANAGEMENT

npm

Component/S

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APPLICATION &
PRODUCT

Application are getting complex, need for frameworks that support app development.

APPLICATION FRAMEWORKS

Main javascript frameworks to build

user interfaces.

APPLICATION UTILITIES

Libraries that will help when building the application.

director

flatiron
FOR NODE.JS

Crossroads.js

JavaScript Routes System

page js

DYNAMIC LOADING

Big projects are split among several pieces of javascript for the sake of the modularization. No all of them should be loaded at the same time.

github.com/cujojs/curl

github.com/amdjs

github.com/caolan/async

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DEVELOPMENT

OTHER LANGUAGES

Have a syntactic sugar element, or even completely different syntax (that in the end turns into javascript to run in the browser).

CoffeeScript

TypeScript

github.com/clojure/clojurescript

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TESTING

Testing is all around. Need to test in different browsers, need to write the tests, need to run the tests, need to report the results.
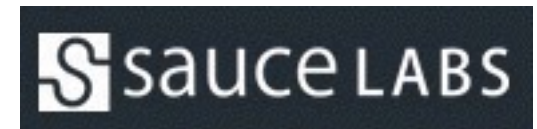
FRAMEWORKS

Tools to allow you write your tests.

Jasmine

mocha — simple, flexible, fun

QUnit — js unit testing

TEST RUNNERS

How de we run our tests?

KARMA

sauce LABS

END TO END

Test the whole flow of your application.

Protractor — end to end testing for AngularJS

Nightwatch.js

Casper.js

TEST SUPPORT

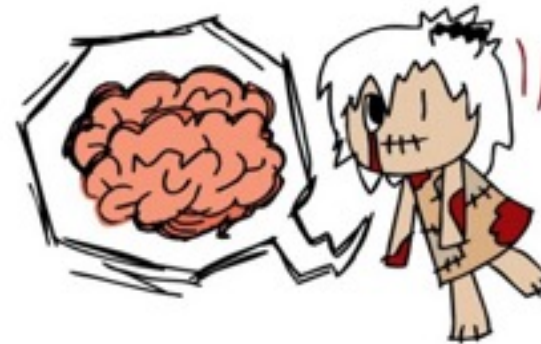*Support libraries for writing and running tests.*

PhantomJS — Headless webkit with javascript API

Chai Assertion Library

Zombie.js

Insanely fast, full-stack, headless browser testing

Sinon.JS

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UTILITIES &
SUPPORT

The support you need while writing Javascript

DOM UTILITIES

DOM selection and manipulation, some auxiliary functions, need for utilities that make work simple.

LANGUAGES UTILITIES

Clean utilities, functional programming style, reactive programming features, helpers and utilities.

UNDERSCORE.JS

Promises

by Forbes Lindesay

fn.js

Moment.js

A lightweight javascript date library for parsing, manipulating, and formatting dates.

github.com/kriskowal/q

CI

Continuos integration, continuous delivery, continuous deployment.

WRAP UP

Different needs/tools and their relation

Agile demands for you as a developer

Keep your mind open

THANK YOU

For questions or suggestions:

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