

# JavaScript Powered Web Apps

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*Duration: 5 Day(s)*

## Course Overview

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JavaScript Powered Web Apps is a three day course for the web site admin/developer who wants to understand what all the talk is about node.js or Google's Angular. The most popular cutting edge components and web frameworks are discussed. Students will program with focused exercises to learn node.js, AngularJS, Express, and many web components including the use of MongoDB, Mustache, Zurb's Foundation, Knockout, PhantomJS, and more.

Review this course online at <https://www.alta3.com/courses/WD-520>

## Objectives

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- Understand the fundamentals of JavaScript development environments.
- Build and manage web servers using JavaScript.
- Architect and implement client-driven, one-page web applications.
- Leverage popular frameworks and libraries for dynamic web app development.

## Who Should Attend

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- Web developers
- Site administrators
- JavaScript programmers
- Technical leads

## Prerequisites

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- HTML, CSS, or programming experience in any language
- JavaScript or jQuery experience

## Course Outline

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### Web architecture

1. Architecture
2. Component terms
3. Client operations – web
4. Web server types
5. Server operations - web
6. Web 1.0
7. Web 1+ – static page generators
8. Web 1+ – CSS generators
9. Web 1+ – JavaScript generators
10. Web 2.0 – dynamic web sites
11. Web 3 – apps

## **Node.js**

- 12. History
- 13. Case studies – PayPal
- 14. Case studies – misc.
- 15. What can you do?
- 16. Why should you use it?
- 17. Architecture with Node.js
- 18. Execution model
- 19. Command line vs. shell
- 20. Core modules
- 21. File Modules
- 22. Text server
- 23. Serving static files
- 24. Processing POST data
- 25. An HTTP client
- 26. Node - utilities

## **Client/Server**

- 27. Requests
- 28. Requests - search interest
- 29. Requests - current usage
- 30. Requests – proxies
- 31. Requests – nginx
- 32. Messaging
- 33. Sockets
- 34. Middleware – Connect
- 35. Compression
- 36. Misc. libraries

## **Controller**

- 37. Business logic
- 38. Data binding
- 39. Data binding - Knockout
- 40. Security
- 41. Security – Passport
- 42. Security – resources
- 43. Routing
- 44. HTTP requests
- 45. Services
- 46. Services – LoopBack
- 47. Services – Restify

- 48. Services – SOA
- 49. Services – Synth
- 50. Services - .NET

## **Model**

- 51. Structure
- 52. Structure - In memory
- 53. Structure – file based
- 54. Structure – CSV file
- 55. Databases
- 56. Database rankings
- 57. Databases - NoSQL comparisons
- 58. Databases – MySQL, MariaDB
- 59. Databases - MongoDB
- 60. Databases - Redis
- 61. Databases - Couchbase
- 62. Databases - Neo4J
- 63. Databases - data drivers
- 64. Databases – Breeze
- 65. Databases - misc
- 66. Validation
- 67. Migration

## **Frameworks**

- 68. Requirements?
- 69. Frameworks – About
- 70. Style - Static site generator
- 71. Style - Single-page app
- 72. Style - Isomorphic apps
- 73. Server – Express
- 74. Server – Connect + Express lifecycle
- 75. Server – Connect + Express
- 76. Server - misc
- 77. Framework – Meteor
- 78. Style - MV\*
- 79. Backbone
- 80. Ember.js
- 81. Style - MV\* Express like
- 82. hapi
- 83. Flatiron
- 84. Total.js (Partial.js)
- 85. Koa
- 86. Style - MV\* Rails - like

- 87. Style - MV\* other
- 88. Famo.us
- 89. Style - full-stack
- 90. Facebook Flux & React
- 91. Resources
- 92. Framework - MEAN stack
- 93. Framework - Google Angular

## **View**

- 94. Internationalization
- 95. DOM manipulation
- 96. Boilerplates
- 97. Boilerplates - Twitter Bootstrap
- 98. Boilerplates - Zurb Foundation
- 99. Templating
- 100. Templating – Jade
- 101. Templating - Mustache family
- 102. Templating – misc
- 103. Templating - Web Components
- 104. Templating - Google Polymer

## **Development**

- 105. Debugging – logging
- 106. Debugging – logging, Bunyan
- 107. Testing
- 108. Testing - Jasmine
- 109. Testing – PhantomJS
- 110. Testing – PhantomJS + Nightmare
- 111. Testing - misc
- 112. Patterns
- 113. Patterns - Mobile
- 114. Misc

## **Resources**

- 115. Books
- 116. Media
- 117. Services
- 118. Conferences