

# Angular and Node JS Syllabus

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| <b>Session 1: Introduction to HTML</b>                 |   |
| ✓ HTML Basics, Elements, Attributes, Styles            | ✓ Forms, Form Elements, Input Element Types       |
| ✓ Input Attributes, File Paths, Script tag             | ✓ HTML & XHTML                                    |
| <b>Session 2: Introduction to CSS</b>                  |   |
| ✓ CSS Introduction, Syntax, Selectors, Styling         | ✓ CSS Tables, CSS Box Models                      |
| ✓ Pseudo class, Pseudo Elements                        | ✓ CSS Opacity, CSS Navigation Bar, Dropdowns      |
| <b>Session 3: Introduction to JavaScript</b>           |   |
| ✓ JavaScript Statements, Keywords, Functions           | ✓ JavaScript Programs, Operators, Functions       |
| ✓ Function Parameters, Function Return Types           | ✓ Data Types, Primitive Types                     |
| <b>Session 4: Working with Objects</b>                 |   |
| ✓ Object Oriented Programming, Object Creation         | ✓ Adding Properties of Objects                    |
| ✓ Adding Methods of Objects                            | ✓ JavaScript Conditional Statements               |
| ✓ JavaScript Loops & Iteration                         | ✓ Enumerating Properties, Callbacks, JSON         |
| <b>Session 5: Angular JS Basics</b>                    |   |
| ✓ What is AngularJS?, Why AngularJS?                   | ✓ Features of Angular JS, Model-View-Controller   |
| ✓ Why MVC matters, MVC-The Angular JS way              | ✓ My First Angular JS app                         |
| <b>Session 6: Angular Expressions</b>                  |   |
| ✓ All about Angular Expressions                        | ✓ How to use expressions, Angular vs JavaScript   |
| <b>Session 7: Filters</b>                              |   |
| ✓ Built-In Filters, Using Angular JS Filters           | ✓ Creating Custom Filters                         |
| <b>Session 8: Directives</b>                           |   |
| ✓ Introduction to Directives, Directive Lifecycle      | ✓ Using Angular JS built-in directives            |
| ✓ Binding controls to data, Matching directives        | ✓ Creating a custom directive                     |
| <b>Session 9: Controllers</b>                          |   |
| ✓ Role of a Controller, Controllers & Modules          | ✓ Attaching Properties and functions to scope     |
| ✓ Nested Controllers, Using Filters in Controllers     | ✓ Controllers in External Files                   |
| <b>Session 10: Angular JS Modules</b>                  |   |
| ✓ Introduction to Angular JS Modules                   | ✓ Bootstrapping Angular JS                        |
| <b>Session 11: Angular JS Forms</b>                    |   |
| ✓ Working with Angular Forms, Model Binding            | ✓ Form Controller, Validating Angular Forms       |
| ✓ Forms Events, Updating Models with a Twist           | ✓ \$error object                                  |
| <b>Session 12: Scope</b>                               |   |
| ✓ What is scope, Scope Lifecycle                       | ✓ Two-way data binding, Scope Inheritance         |
| ✓ Scope Inheritance, Scope & Controllers               | ✓ Scope & Directives, \$apply and \$watch         |
| ✓ Rootscope, Scope Broadcasting                        | ✓ Scope Events                                    |
| <b>Session 13: Dependency Injection &amp; Services</b> |   |
| ✓ What is Dependency Injection                         | ✓ Using Dependency Injection, What are services   |
| ✓ Creating Services, Factory, Service & Provider       | ✓ Using Angular JS built in services              |
| <b>Session 14: Single Page Application (SPA)</b>       |   |
| ✓ What is SPA, Pros and Cons of SPA                    | ✓ Installing the ngRoute module, Configure routes |
| ✓ Passing Parameters, Changing location                | ✓ Resolving promises, Creating a Single Page Apps |
| <b>Session 15: Angular JS Animation</b>                |   |
| ✓ ngAnimate Module, CSS Transforms                     | ✓ CSS Transitions, Applying Animations            |
| <b>Session 16: Introduction to Node JS</b>             |   |
| ✓ Introduction to Node JS                              | ✓ What is Node JS, Node.js Process Model          |
| ✓ Advantages of Node JS                                | ✓ Traditional Web Server Model                    |
| <b>Session 17: Setup Development Environment</b>       |   |
| ✓ Install Node.js on Windows                           | ✓ Working in REPL, Node JS Console                |

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| <b>Session 18: Node JS Modules</b>               |                                     |
| ✓ Functions, Buffer, Module                      | ✓ Core Modules, Local Modules       |
| ✓ Modules Types                                  | ✓ Modules Exports                   |
| <b>Session 19: Node Package Manager</b>          |                                     |
| ✓ What is NPM, Installing Packages Locally       | ✓ Adding dependency in package json |
| ✓ Installing package globally                    | ✓ Updating packages                 |
| <b>Session 20: Creating Web Server</b>           |                                     |
| ✓ Creating Web Server                            | ✓ Handling http requests            |
| ✓ Sending Requests                               |                                     |
| <b>Session 21: File System</b>                   |                                     |
| ✓ Fs.readFile, Writing a File                    | ✓ Writing a file asynchronously     |
| ✓ Opening a file, Deleting a file                | ✓ Other IO Operations               |
| <b>Session 22: Debugging Node JS Application</b> |                                     |
| ✓ Core Node JS Debugger                          |                                     |
| <b>Session 23: Events</b>                        |                                     |
| ✓ Event Emitter class                            | ✓ Returning event emitter           |
| ✓ Inheriting Events                              |                                     |
| <b>Session 24: Express JS</b>                    |                                     |
| ✓ Configuring Routes                             | ✓ Working with Express              |
| <b>Session 25: Serving Static Resources</b>      |                                     |
| ✓ Serving Static Files                           | ✓ Working with Middle Ware          |
| <b>Session 26: Database Connectivity</b>         |                                     |
| ✓ Connecting String, Configuring                 | ✓ Working with Select Command       |
| ✓ Updating Records                               | ✓ Deleting Records                  |
| <b>Session 27: Project Development</b>           |                                     |
| ✓ Project Development using Node JS              |                                     |