

## Day - 1

- **Introduction - JavaScript**

- Why Study JavaScript
- Application and Feature of JavaScript
- JavaScript Code Editor with Example
- JavaScript Output
- JavaScript Placement

- **JavaScript Variable**

- Variable Declaration Syntax
- Expression, Keyword, Identifier
- Operator: Arithmetic, Assignment, String, Comparison, Logical, Type, Bitwise
- Ternary Operator.
- Data Type: String, Number, Boolean, Array, Typeof

- **Decision Control and Loop Structure**

- Condition Statement
- Switch Statement
- Loop Structure: While, do-while, For.
- Control Flow: Break, Continue, goto Statement

- **Function**

- Function Definition, Prototype and Types.
- Anonymous and Callback Function
- Call by Value and Call by Reference
- Apply and Bind Method ()
- Function Scope: local and global
- Recursive Function

- **Array and String**

- Creating and Accessing Array Elements
- Array Type: Single, Associative, Multidimensional.
- Array Method For Sorting and Reversing:
- concat(), filter(), foreach(), reverse(), join(), splice(), sort(), toString().
- String Properties and Method

- **JavaScript Object and Class**

- Object Properties and Method
- Accessing and Displaying the Object
- Primitive and Reference Type and Primitive Wrapper Type
- Class, Constructor and new Operator
- Inheritance
- Getter and Setter Method
- Static Class

- **Modules**

- Overview
- Identifying a Module
- Creating an Internal Module
- Internal Module Accessibility and IIFE
- Named Modules
- Extending Modules and Importing Shortcuts
- Organizing Internal Modules
- Separating Internal Modules
- External Modules and Dependency Resolution
- Module Dependencies
- Importing External Modules Using AMD
- Importing 3rd Party Libraries Using AMD
- Modules Recap

- **Java Script Regular Expression**

- Object Properties and Method
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- Static Class

- **Java Script Error**

- Handling Error Using Try and Catch Statement
- Error Object Properties and Error Name value.
- Regular Expression and Pattern.

- **JS Dom Method and Element**

- Dom Structure.
- Dom method and properties with Programming Interface
- Finding Html Element By: id, tag name, classname, css selector, object collection.
- Changing Html Content, value of attribute and Style

- **Java Script DOM Event and Event Listener**

- Event Type: Keyboard, Form, Document, Click Event
- AddEventListener Method and RemoveEventListener
- Adding Single and Many Event handler to element and window object

- **Java Script DOM Nodes and Navigation**

- Retrieving Node Element Using Node Properties
- Node Value and Type Properties
- Creating, Removing, Replacing HTML Node Element: append,remove and replace method

- **Java Script DOM Collection and Node List**

- HTML Collection Object and Length
- HTML NodeList Object
- Difference between an HTMLCollection and a Node List

- **Web Api Introduction and Web History API**

- What is Web API
- Browser API and Third-Party API
- History Object and Properties: back,forward and go method();

- **Web Storage API**

- Web Storage Concept and Usage
- Local Storage Object: (i) How to saving data to Local Storage, (ii) How to reading and removing data from local Storage
- Session Storage Object: (i) How to saving data to Session Storage, (ii) How to reading and removing data from Session Storage
- Storage Object Properties and Method

- **Web Fetch API**

- Sending a Request: uploading single and Multiple File
- Reading Response
- Handling Status Code of Response
- Java script Fetch API Example

- **Geolocation Web API**

- Concept and Usage
- Interfaces
- Geolocation Object Properties and Method

- **Introduction - AngularJS**

- Course Introduction
- Angular Architecture
- Demo: Hello World in Angular
- The Angular Event Reg Application
- Angular Version
- Tools Used
- Summary

- **Angular Controllers & Markup**

- Introduction
- Demo: Creating the Node Server
- Demo: Creating the ASP.NET Server
- Angular Controllers & Scope
- Demo: Controllers
- Demo Handling Events
- Built-in Directives
- Event Directives
- Other Directives - Part 1
- Other Directives - Part 2
- IE Restrictions with Angular
- Expressions
- Filters
- Built-in Filters
- Writing Custom Filters
- Two Way Binding
- Demo: Two Way Binding
- Validation

- **Creating and Using Angular Services**

- Introduction to Angular Services
- Creating Your First Custom Service
- Another Custom Service Example
- Introduction to Built-In Angular Services
- Using Angular's \$http Service
- Updating a Node Server for JSON Requests
- Updating an IIS Server for JSON Requests
- Using \$http Promises
- Using Angular's \$resource Service
- Saving Data with \$resource
- Using Angular's \$anchorScroll Service
- Using Angular's \$cacheFactory Service
- Using Angular's \$compile Service
- Using Angular's \$parse Service
- Using Angular's \$locale Service
- Using Angular's \$timeout Service
- Using Angular's \$exceptionHandler Service
- Using Angular's \$filter Service
- Using Angular's \$cookieStore Service
- Overview of Less Common Angular Services

- **Angular Routing**

- Introduction to Angular Routing
- Websites of Yore
- Single Page Applications
- Adding Your First Angular Route
- More Routing and Browser History
- Creating a Default Route
- Accessing Parameters from the Route
- Using Angular's \$route Service
- Enabling HTML5 Routing
- Template and Resolve Properties
- Using Angular's \$location Service

- **Testing Angular**

- Introduction
- Installing Karma
- Karma with Webstorm
- Testing Controllers in Angular
- Testing Controllers in Angular Part 2
- Testing Services in Angular
- Testing Services with Dependencies
- Testing AJAX Services in Angular
- Testing AJAX Services in Angular Part 2
- Testing Filters in Angular
- Testing Directives - Overview
- Setting up Karma for testing Directives
- Testing Directives in Angular
- End to End testing - Overview
- Setting up Protractor
- Setting up Protractor with Webstorm
- Angular End to End testing - Part 1
- Angular End to End testing - Part 2
- Summary

- **Creating Custom Angular Directives**

- Introduction to Angular Directives
- Creating Your First Angular Directive
- Domain-Specific Language via Custom Elements
- Isolating Directive Scope
- Exploring Isolate Scope Bindings
- Handling Events with Directives
- Observing and Responding to Changes
- Using Controllers within Directives
- Sharing Directive Controllers via Require
- Directive Priority and using Terminal
- Using Require with Nested Directives
- Understanding Transclusion
- Using Compile to Transform the DOM
- Making jQuery More Explicit with Directives
- Summary