

# Customize MEAN Stack Training: Duration 3 Days

## Day 1:

### Typescript

- Overview about Typescript
- ES5 and ES6
- Why Typescript

### Angular

#### 1. Getting Started with Angular

- What is Angular?
- Architecture of Angular Apps
- Your First Angular App

#### 2. Introduction to Components

- Introduction to Components Property Binding
- What Is a Component
- Creating the Component Class
- Defining the Metadata with a Decorator
- Importing What We Need
- Demo - Creating the App Component
- Bootstrapping Our App Component

#### 3. Templates, Interpolation, and Directives

- Introduction to Templates, Interpolation, and Directives
- Building a Template
- Building the Component
- Using a Component as a Directive
- Binding with Interpolation
- Adding Logic with Directives – ngIf
- Adding Logic with Directives – ngFor

#### 4. Data Binding & Pipes

- Introduction to Data Binding & Pipes
- Property Binding
- Handling Events with Event Binding
- Handling Input with Two-way Binding
- Transforming Data with Pipes
- Pure and Impure Pipes

#### 5. More on Components

- Introduction to More on Components
- Defining Interfaces
- Encapsulating Component Styles
- Using Lifecycle Hooks
- Building Custom Pipes
- Relative Paths with Module Id

## **6. Building Nested Components**

- Introduction to Building Nested Components
- Building a Nested Component
- Using a Nested Component
- Passing Data to a Nested Component Using @Input
- Passing Data from a Component Using @Output

## Day 2:

### 7. Forms

- How to work with Forms

### 8. Services and Dependency Injection

- Introduction to Services and Dependency Injection
- How Does It Work
- Building a Service
- Registering the Service
- Injecting the Service

### 9. Retrieving Data Using HTTP

- Introduction to Retrieving Data Using HTTP
- Observables and Reactive Extensions
- Sending an HTTP Request
- Exception Handling
- Subscribing to an Observable

### 10. Navigation and Routing Basics

- Introduction to Navigation and Routing Basics
- How Routing Works
- Configuring Routes
- Tying Routes to Actions
- Placing the Views
- Create Single Page Application(SPA)

## NodeJS:

### 1) Introduction

- Overview of NodeJS
- Installing NodeJS on windows

### 2) Exploring language additions to the V8 JavaScript engine

- Role of Node Package Manager (NPM)
- Global vs. Local NPM installation

### 3) Understanding NodeJS

- Understanding require() and modules
- Understanding callback execution in the event loop
- Creating a project
- The package.json configuration file

### 4) HTTP and File System

- The HTTP protocol
- Building an HTTP server
- Rendering a response
- Synchronous vs. asynchronous I/O
- Path and directory operations
- `__dirname` and `__filename`
- Asynchronous file reads and writes
- Watch Update

#### **5) Buffers, Streams, and Events**

- Using buffers for binary data
- Flowing vs. non-flowing streams
- Streaming I/O from files and other sources
- Processing streams asynchronously
- Configuring event handlers

## Day 3

### 6) Using Express Framework

- What is Express.js?
- Installing Express.js
- Building a Hello Express application

### 7) Working with Models, Views, and Routes

- Creating routes
- Creating view with ejs & jade engine
- Using templates
- Adding partials
- Using locals and conditional templates
- Modularizing our routes
- Working with Data

### 8) Database

- RDBMS databases and NoSQL databases
- Connecting to RDBMS and NoSQL databases

### 9) Working with MongoDB

- Setting Up MongoDB
- Installing MongoDB
- Using Mongo DB in Node.js
- Structuring Your Data for MongoDB
- Understanding the Basic Operations

### 10) Working with RESTful web services

- Getting Data
- Posting Data
- Updating Data

### 11) Angular With Node

- How to integrate Angular App with Node