



FULL STACK DEVELOPMENT

FULL Stack Developer Training is a 360° training program offered by GRRAS, comprehensive and designed to train participants in creating enterprise-style applications with server-side code using Node.js, Express framework, front-end coding using Angular, React JS and databases with Mongo DB.

This training program has become one of the most popular and in-demand because of all the benefits it offers with a combination of technologies. Web developers who want to take their careers to a new level can do so with FULL Stack (MEAN) Developer Training (Master Program).

After completion of the training, participants will become experts in front-end and back-end JavaScript technologies of the popular **Mongo DB, Express, Angular, React and Node**. This training program is designed to give participants a thorough understanding of FULL Stack technologies, Mongo DB, Express, Angular JS, React JS and NodeJS, and more.

Course Content:-

1. HTML
2. CSS
3. Java Script Basic
4. JQuery
5. Bootstrap
6. Java Script Advance
7. Typescript
8. Mongo DB
9. Angular/ React JS
10. Node/ NodeJS
11. AWS Cloud Integration

1. HTML 5.1(Hypertext Mark-up Language)

- Introduction of tags
- Empty and Container Tags
- Htmlelements



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- Html attributes
- Html tables
- Html Lists
- Html div with CSS float
- Html forms
- Html other important tags

2. CSS 4.0 (Cascading Stylesheet) with Bootstrap

- Introduction of CSS
- Inline CSS
- Internal CSS
- External CSS
- Box model and Margin, Padding
- Float property
- Positioning in CSS

3. Bootstrap Framework

- Introduction of Bootstrap
- Bootstrap carousel
- BS Grid Basic
- BS Typography
- BS Tables
- BS Images
- BS Jumbotron
- BS Wells
- BS Alerts BS Buttons
- BS Button Groups
- BS Glyphicons
- BS Badges/Labels
- BS Progress Bars
- BS Pagination
- BS Pager
- BS List Groups
- BS Panels
- BS Dropdowns
- BS Collapse
- BS Tabs/Pills
- BS Navbar
- BS Forms
- BS Inputs
- BS Carousel
- BS Modal



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- BS Tooltip
- BS Popover
- BS Affix
- BS Filters

4. JavaScript Basic

- JS Introduction
- JS Variables
- JS Operators
- JS Arithmetic
- JS Assignment
- JS Data Types
- JS Functions
- JS Objects
- JS Events
- JS Strings
- JS Numbers
- JS Arrays
- JS Dates
- JS Date Formats
- JS Math
- JS Random
- JS Booleans
- JS Control statements
- JS Type Conversion
- JS Bitwise
- JS RegExp
- JS Errors
- JS Scope
- JS Strict Mode
- JS this Keyword
- JS Let
- JS Const
- JS Debugging
- JS JSON

5. JQuery

- JQuery Usage
- Downloading jQuery
- JQuery: Operational Overview
- Basic Selectors
- Multiple Selector

- Selecting by Order
- Attributes vs. Properties
- CSS Box Model Properties
- Element Content
- Manipulating Children
- Effects (Basic Animation)
- Hierarchical Selectors (Combinators)
- Attribute Selectors
- Basic vs. Child Filters
- Filtering Methods
- Traversing Methods
- Selecting From Forms
- Selecting Parent and Children
- Automatic DOM Traversal
- Manipulating DOM Elements
- Getting and Setting Attribute Values
- RemovingAttributes
- The jQuery Function
- The jQuery Object
- Some jQuery “Static” Methods
- Utility Methods
- Binding Multiple Events to Same Handler
- Multiple Events to Different Handlers
- Event Targets
- Triggering Events
- Live Events
- Changing HTML Content
- Changing Text Content
- Managing Elements
- Introduction to Animations
- JSONParsers
- Sending Data JSON vsXML
- JQuery AJAX Utility Methods
- JQuery and JSON
- JQuery and Other Data Types
- Serialization
- Deferred Objects

6. JavaScript Advance

- Variable Hoisting
- Ways of Function Definition
- Ways of function calling

- Context binding
- JS Clousers
- JS Objects
- JS Constructor
- JS prototypal inheritance
- JS CallBacks
- JS CallBack Hell
- JS Promise intro
- JS Promise as a solution for CallBack Hell
- Observable
- Obervableimplimentation with RxJs
- Async / Await in JS
- JS global object
- understanding 'this'

7. TypeScript and Object-oriented Programming Fundamentals

- Introduction
- What isTypeScript
- Your First TypeScript Program
- Declaring Variables
- Types
- Type Assertions
- Arrow Functions
- Interfaces
- Classes
- Objects
- Constructors
- Access Modifiers
- Access Modifiers in Constructor Parameters
- Properties
- Modules
- Exercise

8. Angular JS

- Introduction
- What is Angular
- Architecture of Angular Apps
- Setting Up the Development Environment
- Your First Angular App
- Structure of Angular Projects
- What is Webpack
- Angular Version History (AngularJS and Angular)



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- Building Blocks of Angular Apps
- Creating Components
- Creating Components Using Angular CLI
- Templates
- Directives
- Services
- Dependency Injection
- Generating Services Using Angular CLI

9. Displaying Data and Handling Events

- Introduction
- Property and Attribute Binding
- Adding Bootstrap
- Class Binding
- Style Binding
- Event Binding
- Template Variables
- Two-way Binding
- Pipes

10. Directives

- Introduction
- ngIf
- ngSwitchCase
- ngFor
- ngClass
- ngStyle

11. Template-driven Forms

- Introduction
- Building a Basic Bootstrap Form
- Types of Forms
- ngModel
- Adding Validation
- Specific ValidationErrors
- Styling Invalid Input Fields
- Cleaner Templates
- ngForm
- ngModelGroup
- Control Classes and Directives
- Disabling the Submit Button
- Working with Form fields



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12. Reactive Forms

- Introduction
- Building a Bootstrap Form
- Creating Controls Programmatically
- Adding Validation
- Specific Validation Errors
- Implementing Custom Validation
- Validating Upon Submitting the Form
- Nested FormGroups
- FormBuilder

13. Consuming HTTP Services

- Introduction
- JSONPlaceholder
- Getting Data
- Creating Data
- Updating Data
- Deleting Data
- OnInit Interface
- Separation of Concerns
- Extracting a Service
- Handling Errors
- Extracting a Reusable Data Service
- The Map Operator
- Observables vs Promises

14. Routing and Navigation

- Introduction
- Routing in a Nutshell
- Configuring Routes
- RouterOutlet
- RouterLink
- RouterLinkActive
- Accessing Route Parameters
- Programmatic Navigation
- Routes with Multiple Parameters
- QueryParameters
- The SwitchMap Operator

15. Authentication and Authorization

- Introduction



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- Application Overview
- Architecture
- Difference Authentication and Authorization
- Implementing the Login
- Implementing the Logout
- Showing - Hiding Elements Based on the User's Role
- Getting the Current User
- Redirecting the Users after Logging In
- Protecting Routes Based on the User's Role
- Accessing Protected API Resources

16. Deployment

- Introduction
- Preparing for Deployment
- JIT vs AOT Compilation
- Angular Compiler in Action
- Building Applications with Angular CLI
- Environments
- Linting
- Deploying to production

17. Getting started with Node Welcome

- What is Node
- Node Architecture
- How Node Works
- Installing Node
- Your First Node Program

18. Node Module System

- Introduction
- Global Object
- Modules
- Creating a Module
- Loading a Module
- Path Module
- OS Module
- File System Module
- Events Module
- Event Arguments
- Extending EventEmitter
- HTTP Module

19. Node Package Manager (NPM)

- Introduction
- Package.json
- Installing a Node Package
- Using a Package
- Package Dependencies
- Installing a Specific Version of a Package
- Updating Local Packages
- DevDependencies
- Uninstalling a Package
- Working with Global Package

20. Building RESTful API's Using Express

- Introduction
- RESTful Services
- Introducing Express
- Building Your First Web Server
- Nodemon
- Environment Variables
- Route Parameters
- Handling HTTP GET Requests
- Handling HTTP POST Requests
- Calling Endpoints Using Postman
- Input Validation
- Handling HTTP PUT Requests
- Handling HTTP Delete Requests
- Project- Build the Genres API
- Building RESTful APIs with Express Recap

21. CRUD Operations Using MongoDB

- Introducing MongoDB
- Installing MongoDB on Windows
- Connecting to MongoDB
- Schemas
- Models
- Saving a Document
- Querying Documents
- Comparison Query Operators
- Logical Query Operators
- Regular Expressions
- Counting
- Updating a Document

- RemovingDocuments

22. Mongo - Data Validation

- Validation
- Built-in Validators
- Custom Validators
- Async Validators
- Validation Errors
- SchemaType Options

23. Mongoose- Modeling Relationships between Connected Data

- Modelling Relationships
- Referencing Documents
- Population
- Embedding Documents
- Using an Array of Sub-documents
- Transactions
- ObjectID
- Validating ObjectIDs
- A Better Implementation

24. Authentication and Authorization

- Introduction
- Creating the User Model
- Registering Users
- Hashing Passwords
- Authenticating Users
- Testing the Authentication
- JSON Web Tokens
- Generating Authentication Tokens
- Storing Secrets in Environment
- Variables Setting ResponseHeaders
- Getting the Current User
- Logging out Users
- Role-based Authorization
- Testing the Authorization
- Authentication and AuthorizationRecap

25. Handling and Logging Errors

- Introduction
- Handling Rejected Promises
- Express Error Middleware

- Try Catch Blocks
- Express Async Errors
- Logging Errors
- Logging to MongoDB
- Uncaught Exceptions
- Unhandled Promise Rejections

26. Deployment

- Introduction
- Heroku intro
- Account creation on Heroku
- Preparing the App for Production
- Adding the Code to a Git Repository
- Deploying to Server
- Testing the app

27. Node-JS

a) Advance Java Script

- Variable Hoisting
- Ways of Function Definition
- Ways of function calling
- Context binding
- JS Clousers
- JS Objects
- JS Constructor
- JS prototypal inheritance
- JS Callbacks
- JS Callback Hell
- JS Promise intro
- JS Promise as a solution for Callback Hell
- Observable
- Obervableimplimentation with RxJS
- Async / Await in JS
- JS global object
- understanding 'this'

b) Foundation

- The Node.js framework
- Installing Node.js
- Using Node.js to execute scripts

c) Node Projects

- The Node Package Manager
- Creating a project
- The package.json configuration file
- Global vs. local package installation

d) HTTP

e) File System

f) Synchronous vs. asynchronous I/O

g) Path and directory operations

- __dirname and __filename
- Asynchronous file reads and writes
- Buffers, Streams, and Events

h) Configuring event handlers

i) Express

j) The model-view-controller pattern

k) Defining routes

l) Configuring Express to use Handlebars

m) Using REST

n) Reading POST data

o) Building Handlebars helpers

p) Adding middleware

q) How Node.js connects to databases

r) Performing CRUD operations

s) Building client requests to web services

t) Ejs

1. Cloud Computing



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- Introduction of AWS
- AWS Elastic Beanstalk(Run and manage web apps)
- Amazon RDS (Managed relational database service for MySQL, PostgreSQL, Oracle, SQL Server, and MariaDB)
- Amazon DynamoDB (Managed NoSQLdatabase)
- Amazon Simple Storage Service (S3) (Scalable storage in the cloud)
- Heroku Cloud Platform

Section 4: Projects on MEAN using all technologies:

Using Mean Stack we can create Web Applications, Mobile Applications, and Desktop Applications. We don't need to learn Android and IOS coding separately. So In our project we create complete product solution including Web App, Mobile App (For Both Android and IOS) and Desktop App. For example: digital wallet, e-ticketing system, CRM solutions, shopping kart etc. We deploy our complete project according to industry standards, for this we use different type of clouds for deployment. Some Major Projects Like;-

1. Ecommerce Web app
2. Online Examination Application
3. Online Library Management
4. Online Contact Management
5. Multilevel Marketing Management
6. CRM

Grras USP's:-

- ✓ When you have so many options to consider, why Grras should be your preferred Training Partner?
- ✓ Hence, we give you some Neutral advice:
- ✓ Take a look at our labs Infrastructure and availability.
- ✓ 100% Job Assistance for both fresher and Experienced.
- ✓ We are authorized & certified partner of Red hat & our entire team & Trainer expertise & are same.
- ✓ Lifetime membership. (You can join same course again for purpose of revision and update at free of cost at our any center) in India or you can solve your query by online help.)
- ✓ Exam Scenario based Preparation Included in training.
- ✓ From basic to practical based training on system.
- ✓ We are so flexible in time adjusting according to candidates.
- ✓ Boot camp. For exam preparation along with training.
- ✓ We have some unique features with our training programs.
- ✓ Three times Award by Red hat for best training partner.

"Be a part of GRRAS family and see the transformation"

THANK YOU



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