DIGISNARE TECHNOLOGIES

FULL STACK DEVELOPER Training

📞 **+91-9901553321**

Full Stack Developer Course Syllabus

HTML4

- Structure of HTML Page
- Tags includes in HTML Page
- What is - Script, Meta Tags and Link
- Table Properties, Div and Nested Div, Headings and Text Tags
- Anchor Tag and Hyperlinks
- Ordered and Unordered List
- Image, Iframe, Span and Other Tags
- Tags Required for Form Design and Tag Attributes
- POST and GET Method
- Text input, Field set, Legend, Hidden Textbox and Text area
- Checkbox and Radio Button
- Dropdown, List and File
- File Upload and Buttons
- How to Design - Header, Footer, Slider and
- FormsSemantic Tags - Header, Footer, Nav,Section, Article and aside tags

HTML5

- Structure of HTML5 Page
- HTML4 vs HTML5
- Multimedia - Audio, YouTube Plugin and Video tags
- The input tag new attributes and values
- Buttons, Data list, Required, Placeholder and Autofocus
- Canvas -Line, Circle, Rectangle, Rounded Rectangle, Text, Polyline& Polygon
- SVG - Line, Circle, Rectangle, Rounded Rectangle, Text, Polyline & Polygon
- HMLT5 APIs
- HTML Validators

CSS

- What is CSS?
- Types of CSS
- Types of CSS Selectors?
- Universal Selector
- ID & Class Selector
- Tag Selector and Group Selector
- Sub & Child Selector
- Attribute Selector
- Group selector
- Other CSS 2 Properties
- Text & Background Properties
- Model & DIV Properties
- List Properties
- Border and Table Properties
- Position Properties - Fixed, Absolute, Relative and Static
- CSS Menu & Form Designing

CSS3

- WCSS2 Vs CSS3
- Shadow Effect - Box and Text Shadow
- first-child and last-child
- first-line and first-letter
- before and after
- CSS 3 Properties
- Border Radius
- Advanced Background Properties
- Flex property
- New Font properties
- Opacity - RGBA
- Gradients - Linear and Radial
- Transition and Transform properties
- Animation properties
- Media Query

JavaScript

- **Types of JavaScript**
- **Variables and Functions in JS**
- **String Methods**
- **Number Methods**
- **Date Methods**
- **Dynamic Timer**
- **Alert(), Confirm () &Prompt ()**
- **parseInt(), parseFloat () & Number()**
- **Datatypes and Event Handing in JS**
- **Operators and Mathematical functions in JS**
- **Conditional and Loop Statements**
- **Window Model**
- **JS Popup Boxes**
- **JS Events & Arrays**
- **JS Object & Array**
- **Regular Expression**
- **Individual Validation**
- **Form Validation**
- **Plugin Customization**
- **Client Side Validation**

Resposive Web Design + Bootstrap

- **Introduction to Responsive Design**
- **Devices and their dimension ranges**
- **View-port tag**
- **Work with Current Version Bootstrap ../libraries**
- **Using CSS media queries**
- **Basic Custom Layout**
- **Introduction to Bootstrap**
- **Installation of Bootstrap**
- **Grid System**
- **Forms**
- **Buttons, Text Effects**
- **Tables and Images**
- **Image sliders**
- **fa icon Integration**
- **Modals**
- **Bootstrap Plugin Customization**
- **Offset Concept**
- **Nested Div**
- **Bootstrap Navigation Design**
- **Header, Footer and Layout Design**
- **Real-time Project design using bootstrap (Portfolio Project)**
- **Portfolio Design**
- **Assignments on Bootstrap templates**
- **Single Page Template**
- **Multi Page Template**
- **Single Page Template Vs Multipage Template**

FULL STACK DEVELOPER - MEAN STACK

Angular Basics

- **Intro to MVC Architecture vs other architectures.**
- **Introduction to Angular**
- **Different versions of Angular**
- **Differences between Angularjs, Angular versions**
- **Environment Setup**
- **First Application using Angular.**
- **Components**
- **Generating Components using Angular CLI**
- **Templates**
- **Directives**
- **Dependency Injection**
- **Generating Services using CLI.**

Working with Data Events

- **Property Binding**
- **Attribute Binding**
- **Adding bootstrap**
- **Style Binding**
- **Event Binding**
- **Template Variables**
- **Two-way Binding**
- **Pipes**
- **Custom Pipes**
- **Pure and Impure Pipes**

Components in detail

- **Input Properties**
- **Aliasing Input Properties**
- **Output Properties**
- **Passing Event Data**
- **Aliasing Output Properties**
- **Templates**
- **View Encapsulation**
- **ngContent and ngContainer**

Deep dive in to Directives.

- **Introduction**
- **ngIf and else**
- **Hidden Property**
- **ngFor and Change Detection**
- **The Leading Asterisk**
- **ngClass,ngStyle**
- **Safe Traversal Operator**
- **Creating Custom Attribute Directives**
- **Creating Custom Structural Directives**

Working with Template-driven forms

- **Building a Bootstrap Form**
- **Types of Forms**
- **ngModel,ngForm,ngModelGroup**
- **Working with Check Boxes,Drop-down Lists, Radio Buttons.**
- **Realtime Template driven forms.**

Developing Reactive Forms

- **Introduction**
- **Creating Controls Programmatically**
- **Adding Validation**
- **Specific Validation Errors and Custom Validation**
- **Asynchronous Operations**
- **Asynchronous Validation**
- **Showing a Loader Image**
- **Validating the Form Upon Submit**
- **Nested FormGroups,FormArray,FormBuilder**

Working with HTTP Services

- **Overview of Web Services**
- **SOAP and Restful Web Services**
- **Creating Services**
- **Consuming HTTP Restful Services.**
- **CRUD Operations**
- **Observables and Promises**
- **Error Handling**
- **Best Practices**

Routing and Navigation

- **Introduction**
- **Routing in a Nutshell**
- **Configuring Routes**
- **RouterOutlet**
- **RouterLink**
- **RouterLinkActive**
- **Getting the Route Parameters**
- **Programmatic Navigation**

Advanced Concepts of Angular

- **Angular Security**
- **Developing PWA**
- **Unit Testing using Jasmine**
- **E2E Testing using Protractor**

NodeJS

- Introduction to NodeJS
- History of NodeJS
- Features of NodeJS
- Architecture of NodeJS
- Environment Setup
- Running First Application
- REPL Terminal
- NPM
- Callbacks
- Event-driven programming
- Working with FileSystem
- Understanding Global Objects
- Streams
- Intro to Modules
- OS Module
- Path Module
- Crypto Module
- Debugger
- Understanding HTTP Module
- Creating a server
- Handling requests.
- URL Module
- Net Module

Express

Basics of ExpressJS

- Getting started with Express

- Features of Express
- Installation of express
- First Application using Express JS
- Understanding Express JS Request
- Request object
- Request object properties
- Request object methods
- Real time example
- Understanding Express JS Response
- Response object
- Response object properties
- Response object methods
- Understanding Get and Post operations
- Intro to Get Request
- Developing code to handle Get Request
- Intro to Post Request
- Developing code to handle Post Request

Routing in Express

- Intro to Routing
- Route methods
- Route Paths
- Route Params
- Route Handlers
- Response methods

Working with Middleware.

- Getting started with middleware
- Writing middleware
- Configuring middleware
- Using middleware
- Application level middleware
- Router-Level Middleware
- Error-handling middleware
- Built-in Middleware
- Third-party Middleware

Template Engines

- Introduction to Template Engines
- Different Template Engine
- Intro to Pug
- Using pug with express
- Working with EJS
- Working with handlebars

Advanced Express JS

- Error Handling
- File Uploading Real Time Modules
- Nodemailer
- Multer

MongoDB

- Introduction to MongoDB Database
- Getting started with MongoDB
- Features of MongoDB
- Environment Setup

MongoDB

Basics of MongoDB

- Insert
- Update
- Delete
- Retrieve

- Creating First Database

- Creating Document and Saving it to Collection
- Dropping a Database
- Creating a Collection Using db. create Collection (name ,options)
- Dropping a Collection

CRUD Operations

- Creating/Inserting a document in collection using javascript file
- Inserting Array of Documents
- Reading a Document - Querying
- Reading a Document with $lt, $gt operator
- Updating Documents
- Deleting documents

Indexes and ObjectIds

- Introduction to Indexes
- Understanding Impact of Indexes
- Creating Index
- Finding Indexes
- Understanding ObjectIds
- Creating ObjectIds
- Advantages of ObjectIds created by MongoDB
- Disadvantages of ObjectIds created by MongoDB

Aggregation and Data Modelling in MongoDB

- Using aggregate() method
- Using distinct() and count()
- Sorting documents
- Introduction to Data Modelling in MongoDB
- Data Modeling using References
- Data Modeling using Embedded documents

Relationships in MongoDB

- One-To-One Relationship
- One-To-Many Relationship
- Many-To-Many Relationship

MongoDB with Nodejs

- Introduction
- Using MongoClient
- Using Mongoose
- Creating database using MongoClient and Mongoose

CRUD operations on MongoDB with Nodejs

FULL STACK DEVELOPER MERN STACK

ECMASCRIPT 6

- **Intro to ES6.**
- **Arrow Functions**
- **Default parameter values**
- **Rest parameter**
- **Spread Operator**
- **String Interpolation**
- **Custom Interpolation**
- **Modules(Importing and Exporting)**
- **Intro to Classes.**
- **Working with Classes and Generators.**
- **Class Inheritance.**
- **Static members**
- **Setters and Getters.**
- **Generators**
- **Working with Promises and Internationalization/ Localization.**

React JS

- **Environment Setup**
- **Introducing JSX**
- **Rendering Elements**
- **Components and Props**
- **State and Lifecycle**
- **Handling Events**
- **Conditional Rendering**
- **Lists and Keys**
- **Forms**
- **Composition vs Inheritance**
- **Thinking In React**
- **Web Services**
- **Accessibility**
- **Code-Splitting**
- **Context**
- **Error Boundaries**
- **Forwarding Refs**
- **Fragments**
- **Higher-Order Components**
- **Integrating with Other Libraries**
- **Youtube Clone Application**

ReactJS

- **React JS Basics**
- **React JS Features**
- **React JS Setup and Hello World Application**
- **React JS JSX**
- **React JS Component**
- **React JS State**
- **React JS Props**
- **React JS Constructor**
- **React JS Lifecycle**
- **React JS Events**
- **React JS Router**
- **React JS Forms**
- **React JS Tables**
- **React JS Portals**
- **React JS ES6**
- **React JS CSS**
- **React JS Hook**
- **React JS and Back End Integration**
- **React JS Using Back End CRUD Application**
- **React JS, JDK 1.8, Spring Boot, Hibernate, Maven, MySQL, Microservices, Project Lombok- Project Implementation**

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- **History of NodeJS**
- **Features of NodeJS**
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CONTACT US

+91-9901553321

INFO@DIGISNARE.COM

First Floor, Keonic IT Park, Akkamahadevi
Colony, Kalaburagi, Karnataka - 585103
Landmark : Opposite High Court

www.digisnare.com