

# **MERN Stack Development Syllabus**

**DURATION – 6 MONTHS**

**MODE OF TRAINING – OFFLINE/ONLINE**



- 
- **Introduction to HTML**
  - **Basic HTML Tags**
  - **Text Formatting & Styles**
  - **Lists**
  - **Links & Navigation**
  - **Images & Multimedia**
  - **Tables**
  - **Forms & Input Elements**



# HTML5



- **Introduction to HTML5**
- **Semantic Elements**
- **HTML5 Forms & Input Types**
- **Audio & Video**
- **SVG (Scalable Vector Graphics)**
- **Project-1 static website**





# CSS

- Introduction to CSS
- Selectors & Combinators
- Box Model
- Colors & Backgrounds
- Typography (Fonts & Text Styling)
- Lists & Tables
- CSS Positioning & Layout



Activate Windows



# CSS 3

- **Introduction to CSS 3**
- **Flexbox**
- **Grid Layout**
- **Pseudo classes and Pseudo elements**
- **Transitions & Animations**
- **CSS3 Shadows & Effects**
- **Media Queries & Responsive Design**
- **Advanced CSS Techniques**
- **Project-2 Responsive Website**



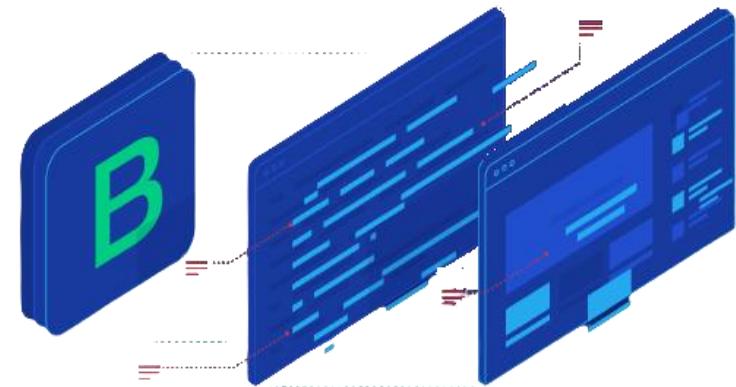


# BOOTSTRAP 4

## BOOTSTRAP 4

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- Installation Of Bootstrap 4
- Bootstrap Forms
- Bootstrap Containers
- Bootstrap Colors
- Bootstrap Buttons
- Bootstrap Cards
- Bootstrap Dropdowns
- Bootstrap Navbar
- Bootstrap Carousel
- Bootstrap Components
- Bootstrap Grid System
- Project-3 Responsive Website Development

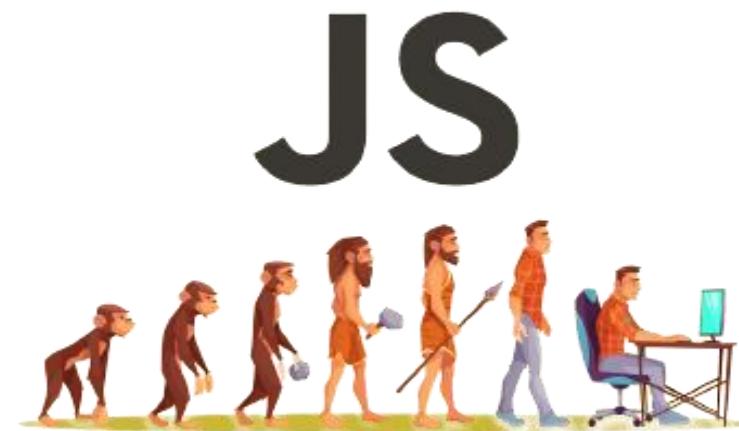


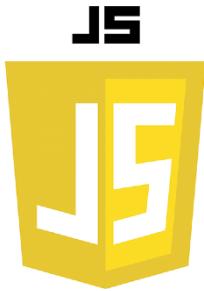


# JavaScript



- **Introduction to JavaScript**
- **JavaScript Basics**
- **Control Structures**
- **Functions**
- **Arrays & Objects**
- **DOM Manipulation**
- **Event Handling**
- **ES6+ Features**





# Advance Java Script



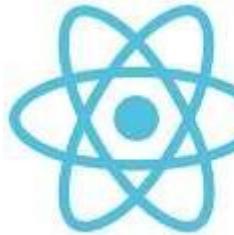
- **Asynchronous Programming**
- **Closures & Scope**
- **Error Handling**
- **Project-4**



# JQuery Syllabus



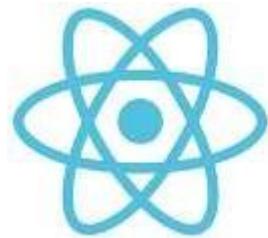
- **jQuery Intro**
- **jQuery Syntax**
- **jQuery Selectors**
- **jQuery Effects**  
**Hide/Show,Fade, Slide ,Animate,stop() ,Callback, Chaining**
- **jQuery Get & Set**
- **jQuery Add jQuery & Remove**
- **jQuery CSS Classes & css(),Dimensions**
- **jQuery Traversing**
- **jQuery Traversing, Ancestors, Descendants, Siblings, Filtering**
- **jQuery AJAX**
- **1 Template website**



**React JS**



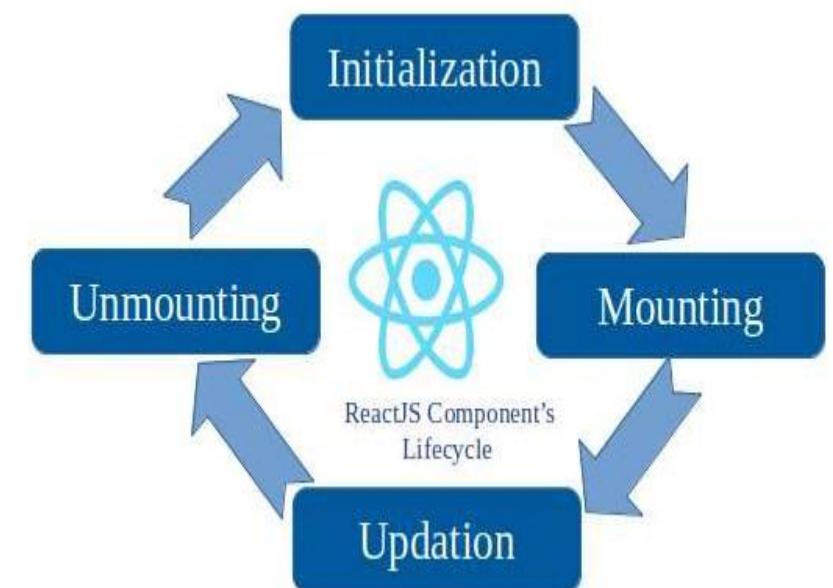
- 
- **Introduction to React.js**
  - **Core Concepts of React**
  - **How does React work?**
  - **Introduction to JSX**
  - **React Hooks**
  - **React Forms and Validations**
  - **React Router (Navigation in React)**
  - **State Management in React**
  - **Working with APIs in React**
  - **Performance Optimization in React**
  - **React UI Libraries and Styling**



**React JS**



- **Component Life-Cycle**
- **Render() method – Behind the Scenes**
- **Component Lifecycle – Creation**
- **Component Lifecycle – Updation**
- **shouldComponentUpdate() Lifecycle Method**



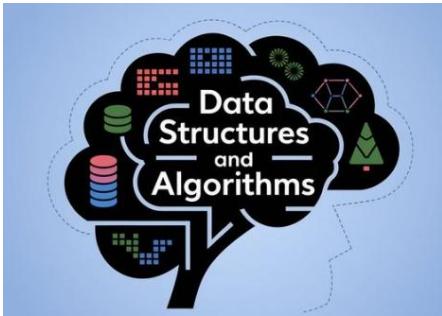


# Version Control System



- **Introduction to Version Control**
- **Getting Started with Git**
- **Git Workflow**
- **Branching in Git**
- **Merging and Resolving Conflicts**
- **Working with GitHub**
- **Collaboration Workflows**
- **Advanced Git Commands and Techniques**
- **Best Practices for Git and GitHub**





# Data Structures and Algorithms



- Time & Space Complexity
- Recursion
- Math Problem & Algorithm
- Linked List
- Stacks and Queues
- Sorting Algorithms (Bubble, Selection, Insertion, Merge, Quick)
- Searching Algorithms (Binary Search, Linear)





# Node Js



- **Introduction to Node.js and Setup**
- **Modules and NPM**
- **Core Modules in Node.js**
- **File System Operations**
- **Creating a server with HTTP**
- **Middleware**
- **Asynchronous Programming in Node.js**
- **Working with Databases**



# Express js



- **Introduction & Setup of Express.js**
- **Express.js Fundamentals**
- **Working with Templates & Views**
- **Handling Forms and Requests**
- **Database Integration**
- **Authentication & Authorization**
- **REST API Development**
- **File Uploads and Handling**
- **Web Sockets and Real-time Communication**



# MongoDB



- **Introduction to MongoDB**
- **MongoDB Basics**
- **CRUD Operations in MongoDB**
- **Database Integration**
- **Querying and Filtering Data**
- **Indexing in MongoDB**
- **Aggregation Framework**
- **Relationships in MongoDB**
- **MongoDB with Node.js**
- **MongoDB Cloud**



# SQL Syllabus



- Microsoft SQL Server installation
- Introduction to Basic Database Concepts
- Introduction to SQL Server
- DDL and DML Statements
- Working with Constraints
- Working with Queries (DQL)
- Joins and Set Operations
- Implementing Views
- Working with Stored Procedures and Functions
- Cover 400+ queries

# Aptitude

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## Quantitative Aptitude

- **Average**
- **Percentage**
- **Profit and Loss**
- **Simple Interest**
- **Compound Interest**
- **Ratio Proportion**
- **Time and Work**
- **Time**
- **Speed**
- **Distance Number**
- **System**
- **Permutation and Combination**
- **Probability**
- **Data Interpretation**

## Logical Reasoning

- **Blood Relation**
- **Direction sense**
- **Coding and decoding**
- **Clocks and Calendar**
- **Cubes and Dices**
- **Seating arrangement**
- **Syllogism**
- **Data sufficiency**
- **Puzzles**
- **Miscellaneous**



# Softskill



- Setting the tone
- Introduction of Be Employable
- Competency Matrix
- Effective Communication
- Presentation skills
- Business Communication
- Attitude + Motivation
- Emotional Intelligence
- Leadership
- Create CV/Resume
- Group Discussion
- Mock Group Discussion
- PI practice
- Virtual Interview
- Industry Knowhow and future, Certifications and action plan

# Key Feature

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- Trainer with 12+ Years of Experience
- 200 hours of high-quality course
- Best Quality Training
- Live Project Experience
- Demo Lectures are available
- In-depth Course Contents
- 100 % Placement Assistance
- Internship support



# Orange Itech Offer You



INTERNSHIP





# THANK YOU

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