ARIYALAM

Full Stack Developer Course

Our Full Stack Developer course is designed to transform aspiring tech enthusiasts into proficient developers capable of building complete web applications. Covering both front-end and back-end technologies, students will gain hands-on experience in HTML, CSS, JavaScript, databases, and server management. This comprehensive training equips learners with in-demand skills, preparing them for versatile roles in the tech industry, from startups to established enterprises.

Course Duration: 3 Months

Flexible Timing: Weekdays & Weekend

Minimum Batch Size

100 % Placement Assistance

Key Features:

Instructor-led Live Online Training
Hands-on Learning
Flexible Schedules
Experienced Trainers
100% Job Assistance
Real-Time Projects
Study Materials
Interview Preparation Guidelines
Global Certification Support

Full Stack Web Development Course Prerequisites:

Our Full Stack Developer course is designed to help learners build versatile web development skills. While beginners are welcome, some foundational knowledge in programming is beneficial. Familiarity with HTML, CSS, and JavaScript basics will enhance your experience. Problem-solving skills and a passion for coding will also contribute to your success.

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Full Stack Developer Course Syllabus

1. **HTML5 and CSS3**

   HTML Basics

- Basic tags: headings, paragraphs, links, lists, and images
- New HTML5 tags: <header>, <footer>, <article>, <section>, etc.
- Forms and validations
- Local storage and IndexDB for storing data in the browser

   CSS3 Basics

- CSS syntax and selectors
- Styling elements: colors, borders, margins, padding
- CSS3 properties: gradients, shadows, and rounded corners
- Animations and transitions
- Tooltips, flexbox, and CSS grid for layout

- CSS Framework: Bootstrap
    - Setting up and using Bootstrap for responsive design
    - Layouts with Bootstrap grid
    - Using Bootstrap components like navigation bars, buttons, modals

   2. JavaScript and jQuery

   JavaScript Basics:

- Getting Started
    - Introduction to JavaScript: variables, data types, operators, and expressions
    - Functions, parameters, and return values
    - Flow control: if statements, loops, switch cases

- JavaScript Essentials
    - Objects, arrays, and common methods (sort, filter, map)
    - Functions: hoisting, closures, and scope
    - Error handling and debugging

- Working with the DOM
    - Selecting and modifying HTML elements
    - Adding and removing elements dynamically

  - Event handling (clicks, mouseover, etc.)
  - Introduction to the Browser Object Model (BOM): window, screen, location, history, cookies

- JavaScript and JSON
  - Data types in JSON
  - Parsing and stringifying JSON data
  - Using JSON in AJAX and API calls

- JavaScript vs. jQuery
  - Basics of jQuery: selectors, events, and animations
  - DOM manipulation with jQuery
  - AJAX calls with jQuery

3. AJAX and Asynchronous Programming

- AJAX Fundamentals
  - XMLHttpRequest and Fetch API for asynchronous data loading
  - Promises and async/await for handling asynchronous tasks
  - Working with APIs and fetching data

4. Angular

Modern Front-End Framework

- Getting Started with Angular
  - Introduction to Angular and key features
  - Setting up an Angular project and basic project structure
  - Components, modules, and services

- Angular Essentials
  - Data binding: one-way and two-way
  - Pipes for data transformation
  - Directives (ngIf, ngFor, ngSwitch) for conditional rendering

- Forms in Angular
  - Template-driven and reactive forms
  - Form validation and error handling

- Angular Services and HTTP Client
  - Creating and injecting services
  - Using HTTP Client for API calls
  - Observables and RxJS

- Routing and Navigation
  - Defining routes and navigating between components
  - Route guards and lazy loading

- Building & Deployment
  - Building Angular apps with ng build
  - Deploying an Angular app

5. Databases

Database Essentials for Full Stack Development

- MongoDB (NoSQL Database)
  - Introduction to MongoDB and NoSQL concepts
  - Basic CRUD operations (Create, Read, Update, Delete)
  - Mongoose for schema-based data modeling
  - Indexing, aggregation, and connecting MongoDB with Node.js

- MySQL (Relational Database)
  - Basics of MySQL and SQL queries
  - CRUD operations and managing relationships
  - Connecting to MySQL from Node.js using the MySQL library

6. Node.js and Express

Back-End Development with JavaScript

- Node.js Basics
  - Setting up Node.js and using Node Package Manager (NPM)
  - Core concepts: asynchronous programming, event loop, and callbacks
  - File system, buffers, and managing modules

- Express Framework
  - Setting up Express for handling server requests and responses
  - Routing, middleware, and creating RESTful APIs
  - Using JSON for API responses and data handling

- Template Engines and Views
  - Introduction to template engines (e.g., EJS)
  - Creating dynamic views with templating

- File Handling in Node.js
  - Reading and writing files

- Asynchronous file operations

- WebSocket's and Real-Time Communication
  - Setting up Socket.io for real-time communication
  - Building a simple chat application with Express and Socket.io

7. Building Full-Stack Projects

Putting It All Together

- Basic CRUD Applications
  - Building CRUD operations (Create, Read, Update, Delete) with Node.js and MongoDB
  - Integrating front-end with Angular or React

- Authentication and Authorization
  - Using JSON Web Tokens (JWT) for secure authentication
  - Implementing roles and permissions for protected routes

- Deployment
  - Deploying applications to cloud platforms (e.g., Heroku, AWS, or DigitalOcean)
  - Environment management and setting up production configurations

8. PHP Essentials (Optional)

Introduction to Server-Side Scripting with PHP

- Basics of PHP and setting up a PHP server
- PHP and MySQL for database operations
- Basic CRUD operations with PHP

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FAQ:

1. What is a Full Stack Web Development?

A Full Stack Developer is skilled in both front-end and back-end web development, handling the user interface, server, database, and application logic for a complete project.

2. What will I learn in a Full Stack Development course?

You'll learn HTML, CSS, JavaScript, back-end programming (often Python, Ruby, or Node.js), database management, APIs, version control, and how to deploy full-stack applications.

3. How long does it take to become a Full Stack Certification Course?

Course duration varies, typically between 3 to 12 months, depending on whether it’s full-time, part-time, or self-paced, and your prior knowledge.

4. Do I need prior coding experience?

While it helps, many courses start with foundational programming skills. Beginners are welcome, though a basic understanding of coding can ease the learning process.

5. What career opportunities are available after completing a Full Stack course?

Graduates can pursue roles like Full Stack Developer, Web Developer, Software Engineer, and Front or Back-End Developer, with demand in industries across tech, finance, and more.

6. What top companies have Jobs in Full Stack Developer?

Accenture, Google, Capgemini, IBM, Infosys, TCS, Wipro, and More.