

Frontend Development

Complete Course Syllabus

HTML5 | CSS3 | JavaScript | React.js

Duration: 8 Weeks | Level: Beginner to Advanced | Certificate: Yes

■ Course Overview

This focused Frontend Development course takes you from zero to a confident frontend developer. You will master HTML5, CSS3, modern JavaScript (ES6+), and React.js — the most in-demand frontend skills in the industry. The course includes hands-on mini projects and a capstone project to build your portfolio.

Duration	Mode	Level	Certificate
8 Weeks	Online + Offline	Beginner to Advanced	Yes

■ Skills You Will Learn

HTML5 & Semantic Web	CSS3 Flexbox & Grid	Responsive Design
JavaScript ES6+	DOM Manipulation	Async / Promises / Fetch
React.js & JSX	React Hooks	React Router
Context API	Redux Toolkit	Custom Hooks
Tailwind CSS	Git & GitHub	Deployment (Vercel/Netlify)

■ Week-by-Week Curriculum

Week 1–2: Web Fundamentals

- HTML5 – Semantic elements, Forms, Tables, Multimedia
- CSS3 – Flexbox, Grid, Animations, Transitions, Media Queries
- Responsive Design principles & Mobile-first approach
- Introduction to VS Code & browser developer tools

■ **Mini Project: Personal Portfolio Website**

Week 3–4: Advanced JavaScript & ES6+

- ES6+ Features – Arrow Functions, Destructuring, Spread/Rest
- Promises, Async/Await, Fetch API
- Array Methods – map, filter, reduce, forEach
- Closures, Hoisting, Scope Chain, this keyword
- Modules (import/export), Classes & Prototypes
- Error Handling & Debugging techniques
- DOM Manipulation & Event Handling

■ **Mini Project: Interactive Quiz App**

Week 5–6: React.js – Frontend Framework

- React Introduction – JSX, Components, Props
- State Management with useState, useEffect
- React Router – Navigation, Dynamic Routes, Protected Routes
- Forms in React – Controlled & Uncontrolled Components
- Context API for Global State Management
- Custom Hooks & Performance Optimization
- Styling – CSS Modules, Tailwind CSS, Styled Components

■ **Mini Project: Task Management App (Full CRUD Todo)**

Week 7: State Management & Advanced React

- Redux Toolkit – Store, Slices, Actions, Selectors
- useReducer & useContext patterns
- React Query / data-fetching patterns
- Code splitting & lazy loading
- React performance optimization (memo, useMemo, useCallback)

Week 8: Deployment & Career Preparation

- Git & GitHub – Branching, Merging, Pull Requests
- Frontend Deployment – Vercel, Netlify
- Environment Variables & Build Optimization
- Portfolio building tips & Resume guidance
- Mock interviews & common frontend interview questions

■ **Mini Project: Deploy Portfolio + Task Management App**

■ Capstone Projects

Project	Tech Stack	Description
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1. Personal Portfolio Website	HTML, CSS, JavaScript	Responsive portfolio showcasing projects, skills, and contact info. Deployed on GitHub Pages / Vercel.
2. Interactive Quiz Application	JavaScript, DOM Manipulation	Dynamic quiz app with timer, score tracking, leaderboard, and multiple question categories.
3. Task Management App	React.js, Context API, LocalStorage	Full CRUD Todo app with filters, search, drag-and-drop, theme toggle, and persistent state.
4. E-Commerce Frontend	React.js, Redux Toolkit, Tailwind CSS	Product listing, cart, wishlist, and checkout UI connected to a public API or mock backend.

■ Tools & Technologies

Category	Technologies
Markup & Styling	HTML5, CSS3, Tailwind CSS, Styled Components
JavaScript	ES6+, DOM API, Fetch API, Async/Await
Framework	React.js (Hooks, Router, Redux Toolkit)
Version Control	Git, GitHub (branches, PRs, actions)
Deployment	Vercel, Netlify, GitHub Pages
Dev Tools	VS Code, Chrome DevTools, Postman (API testing)

■ What You Get

■ Live Classes	8 weeks of instructor-led live sessions
■ Recorded Sessions	Lifetime access to all class recordings for revision
■ 4 Real Projects	Portfolio-ready projects with source code
■ Certificate	Course completion certificate
■ Doubt Support	Daily doubt-clearing sessions
■ Community	Access to student community & alumni network
■ Resume Building	Professional resume & LinkedIn profile guidance
■ Interview Prep	Mock interviews & common frontend questions

■ Contact & Enrollment

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Visit the website or call us to enroll!

* Syllabus is subject to minor updates based on industry trends and student feedback.