R Square
IT SUPPORT

Frontend Development Roadmap & Syllabus

Build the part of the application users see and touch — fast, accessible and responsive interfaces that work on every screen size.

HTML5 | CSS3 / SCSS | JavaScript | TypeScript | Angular | React | Git

FRESHERS & STUDENTS	EXPERIENCED (JOB SWITCHERS)	WORKING PROFESSIONALS
4–5 months	**2–3 months**	**3–5 months (alongside work)**

Durations are approximate and assume about 2–3 hours of focused study a day. Move faster or slower as you need — understanding matters more than speed.

Contents: 1. Freshers & Students · 2. Experienced (Job Switchers) · 3. Working Professionals · 4. Complete Syllabus

Freshers & Students

Starting from the basics and preparing for a first developer job.

Approximate duration: 4–5 months — From your first web page to a portfolio of responsive, framework-based projects.

1 HTML & CSS — 4 weeks

- Semantic HTML and forms
- Flexbox, Grid and responsive design
- Recreate 3–4 real website layouts

Milestone: Build pixel-accurate, responsive pages from a design.

2 JavaScript — 5 weeks

- Fundamentals and DOM
- Events and form handling
- Async JavaScript and fetch
- Small projects: quiz, weather app, todo list

Milestone: Build interactive features without a framework.

3

TypeScript & a Framework

6 weeks

- TypeScript essentials
- Angular or React fundamentals
- Routing, forms and API calls

Milestone: Build a multi-page app with a framework.

4

Portfolio & Interview Prep

3 weeks

- Personal portfolio website
- Deploy projects and publish on GitHub
- HTML, CSS and JavaScript interview questions

Milestone: Share a live portfolio with 3 solid projects.

Projects to build

- Responsive landing page for a local business
- Weather or movie search app using a public API
- Personal portfolio website

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Experienced (Job Switchers)

1–4 years of experience, preparing to switch jobs or move to a stronger role.

Approximate duration: 2–3 months — Go beyond building screens: performance, accessibility and framework internals.

1

JavaScript & Framework Depth

4 weeks

- Event loop and rendering
- Change detection (Angular) or reconciliation (React)
- State management patterns
- Component design

Milestone: Explain how your framework updates the screen.

2

Performance & Accessibility

3 weeks

- Core Web Vitals and Lighthouse
- Lazy loading and bundle analysis
- WCAG basics and screen-reader testing

Milestone: Measurably improve a real page's speed and accessibility.

3

Testing & Interview Prep

3 weeks

- Unit and component tests
- Machine-coding rounds
- JavaScript output questions
- Mock interviews

Milestone: Complete a timed UI-building round confidently.

Projects to build

- Accessible, responsive dashboard with charts
- Reusable form library with validation
- Performance audit and fixes on an existing site

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Working Professionals

Working developers upskilling toward senior, lead or architect responsibilities.

Approximate duration: 3–5 months (alongside work) — Own frontend architecture, design systems and quality standards for a product.

1

Design Systems

4 weeks

- Component libraries and tokens
- Documentation (Storybook)
- Theming and dark mode

Milestone: Ship a shared component library used by others.

2

Architecture & Rendering

4 weeks

- SSR, SSG and hydration
- Monorepos and micro-frontends
- API contracts with the backend

Milestone: Choose a rendering strategy for a product and justify it.

3

Leadership & AI-assisted UI

Ongoing

- Code review standards
- Mentoring juniors
- Building AI chat and assistant interfaces
- Responsible AI tool use

Milestone: Set frontend standards and mentor a team.

Projects to build

- Design system with Storybook
- SSR app with a performance budget in CI
- AI assistant UI with streaming responses

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Complete Frontend Development Syllabus

Everything this track covers, grouped by topic. Use it as a checklist.

01 HTML & Accessibility

- Semantic HTML
- Forms and inputs
- ARIA basics
- Keyboard navigation
- SEO-friendly markup

02 CSS & Responsive Design

- Box model and positioning
- Flexbox and Grid
- Media queries and mobile-first design
- SCSS
- Animations and transitions
- Tailwind CSS (overview)

03 JavaScript

- Scope, closures and this
- DOM and events
- Promises, async/await and fetch
- The event loop
- ES6+ modules
- Browser storage

04 TypeScript

- Types and interfaces
- Generics
- Utility types
- Typing API responses

05 A Framework: Angular or React

- Components and templates/JSX
- Routing
- Forms and validation
- State management
- Calling REST APIs
- Testing components

06 Performance

- Core Web Vitals
- Lazy loading and code splitting
- Image optimisation
- Caching basics

07 Tools & Workflow

- Git and GitHub
- npm and build tools (Vite, Angular CLI)
- Browser DevTools
- Deploying static sites

Roles this track prepares you for

Frontend Developer · UI Developer · Angular Developer · React Developer

Want a personal plan or interview preparation?

Visit rsquareitsupport.com or contact us: rsquareitsupport@gmail.com · +91 90190 83213 · +91 87679 68300.

Roadmaps are for learning guidance and do not guarantee jobs or placements.

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