

Module 1: Web Designing

Pre-requisites	Matric & Computer Familiarity	Topics
		Internet
Duration	2.5 Months	How Does The Internet Work
Quizzes	1. HTML5	What is HTTP?
	2. CSS3	Domain Name
Hackathon	After completion	Hosting
		DNS
		Browsers

- **HTML5**
- [Book](#)
- **CSS3**
- [Book](#)
- **CSS Animations**
- [Animate.style](#)
- **Media queries**
- [CSS-Tricks](#)
- **Flexbox**
- [CSS-Tricks](#)
- **Font Awesome**
- [Fontawesome](#)
- **Bootstrap**
- [Bootstrap](#)
- **Google Fonts**
- [Google Fonts](#)

Figma

Plugins

Developer Mode

- Pixel Perfect UI
- Explore if there are any AI tools
- Web Accessibility
- Netlify Hosting
 - Netlify

- Git & Github Basics
 - Github Desktop
- Domain & Hosting Subscription (Deployment)
 - Namecheap

Module 2: Front-End Development

Pre-requisite	Module 1
Duration	4.5 Months
Quizzes	1. JS1 (Chapters 1 to 20) 2. JS2 (Chapters 21 to 40) 3. JS3 (Chapters 41 to 60) 4. JS4 (Chapters 61 to 89) 5. TypeScript 6. Git
Hackathon	After completion

Topics

- **JavaScript**
 - Docs
 - Assignments
 - Fetch API/ AJAX
- **Advanced Javascript (All ES Versions)**
 - Variable Scoping
 - Closure
 - Template literals
 - Destructuring
 - Default parameters
 - Rest parameter
 - Spread Operator
 - Arrow functions

- Enhanced object literals
- Iterators & For..of
- Generators
- Modules
- Map
- Array methods
- Higher-order function
- CallBack
- Promises
- Exponentiation Operator
- Classes
- Ternary Operator
- Optional chaining

- **TypeScript**

- TS Compiler
- Type Annotations
- Interfaces
- Classes
- Generics
- Enums
- Type Inference
- Union and Intersection Types
- Type Guards
- Decorators

- **Advance Github**

- Branches
- PR
- PR review
- Merge
- Rebase
- Cherry Pick

- **GSAP Animations**

- **Supabase**

- Authentication
 - Email
 - Google

- Database
- Storage
- Certifications
 - JavaScript by Jetbrain

Module 3: Modern Front-End Development

Prerequisites	Module 1, 2
Duration	3 Months
Quizzes	1. ReactJS
Hackathon	After completion

Topics

- Node runtime
- Package Managers
 - NPM
 - Yarn
- ReactJS V19
 - CRA
 - Vite
 - Linters & Formatters
 - Module Bundlers
 - Context API
 - Redux & RTK
 - TanStack Query
 - Zustand (Optional)
 - Axios (API Integration)
- Tailwind
- Shadcn
- Authentication Strategies
 - Web Security Knowledge
 - CORS
 - HTTPS
 - Content Security Policy

- OWASP Security Risks
- NextJS Introduction
- Testing
 - Playwright/ Vitest
- Certifications
 - React Nano degree
 - Meta Front-End

Module 4: Back-End App Development

Prerequisites	Module 2
Duration	4 Months
Quizzes	1. NodeJS/ Express 2. MongoDB 3. PostgreSQL
Hackathon	After completion

Topics

- NodeJS
 - ExpressJS
 - RESTful APIs
 - Architecture
 - Basic Routes
 - Database Connection
 - CRUD
 - Authentication
 - Middleware
 - Protected Routes
 - JWT
 - WebSocket
 - Bcrypt
 - Cloudinary
 - Redis

- Node-cache
- Messaging Queue
- File System module
- Socket IO
- MongoDB
 - CRUD
 - Queries
- PostgreSQL
 - CRUD
 - Queries
- Payment Integration
- Stripe
- Paypal
- Linux Basics
- Deployment (Google Cloud)

Module 5: Mobile App Development

Prerequisites	Module 2
Duration	1 Month
Quizzes	1. React Native
Hackathon	After completion

Topics

- React Native
- CLI
- Expo
- Build
- App Publish
- IOS & ANDROID