

Suleman Sagheer Dev Academy

Complete Frontend, Backend & Professional Vibe Coding — A to Z

This professional roadmap contains 365 implemented daily lessons. Every website lesson includes explanation, workflow, code or a structured example, mistakes, best practices, assignment, quiz and a separate downloadable PDF.

Web Foundations — Days 1–15

Understand the web, browsers, servers, networks, hosting and professional development tools.

Day	Lesson
1	Web Development Overview
2	How the Internet Works
3	Client and Server Architecture
4	HTTP and HTTPS
5	URLs, Resources and Web Routing
6	Domains and Domain Registration
7	DNS Records and Propagation
8	Web Hosting and Server Types
9	How Browsers Render Webpages
10	Frontend and Backend Responsibilities
11	Static and Dynamic Websites
12	Choosing and Configuring a Code Editor
13	Command Line and Terminal Fundamentals
14	Browser Developer Tools
15	Professional Project Folder Structure

HTML — Days 16–40

Create semantic, accessible and search-friendly webpage structures.

Day	Lesson
16	HTML Introduction and Standards
17	DOCTYPE and Document Structure
18	The Head Element and Metadata
19	Text, Paragraphs and Headings
20	Semantic Text Elements
21	Links and Navigation
22	Images, Alt Text and Figure Elements
23	Relative and Absolute File Paths
24	Ordered, Unordered and Description Lists
25	Accessible Data Tables

Day	Lesson
26	Forms and the Form Element
27	HTML Input Types
28	Labels, Fieldsets and Form Accessibility
29	Native Form Validation
30	Buttons and Interactive Controls
31	Semantic Page Layout
32	Audio and Video Elements
33	Iframes and Embedded Content
34	Details, Summary and Dialog Elements
35	HTML Entities and Special Characters
36	HTML Accessibility Fundamentals
37	ARIA Roles and Attributes
38	On-Page SEO with HTML
39	Structured Data Introduction
40	HTML Validation and Final Website Project

CSS and Responsive Design — Days 41–80

Design modern interfaces, responsive layouts, components and animation systems.

Day	Lesson
41	CSS Introduction and Ways to Add Styles
42	CSS Syntax, Rules and Declarations
43	Basic Selectors
44	Attribute Selectors and Combinators
45	Pseudo-classes
46	Pseudo-elements
47	The Cascade
48	Specificity
49	Inheritance and Initial Values
50	CSS Units
51	Colour Systems
52	Typography Fundamentals
53	Web Fonts and Font Loading
54	The CSS Box Model
55	Width, Height and Box Sizing
56	Display and Visibility
57	Positioning Fundamentals
58	Z-index and Stacking Contexts
59	Overflow and Scroll Behaviour
60	Backgrounds and Background Images

Day	Lesson
61	Borders, Outlines and Border Radius
62	Box Shadow and Text Shadow
63	CSS Gradients
64	Flexbox Fundamentals
65	Advanced Flexbox Layouts
66	CSS Grid Fundamentals
67	Advanced Grid Layouts
68	Media Queries
69	Container Queries
70	Mobile-First Responsive Design
71	CSS Custom Properties
72	calc(), min(), max() and clamp()
73	Transitions
74	2D and 3D Transforms
75	Keyframe Animations
76	Styling Forms and Controls
77	Reusable UI Components
78	BEM Naming Methodology
79	CSS Architecture and Maintainability
80	CSS Accessibility, Performance and Capstone

JavaScript — Days 81–135

Build interactive browser applications using modern JavaScript and web APIs.

Day	Lesson
81	JavaScript Introduction and Runtime Environments
82	Adding JavaScript to a Webpage
83	Variables with let, const and var
84	Primitive and Reference Data Types
85	Operators and Expressions
86	Type Conversion and Coercion
87	Template Literals
88	Conditional Statements
89	The switch Statement
90	Loops and Iteration
91	Functions and Function Declarations
92	Parameters, Arguments and Return Values
93	Scope and the Scope Chain
94	Hoisting
95	Closures

Day	Lesson
96	Arrays
97	Essential Array Methods
98	Objects and Object Properties
99	Destructuring Assignment
100	Spread and Rest Syntax
101	Working with Strings
102	Numbers and the Math Object
103	Dates and Time
104	JSON Data
105	Error Types and try...catch
106	Debugging with Browser Developer Tools
107	Selecting DOM Elements
108	Reading and Updating DOM Content
109	Creating, Inserting and Removing Elements
110	Browser Events
111	Event Propagation and Delegation
112	Forms and Client-Side Validation
113	LocalStorage
114	SessionStorage
115	JavaScript Modules
116	Classes and Constructors
117	Object-Oriented JavaScript
118	Functional Programming Concepts
119	map(), filter() and reduce() in Depth
120	Promises
121	async and await
122	The Fetch API
123	HTTP Requests from JavaScript
124	Handling Asynchronous Errors
125	The Event Loop
126	Timers and Scheduling
127	Regular Expressions
128	Useful Browser Web APIs
129	Intersection Observer
130	JavaScript Performance Optimisation
131	Frontend Security Fundamentals
132	Introduction to JavaScript Testing
133	Planning a JavaScript Application
134	Building a Modular JavaScript Project
135	JavaScript Capstone Application

Git and GitHub — Days 136–150

Track work, collaborate professionally and publish projects.

Day	Lesson
136	Version Control and Git Introduction
137	Installing and Configuring Git
138	Creating a Repository and Checking Status
139	Staging and Committing Changes
140	Reading History and Comparing Changes
141	Creating and Switching Branches
142	Merging Branches
143	Resolving Merge Conflicts
144	Working with Remote Repositories
145	Push, Pull and Fetch
146	Cloning and Forking Repositories
147	Using .gitignore Correctly
148	GitHub Issues and Pull Requests
149	Publishing with GitHub Pages
150	Professional Git and GitHub Workflow

Frontend Tools — Days 151–170

Use npm, Vite, Bootstrap, Tailwind, testing tools and professional frontend workflows.

Day	Lesson
151	Node Package Manager for Frontend Projects
152	package.json and Dependency Management
153	Semantic Versioning and Lock Files
154	npm Scripts and Development Commands
155	Vite Project Setup
156	Bundling and JavaScript Modules
157	ESLint and Code Quality
158	Prettier and Consistent Formatting
159	Sass and CSS Preprocessing
160	Bootstrap Grid System
161	Bootstrap Components and Utilities
162	Tailwind CSS Fundamentals
163	Responsive Design with Tailwind CSS
164	Design Systems and Reusable Tokens
165	Frontend Accessibility Testing Tools
166	Cross-Browser Compatibility

Day	Lesson
167	Progressive Web Application Fundamentals
168	Lighthouse and Performance Audits
169	Figma-to-Code Professional Handoff
170	Frontend Tools Capstone Project

React — Days 171–205

Build component-based, accessible and production-ready frontend applications.

Day	Lesson
171	React Introduction and Component Thinking
172	Creating a React Project
173	JSX Syntax
174	Functional Components
175	Props
176	State
177	Handling Events
178	Conditional Rendering
179	Rendering Lists and Using Keys
180	Controlled Forms
181	Lifting State Up
182	Component Composition
183	useState in Depth
184	useEffect and Side Effects
185	useRef
186	useMemo
187	useCallback
188	Context API
189	Creating Custom Hooks
190	React Router Fundamentals
191	Nested and Layout Routes
192	Fetching API Data
193	Loading, Empty and Error States
194	React Form Validation
195	LocalStorage with React
196	Styling React Components
197	React Accessibility
198	React Performance Optimisation
199	Error Boundaries
200	Testing React Components
201	Connecting React to a REST API

Day	Lesson
202	Authentication User Interface
203	Professional React Project Structure
204	Deploying a React Application
205	React Capstone Application

TypeScript — Days 206–220

Add reliable static typing to JavaScript and React projects.

Day	Lesson
206	TypeScript Introduction
207	TypeScript Project Setup
208	Primitive Types and Type Annotations
209	Type Inference
210	Union and Intersection Types
211	Typing Functions
212	Interfaces and Type Aliases
213	Arrays, Tuples and Readonly Data
214	Literal Types and Enums
215	Generics
216	Type Narrowing and Type Guards
217	Utility Types
218	Typing the DOM
219	React with TypeScript
220	Professional TypeScript Configuration and Capstone

Node.js and Express Backend — Days 221–275

Create secure REST APIs, authentication systems and scalable server applications.

Day	Lesson
221	Backend Development Overview
222	Installing Node.js and Understanding the Runtime
223	The Node.js Event Loop
224	CommonJS and ES Modules in Node.js
225	npm, Environment Variables and Configuration
226	File System and Path Modules
227	Creating a Native HTTP Server
228	Express.js Project Setup
229	Express Routing
230	Request and Response Objects
231	Middleware Fundamentals

Day	Lesson
232	REST API Design Principles
233	Creating CRUD Endpoints
234	Route Parameters, Query Strings and Request Bodies
235	HTTP Status Codes and API Responses
236	Request Validation
237	Centralised Error Handling
238	Handling Asynchronous Errors
239	Application Logging
240	Environment-Based Configuration
241	MVC Architecture
242	Service and Repository Layers
243	File Uploads
244	Sending Email from a Backend
245	CORS Configuration
246	Cookies
247	Server-Side Sessions
248	Password Hashing
249	JSON Web Tokens
250	User Authentication
251	Authorisation and Role-Based Access Control
252	OAuth Fundamentals
253	Rate Limiting
254	Security Headers with Helmet
255	CSRF Protection
256	Preventing XSS and Injection Attacks
257	OpenAPI and API Documentation
258	Backend Unit Testing
259	API Integration Testing with Supertest
260	Caching Strategies
261	Queues and Background Jobs
262	Webhooks
263	WebSocket Fundamentals
264	Building Real-Time Features
265	Cloud File Storage Concepts
266	Payment Gateway Integration Concepts
267	Pagination, Filtering and Sorting
268	Backend Search Features
269	API Versioning
270	Microservices Introduction
271	Docker Fundamentals for Backend Projects

Day	Lesson
272	Deploying a Node.js API
273	Monitoring, Health Checks and Logs
274	Backend Performance Optimisation
275	Full-Stack Backend Capstone

Databases — Days 276–300

Design, query, secure and optimise SQL and NoSQL databases.

Day	Lesson
276	Database Fundamentals
277	Relational and NoSQL Databases
278	Data Modelling and Entity Relationships
279	ER Diagrams
280	Tables, Keys and Constraints
281	Database Normalisation
282	Setting Up a SQL Database
283	SELECT Queries
284	Filtering, Sorting and Limiting Results
285	INSERT Statements
286	UPDATE and DELETE Statements
287	Aggregate Functions and GROUP BY
288	SQL JOIN Operations
289	Subqueries and Common Table Expressions
290	Indexes and Query Performance
291	Transactions and ACID Properties
292	Connecting MySQL to Node.js
293	PostgreSQL Fundamentals
294	Object-Relational Mapping
295	MongoDB Fundamentals
296	Mongoose Schemas and Models
297	MongoDB Relationships and Populate
298	Database Security and Backups
299	Migrations and Seed Data
300	Database Performance and Capstone

PHP, MySQL and WordPress — Days 301–325

Develop server-side PHP applications and professional WordPress solutions.

Day	Lesson
301	PHP Introduction and Local Setup

Day	Lesson
302	PHP Syntax, Variables and Data Types
303	PHP Operators and Conditions
304	Loops and Functions in PHP
305	Arrays and String Handling
306	Forms and Superglobals
307	PHP Validation and Sanitisation
308	Sessions and Cookies in PHP
309	File Handling and Uploads
310	Object-Oriented PHP
311	PDO and MySQL Connections
312	PHP CRUD Application
313	PHP Authentication and Security
314	WordPress Architecture
315	WordPress Themes and Template Files
316	The WordPress Loop and Template Hierarchy
317	Actions and Filters
318	Building a WordPress Plugin
319	Custom Post Types and Taxonomies
320	Custom Fields and ACF
321	WordPress REST API
322	WooCommerce Customisation Fundamentals
323	WordPress Security
324	WordPress Performance Optimisation
325	Custom WordPress Capstone Project

Professional Vibe Coding — Days 326–345

Use AI coding assistants responsibly from requirements to deployment and maintenance.

Day	Lesson
326	Professional Vibe Coding Introduction
327	AI-Assisted Development Mindset
328	Choosing AI Coding Tools
329	Writing Clear Project Requirements
330	Defining Scope and User Stories
331	Selecting a Suitable Technology Stack
332	Anatomy of a Professional Coding Prompt
333	Providing Context, Constraints and Existing Files
334	Generating a Safe Project Scaffold
335	Building Features Incrementally with AI
336	Understanding Every Generated Code Block

Day	Lesson
337	Verifying Libraries, APIs and Documentation
338	Debugging AI-Generated Code
339	Refactoring and Improving Generated Code
340	Testing AI-Assisted Applications
341	Security, Privacy and Secret Management
342	Accessibility and Performance Review
343	Git Workflow for Vibe Coding
344	Deployment, Monitoring and Maintenance
345	End-to-End Vibe Coding Capstone

Testing, Deployment and Career — Days 346–365

Test, secure, deploy, document and present professional full-stack projects.

Day	Lesson
346	Professional Testing Strategy
347	Unit Testing Fundamentals
348	Integration and End-to-End Testing
349	Web Application Security Checklist
350	Core Web Vitals and Performance
351	Technical SEO
352	Professional Accessibility Audit
353	Domains, DNS and SSL in Production
354	Hosting and Deployment Strategies
355	Continuous Integration and Continuous Deployment
356	Monitoring, Backups and Maintenance
357	Technical Documentation and README Files
358	Building Portfolio Case Studies
359	CV and Technical Interview Preparation
360	Freelancing Profiles and Proposals
361	Client Discovery and Requirement Gathering
362	Pricing, Contracts and Scope Control
363	Project Management, Handover and Support
364	Open Source Contribution and Personal Branding
365	Final Full-Stack Capstone and Job-Ready Plan