Overview of the 4-Month Roadmap

1. Month 1 (Days 1-30):

- Focus: HTML5, CSS3, Git/GitHub, and Core JavaScript (ES6+)
- Goal: Solid grasp of front-end basics and version control.

2. Month 2 (Days 31–60):

- o Focus: Advanced JavaScript, React basics, React Hooks, and small React projects
- o **Goal:** Comfortably build modern front-end applications with React.

3. Month 3 (Days 61-90):

- o **Focus:** Node.js, Express.js, MongoDB, building RESTful APIs
- o **Goal:** Back-end proficiency with a Node/Express/MongoDB stack.

4. Month 4 (Days 91–120):

- Focus: Integration of front-end and back-end, advanced topics, deployment, and final Capstone Project
- o **Goal:** Become a full-stack developer able to create, deploy, and showcase a complete application.

Month 1: HTML, CSS, Git, and Core JavaScript (Days 1–30)

Week 1: HTML Essentials and Introduction to Git/GitHub (Days 1–7)

Day 1: HTML Fundamentals

- Topics to Learn:
 - 1. Structure of an HTML document (<!DOCTYPE html>, <html>, <head>, <body>)
 - 2. Common tags (, <h1>—<h6>, , <div>)
 - 3. Semantic HTML5 tags (<header>, <nav>, <section>, <article>, <footer>)
- Assignment:
 - o Create a simple HTML page with a header, a main content area, and a footer.
- Resources:
 - MDN HTML Basics

Day 2: HTML Forms and Media

- Topics to Learn:
 - 1. Forms (<form>, <input>, <select>, <textarea>, <button>)
 - 2. Media embedding (, <video>, <audio>)
 - 3. Accessibility basics (ARIA labels, form accessibility)
- Assignment:

- o Build a contact form with name, email, message fields, and a submit button.
- Resources:
 - o MDN: HTML Forms

Day 3: Git/GitHub Setup

- Topics to Learn:
 - 1. Installing Git
 - 2. Basic Git commands (git init, git add, git commit, git status, git log)
 - 3. Creating a GitHub repository and pushing your local repo
- Assignment:
 - o Initialize a Git repo for the mini HTML projects and push to a GitHub repository.
- Resources:
 - Official Git Documentation

Day 4: Git Branching and Collaboration

- Topics to Learn:
 - 1. Branching workflow (git branch, git checkout -b)
 - 2. Merging branches (git merge)
 - 3. Resolving merge conflicts
- Assignment:
 - o Create a new branch for a feature, make changes, merge it back to main (or master).
- Resources:
 - Atlassian Git Tutorial on Branching

Day 5: Semantic HTML Deep Dive

- Topics to Learn:
 - 1. More semantic tags (<figure>, <figcaption>, <aside>)
 - 2. HTML best practices, SEO basics (metadata, <meta> tags)
- Assignment:
 - o Add semantic tags and meta tags to your HTML pages for improved structure and SEO.

Day 6: Mini Project #1 – Simple Multi-Page Website

- Project Outline:
 - 1. Home page + About page + Contact page
 - 2. Navigation bar across pages
 - 3. Integrate simple form on the contact page

- 4. Use Git to track your changes
- Deliverable:
 - o Host the mini-project's code on GitHub.

Day 7: Review & Reinforcement

- Tasks:
 - 1. Review all HTML topics and Git commands from the past 6 days
 - 2. Clean up any code or Git repositories
 - 3. Reflect on your learning; note any gaps or confusion
- Optional: Explore advanced HTML topics like <template>, <canvas> if time permits

Week 2: CSS – Styling the Web (Days 8–14)

Day 8: CSS Basics

- Topics to Learn:
 - 1. Inline vs. Internal vs. External CSS
 - 2. Selectors, Specificity
 - 3. The Box Model (margin, border, padding)
- Assignment:
 - Create a CSS file and link it to your previous HTML mini-project. Experiment with basic styling.
- Resources:
 - MDN: CSS First Steps

Day 9: CSS Positioning and Display

- Topics to Learn:
 - 1. position property (static, relative, absolute, fixed, sticky)
 - 2. display property (block, inline-block, inline, flex, grid)
- Assignment:
 - Practice placing elements in various positions. Understand how z-index works.

Day 10: Flexbox

- Topics to Learn:
 - 1. Container and items (display: flex;, justify-content, align-items, flex-direction)
 - 2. Real-world layouts with flexbox (navbar, card layouts)
- Assignment:
 - o Build a responsive navbar or card layout using Flexbox.
- Resources:
 - Flexbox Froggy Game

Day 11: CSS Grid

- Topics to Learn:
 - 1. Basic grid properties (grid-template-columns, grid-template-rows, gap)
 - 2. Grid vs. Flexbox usage scenarios
- Assignment:
 - Create a two-dimensional layout (like a gallery) using CSS Grid.
- Resources:
 - Grid Garden

Day 12: Responsive Design & Media Queries

- Topics to Learn:
 - 1. Mobile-first design strategy
 - 2. @media queries (breakpoints for different screen sizes)
 - 3. Responsive units (%, em, rem, vw, vh)
- Assignment:
 - o Make your previous layouts responsive for mobile and tablet devices.

Day 13: CSS Best Practices & Animations

- Topics to Learn:
 - 1. BEM methodology (Block, Element, Modifier) for structuring CSS
 - 2. Basic CSS animations (@keyframes, transition, transform)
- Assignment:
 - o Add a simple hover animation or transition effect to a button or image.

Day 14: Mini Project #2 – A Responsive Portfolio Page

- Project Outline:
 - 1. Single-page portfolio with sections: "Home", "About", "Projects", "Contact"
 - 2. Use Flexbox or Grid for layout
 - 3. Ensure full responsiveness across devices
 - 4. Animate some elements (e.g., fade-in sections)
- Deliverable:
 - o Deploy the page on Netlify or GitHub Pages

Week 3: JavaScript Fundamentals (Days 15–21)

Day 15: JavaScript Basics

- Topics to Learn:
 - 1. Variables (let, const, var)
 - 2. Data types (string, number, boolean, null, undefined, object)
 - 3. Operators (+, -, *, /, %, **, etc.)
- Assignment:
 - o Write a script that performs basic arithmetic operations and logs outputs to console.
- Resources:
 - MDN: JavaScript Basics

Day 16: Control Flow

- Topics to Learn:
 - 1. Conditionals (if/else, switch)
 - 2. Loops (for, while, do...while)
- Assignment:
 - Create a script to process user input in the console using conditionals and loops.

Day 17: Functions and Scope

- Topics to Learn:
 - 1. Function declarations vs. expressions, arrow functions
 - 2. Global scope vs. local scope
 - 3. Parameter defaults
- Assignment:
 - Write a function library that contains reusable utility functions (e.g., random number generator).

Day 18: Arrays and Objects

- Topics to Learn:
 - 1. Array methods (push, pop, slice, splice, map, filter, reduce)
 - 2. Object literal syntax, nested objects, object methods
- Assignment:
 - o Implement an address book array of objects. Let users add, remove, and search contacts.

Day 19: DOM Manipulation

- Topics to Learn:
 - 1. Selecting elements (document.querySelector(), document.getElementById())

- 2. Modifying styles and content
- 3. Event handling (click, input, change)

Assignment:

- Create a simple to-do list or counter app that manipulates the DOM based on user interactions.
- Resources:
 - o MDN: DOM Introduction

Day 20: JSON and LocalStorage

- Topics to Learn:
 - 1. JSON syntax and usage
 - 2. JSON.stringify(), JSON.parse()
 - 3. Storing data in localStorage or sessionStorage
- Assignment:
 - o Enhance the to-do list by persisting tasks in localStorage.

Day 21: Mini Project #3 – Interactive Web App

- Project Outline:
 - 1. A small "Quiz App" or "Recipe Manager" or "Weather Fetcher" (using a free weather API)
 - 2. Use DOM manipulation extensively
 - 3. Store user data in LocalStorage
- Deliverable:
 - o Host the project code on GitHub and share the live link

Week 4: Advanced JS Concepts and Consolidation (Days 22-30)

Day 22: ES6+ Features

- Topics to Learn:
 - 1. Destructuring, spread operator, rest parameters
 - 2. Template literals, shorthand property names
- Assignment:
 - o Refactor a previous project using these modern JS features.
- Resources:
 - o MDN: ES6 In Depth

Day 23: Asynchronous JavaScript

- Topics to Learn:
 - 1. Callbacks
 - 2. Promises (.then(), .catch())
 - 3. async/await syntax
- Assignment:
 - Build a simple app that fetches data from a public API using fetch() or axios.

Day 24: Error Handling & Debugging

- Topics to Learn:
 - 1. try...catch blocks
 - 2. DevTools debugging (breakpoints, watch variables)
- Assignment:
 - Debug a piece of broken code and properly handle errors.

Days 25-26: Mini Project #4 - API-Driven Web App

- Project Outline:
 - 1. Example: "Movie Search App" that hits an external movie API
 - 2. Implement loading states, error states
 - 3. Use async/await or Promises for requests
- Deliverable:
 - Deploy or host the project (Netlify/GitHub Pages).

Day 27: Git/GitHub Deep Dive

- Topics to Learn:
 - 1. Pull requests, code reviews

- 2. GitHub Issues & Projects for task management
- 3. Git tags and releases
- Assignment:
 - o Create a feature branch, open a Pull Request, review and merge it.

Day 28: Refactoring & Code Organization

- Topics to Learn:
 - 1. Module patterns (ES Modules, CommonJS basics)
 - 2. File/folder structure for web apps
- Assignment:
 - o Split your project code into multiple JS modules.

Days 29–30: Final Review of Front-End Foundations

- Tasks:
 - 1. Revisit all HTML/CSS/JS fundamentals
 - 2. Clean up portfolio projects and push them to GitHub
 - 3. Prepare to dive into React next week

Month 2: React.js & Advanced Front-End (Days 31-60)

Week 5: React Basics (Days 31-37)

Day 31: Introduction to React

- Topics to Learn:
 - 1. Setting up a React app using Create React App (CRA) or Vite
 - 2. React folder structure
 - 3. JSX syntax
- Assignment:
 - o Create a basic React app, display "Hello World" with a functional component.
- Resources:
 - React Official Docs

Day 32: Components & Props

- Topics to Learn:
 - 1. Functional components vs. Class components (focus on functional for modern React)
 - 2. Props usage, prop types
- Assignment:
 - o Build a small "Profile Card" component that takes in props (name, picture, description).

Day 33: State and Lifecycle

- Topics to Learn:
 - 1. Using useState Hook for state management
 - 2. Basic lifecycle with hooks (e.g., useEffect)
- Assignment:
 - Enhance the "Profile Card" with a "Follow" button that toggles follow state.

Day 34: Event Handling in React

- Topics to Learn:
 - 1. onClick, onChange, onSubmit in React
 - 2. Synthetic event system
- Assignment:
 - o Create a simple form in React that updates state on user input.

Day 35: Conditional Rendering & Lists

- Topics to Learn:
 - 1. Rendering lists with .map()

- 2. Handling unique keys (key prop)
- 3. Conditional rendering (&&, ?:)
- Assignment:
 - Display a list of items (e.g., tasks or product data). Conditionally show a message if the list is empty.

Day 36: Basic React Router

- Topics to Learn:
 - 1. React Router setup
 - 2. Creating multiple routes (<BrowserRouter>, <Routes>, <Route>)
 - 3. Navigation with <Link> or useNavigate
- Assignment:
 - o Convert your multi-page portfolio to a single-page React app using React Router.
- Resources:
 - React Router Docs

Day 37: Mini Project #5 - Simple React App

- Project Outline:
 - 1. A small "Product Catalog" or "Task Manager" with at least two routes
 - 2. Use state to add/remove/update items
 - 3. Show mastery of basic React, props, state, router
- Deliverable:
 - o Deploy the React app on Netlify or Vercel

Week 6: Deeper into React (Days 38-44)

Day 38: Advanced Hooks

- Topics to Learn:
 - 1. useEffect for side effects (API calls, subscriptions)
 - 2. useContext for global state
 - 3. useReducer for complex state logic
- Assignment:
 - Refactor your mini project to use useContext for theme or user auth state.

Day 39: Forms and Form Libraries

- Topics to Learn:
 - 1. Controlled vs. uncontrolled components
 - 2. Libraries: Formik or React Hook Form
- Assignment:
 - o Build a "Sign Up" form with validation using Formik or React Hook Form.

Day 40: Styling in React

- Topics to Learn:
 - 1. CSS Modules, Styled Components, or Tailwind CSS
 - 2. Pros and cons of various styling approaches
- Assignment:
 - Add a consistent UI library or styling approach to your mini projects.

Day 41: State Management (Redux or Context + Reducer)

- Topics to Learn:
 - 1. Redux basics (store, actions, reducers) OR advanced usage of React Context + Reducer pattern
- Assignment:
 - o Implement a global store for your existing React project (e.g., a cart for an e-commerce site).

Days 42-43: Mini Project #6 - React CRUD App

- Project Outline:
 - 1. A "CRUD" (Create, Read, Update, Delete) app, such as a "Contact Manager" or "Blog Posts"
 - 2. Use advanced hooks, React Router, form validations
 - 3. Consider using Redux or Context for state
- Deliverable:
 - Hosted project link plus GitHub repo

Day 44: Review & React Best Practices

- Tasks:
 - 1. Optimize components (memoization, pure components)
 - 2. Folder structure best practices (e.g., feature-based)
 - 3. Prepare to transition into the Node.js ecosystem
- Resource:
 - o React Performance Optimization

Week 7: Moving to the Back-End – Node.js Fundamentals (Days 45–51)

(Adjusting day numbers to align with the 120 total. You have 60 days allocated for front-end. We are at Day 44, so continuing...)

Day 45: Node.js Introduction

- Topics to Learn:
 - 1. Node.js architecture, V8 engine
 - 2. Setting up Node, running a simple .js file
 - 3. npm vs. yarn
- Assignment:
 - o Create a simple script in Node that reads a file and logs its content to the console.
- Resources:
 - Node.js Official Docs

Day 46: Basic Node Modules and NPM

- Topics to Learn:
 - 1. Importing and exporting modules (require, module.exports, or ES Modules)
 - 2. Common built-in modules (fs, path)
 - 3. Creating your own modules
- Assignment:
 - Build a small utility module and import it into a main file.

Day 47: Express.js Basics

- Topics to Learn:
 - 1. Setting up an Express server
 - 2. Routing (GET, POST, etc.)
 - 3. Middleware basics
- Assignment:
 - Create a simple Express server with at least two routes.

Day 48: Templating Engines & Static Files

- Topics to Learn:
 - 1. Serving static files (images, CSS) with Express
 - 2. Using templating engines (EJS, Pug, or Handlebars) although in a React-based stack, you might not need these often
- Assignment:
 - Build a basic server-rendered web page using EJS or Handlebars.

Days 49-50: Express Router & MVC Structure

- Topics to Learn:
 - 1. Splitting routes into separate files
 - 2. Organizing code into MVC (Model, View, Controller) patterns
- Assignment:
 - o Convert your simple Express app into a more modular structure with separate routes.

Day 51: Mini Project #7 – RESTful API

- Project Outline:
 - 1. Build a small CRUD API for a resource (e.g., "Books" or "Movies")
 - 2. Use Postman or a similar tool to test your endpoints
 - 3. Deploy your simple API on Railway or Heroku (if free tier is available)
- Deliverable:
 - o Live API endpoint and GitHub repo

Month 3: Full Back-End (Node, Express, MongoDB) & Integration (Days 61–90)

Week 8: MongoDB & Mongoose (Days 61–67)

Day 61: MongoDB Introduction

- Topics to Learn:
 - 1. NoSQL concepts, document-based databases
 - 2. Installing and running MongoDB locally or using MongoDB Atlas
- Assignment:
 - Create a test database and insert a few documents.
- Resources:
 - MongoDB University Free Courses

Day 62: Mongoose ODM

- Topics to Learn:
 - 1. Connecting to MongoDB via Mongoose
 - 2. Defining schemas and models
- Assignment:
 - o Create a "User" model with Mongoose and perform basic CRUD operations.

Day 63: Advanced Queries

- Topics to Learn:
 - 1. Filtering, projections
 - 2. Pagination and sorting
- Assignment:
 - o Build a route in Express that fetches paginated data from MongoDB.

Day 64: Data Validation and Error Handling

- Topics to Learn:
 - 1. Schema validation with Mongoose
 - 2. Handling errors gracefully in Express
- Assignment:
 - o Add validation rules to your "User" or "Book" model, handle invalid data.

Day 65: Authentication (JWT Basics)

- Topics to Learn:
 - 1. JSON Web Tokens (JWT)
 - 2. Generating and verifying tokens

- 3. Protected routes in Express
- Assignment:
 - o Implement a login and signup route that returns a token upon successful authentication.

Days 66-67: Mini Project #8 - Secure REST API with MongoDB

- Project Outline:
 - 1. Build an "Auth-Enabled" CRUD API for a resource of your choice
 - 2. Users can only read/write their own data (middleware for authentication)
 - 3. Proper error handling and validation
- Deliverable:
 - o Deployed API with docs, GitHub repo

Week 9: Integrating Front-End & Back-End (Days 68-74)

Day 68: Connecting React Front-End with Express Back-End

- Topics to Learn:
 - 1. RESTful API calls from React (using fetch or axios)
 - 2. CORS issues and how to fix them
- Assignment:
 - Build a simple React front-end that consumes your secure REST API from the previous miniproject.

Day 69: Authentication on the Client

- Topics to Learn:
 - 1. Storing JWT in localStorage/cookies
 - 2. Auth context or Redux-based auth flow
- Assignment:
 - Protect certain pages in React so only authenticated users can access them.

Day 70: Handling File Uploads

- Topics to Learn:
 - 1. Multer or similar middleware in Express
 - 2. Handling file uploads in React forms
- Assignment:
 - Create an endpoint to upload profile pictures and display them in a React app.

Days 71-72: Mini Project #9 - Full-Stack Application

- Project Outline:
 - 1. A "Full-Stack Dashboard" or "Task Manager" with user authentication
 - 2. CRUD functionality on tasks or data, stored in MongoDB
 - 3. React front-end with protected routes
- Deliverable:
 - Deployed front-end (Netlify/Vercel) and back-end (Railway/Heroku)

Day 73: GitHub Project Management

- Topics to Learn:
 - 1. Creating Issues, linking PRs to Issues
 - 2. Using GitHub Projects or Kanban boards
- Assignment:
 - o Manage your mini-project tasks using GitHub's project board.

Day 74: Code Review & Optimization

- Topics to Learn:
 - 1. Minimizing bundle size (code splitting in React)
 - 2. Using environment variables for sensitive data
- Assignment:
 - o Implement environment variables for your API keys or database URIs.

Week 10: Advanced Back-End & Third-Party Integrations (Days 75–81)

Day 75: Advanced Express Concepts

- Topics to Learn:
 - 1. Rate limiting (e.g., express-rate-limit)
 - 2. Security best practices (Helmet, sanitize inputs)
- Assignment:
 - Add security measures to your existing Express app.

Day 76: Working with Third-Party APIs

- Topics to Learn:
 - 1. OAuth flows (basic understanding)
 - 2. Integrating with a popular API (e.g., Twitter, Stripe, or PayPal)
- Assignment:
 - Create a route that fetches data from a third-party API or processes payments with Stripe test mode.

Day 77: Logging and Monitoring

- Topics to Learn:
 - 1. Using morgan for request logging
 - 2. Error logging with services like Sentry (optional)
- Assignment:
 - Enhance your app to log requests and errors.

Days 78-79: Mini Project #10 - Third-Party Integration

- Project Outline:
 - 1. Extend your previous full-stack app to include a third-party API feature (e.g., payment, social login)
 - 2. Ensure it's secure, handle errors properly
- Deliverable:
 - Deployed updated full-stack app

Day 80: Testing Basics

- Topics to Learn:
 - 1. Unit testing with Jest or Mocha/Chai
 - 2. Integration tests for Express routes
- Assignment:
 - o Write tests for at least one model and one route in your API.

Day 81: Review & Prep for Advanced Topics

- Tasks:
 - 1. Revisit your full-stack mini projects
 - 2. Document any existing gaps (testing, security, performance)
- Resource:
 - Jest Documentation

Month 4: Final Polish, Advanced Topics, and Capstone Project (Days 82–120)

Week 11: Advanced Deployment & Production Readiness (Days 82–88)

Day 82: Deployment Options

- Topics to Learn:
 - 1. Comparing hosting platforms (AWS, DigitalOcean, Render, Vercel)
 - 2. Docker basics (optional deep dive)
- Assignment:
 - Deploy a test app using a new service (e.g., Render or AWS EC2).

Day 83: CI/CD Pipelines

- Topics to Learn:
 - 1. GitHub Actions or GitLab Cl
 - 2. Automating tests and deployments
- Assignment:
 - Configure a simple pipeline that runs your tests on every push.

Days 84-85: Performance Optimization

- Topics to Learn:
 - 1. Caching strategies (client-side, server-side)
 - 2. Minimizing network requests, code splitting in React
- Assignment:
 - Implement lazy-loading for a large React component or caching for an API route.

Days 86-87: Final Mini Project #11 - Production-Ready

- Project Outline:
 - 1. Pick one of your previous mini-projects and fully optimize it for production
 - 2. Add test coverage, CI/CD, environment variables, security, logging, monitoring
- Deliverable:
 - o A link to your final production-grade mini-project

Day 88: Portfolio & Resume Review

- Tasks:
 - 1. Update your portfolio site with all mini projects
 - 2. Polish your GitHub profile (pin top repositories, add relevant READMEs)
 - 3. Draft or update your resume to reflect new skills

Weeks 12-13 (Days 89-102): Final Capstone Preparation and Kickoff

Day 89: Capstone Project Planning

- Tasks:
 - 1. Brainstorm an idea (e-commerce platform, social media app, job board, etc.)
 - 2. Define user stories, features, and tech stack
 - 3. Create a GitHub repo and project board
- Assignment:
 - Write a detailed specification or plan for your capstone.

Days 90-91: Designing the Architecture

- Tasks:
 - 1. Sketch database schema (MongoDB models)
 - 2. Outline API endpoints
 - 3. Plan the React front-end structure (components, pages)
- Assignment:
 - o Finalize your project scope to fit the remaining days.

Days 92-94: Setting Up the Back-End

- Tasks:
 - 1. Initialize Node/Express server with your required modules
 - 2. Implement basic user authentication (JWT)
 - 3. Establish MongoDB connection and create initial models
- Deliverable:
 - Basic functional API with user login/signup

Days 95-97: Front-End Scaffolding

- Tasks:
 - 1. Create a React app with routes for login, signup, main dashboard
 - 2. Integrate authentication with your back-end
 - 3. Set up global state management if needed (Context/Redux)

Days 98-100: Core Features Implementation

- Tasks:
 - 1. Implement main CRUD features (e.g., posts, products, tasks)
 - 2. Add file uploads if needed (images for profiles, product pictures)
 - 3. Make sure to handle errors gracefully

Day 101–102: Basic Testing and Refinement

- Tasks:
 - 1. Write at least some unit/integration tests
 - 2. Conduct manual QA
 - 3. Prepare for final deployment

Final 18 Days (Days 103-120): Capstone Completion & Polish

Days 103-105: Advanced/Optional Features

- Possible Features:
 - 1. Payment integration (Stripe), or a third-party API (Google Maps, etc.)
 - 2. Real-time functionality with Socket.io (if relevant)
 - 3. Email notifications (Nodemailer)

Days 106-110: UI/UX Polish & Performance

- Tasks:
 - 1. Improve front-end design (responsive, minimal layout)
 - 2. Add loading states, skeletons, or spinners
 - 3. Optimize images and scripts

Days 111–112: Security & Deployment

- Tasks:
 - 1. Double-check JWT security, password hashing (bcrypt)
 - 2. Deploy your final project (front-end + back-end)
 - 3. Implement environment variables for production

Days 113-115: Thorough Testing & Final Bug Fixes

- Tasks:
 - 1. Beta-test your capstone with friends/peers
 - 2. Fix reported bugs, improve error handling
 - 3. Ensure performance is acceptable

Days 116-117: Documentation & ReadMe

- Tasks:
 - 1. Write a clear README with setup instructions and usage guide
 - 2. Document your API endpoints (Swagger or a simple markdown)

Days 118-119: Final Presentation and Portfolio Update

- Tasks:
 - 1. Record a short demo video or create a slide deck for your capstone
 - 2. Add the project to your portfolio website
 - 3. Update your LinkedIn with your new project

Day 120: Completion & Reflection

- Tasks:
 - 1. Reflect on what you've learned: front-end, back-end, deployment, etc.
 - 2. Identify areas for continued growth (DevOps, advanced testing, design patterns)
 - 3. Celebrate your achievement—You are now a full-stack developer!

Additional Tips and Resources

1. Time Management:

 Aim for 1–2 hours a day. If you have more time on weekends, you can catch up or deepen your knowledge.

2. Project-Based Learning:

 Always be building. Even if you feel you "get" a concept, a small project cements your understanding.

3. Community & Peer Learning:

 Consider joining a Discord group or forum for web dev learners. Teaching or discussing topics with others can accelerate your understanding.

4. Favorite References:

- MDN Web Docs for HTML, CSS, JavaScript
- React Documentation for React fundamentals and advanced concepts
- o Node.js Docs & Express Docs for back-end references
- MongoDB Docs & Mongoose for database help

5. Continuous Deployment & Version Control:

- Keep pushing every project to GitHub.
- Use GitHub Issues and Projects to stay organized, especially for the final Capstone.

6. Focus on Fundamentals:

- Make sure you deeply understand each concept—don't just copy/paste.
- o The "why" and "how" of each technology is what will make you stand out.

Final Note

By following this **strict**, **structured 120-day roadmap**, you'll progressively build mastery in HTML, CSS, JavaScript, React, Node.js, Express, MongoDB, and essential deployment strategies. You'll also produce a **portfolio** of projects along the way—mini-projects to apply weekly/bi-weekly lessons, and a **Capstone Project** that ties it all together. If you remain consistent and disciplined, by **Day 120**, you will be well-prepared to take on full-stack development responsibilities and confidently showcase your skills to potential employers or clients. **Good luck and happy coding!**