

Web Development

1. OVERVIEW

Web Development involves building and maintaining web pages and web applications.

Web Dev has been around since the late 1900s. Developers of this domain can be classified as:

1. Frontend Developers
2. Backend Developers
3. Full Stack Developers

The **Frontend** of a web application is the client side of the website i.e. the part the user sees and interacts with. In the present day, every web application needs to be responsive.

(Should be functional and presentable on all kinds of devices)



The **Backend** of a web application deals with the server side of the website i.e. the code/logic that handles the 'behind the scene' tasks such as user authentication, user input, database management , etc.

Full Stack Developers are the developers capable of handling frontend, backend as well as middleware technologies.

(Simple example of middleware tech: APIs)

2. REFERENCES / LEARNING RESOURCES

Frontend

HTML :

1. [HTML complete course in Hindi](#)
2. [HTML & CSS Full Course - Beginner to Pro](#)
3. [HTML & CSS Full Course for free](#)

CSS :

1. [CSS Crash Course For Beginners | Complete CSS Tutorial with Project](#)
2. [Tailwind CSS v4 Full Course 2025 | Master Tailwind in One Hour](#)
3. <https://www.creative-tim.com/twcomponents/cheatsheet>

JAVASCRIPT :

1. <https://m.youtube.com/playlist?list=PLinedj3B30sDFRdgPYvjnBs2JsDdHPIMv>
2. <https://youtube.com/playlist?list=PLu71SKxNbfoBuX3f4EOACle2y-tRC5Q37&si=6lv7CXlrUKBeCcTL>
3.  JavaScript Full Course for free 

REACT [Framework for frontend] :

1. <https://youtube.com/playlist?list=PLinedj3B30sCHqHtgbjg1ISYgWebm1dyI&si=rxO2AK0Zqfkxb-Ba>
2.  React Full Course for free 

Backend

NODE & Express JS :

1. <https://www.youtube.com/playlist?list=PL78RhpUUKSweSOOwfE9x6l5jTjn5LbY3>
2. https://www.youtube.com/watch?v=T55Kb8rrH1g&list=PLbtI3_MArDOkXRLxdMt1NOMtCS-84ibHH

3. AI TOOLS FOR WEB DEVELOPMENT

1. GitHub copilot
2. Lovable ai
3. Claude code
4. Cursor

Drawbacks of using AI tools

- Security & privacy risks - May expose data or create unsafe code. (Found in studies on AI code tools.)
- Not fully production-ready - Needs manual testing and optimization.
- Less hands-on learning - Overuse can weaken real coding skills.
- Limited customization - Struggles with complex logic or unique features. (Reported by Lovable AI and Replit users.)
- Messy or unoptimized code - AI output often works but isn't clean or efficient. (Seen with GitHub Copilot, Cursor, etc.)

4. DOCUMENTATION

- **MDN Mozilla Docs** <https://developer.mozilla.org/en-US/>
- **W3 schools** <https://www.w3schools.com/js/>

- GeeksforGeeks react <https://www.geeksforgeeks.org/reactjs/react/>
- Tailwind Docs- <https://tailwindcss.com/docs>

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