

Front-end Introduction

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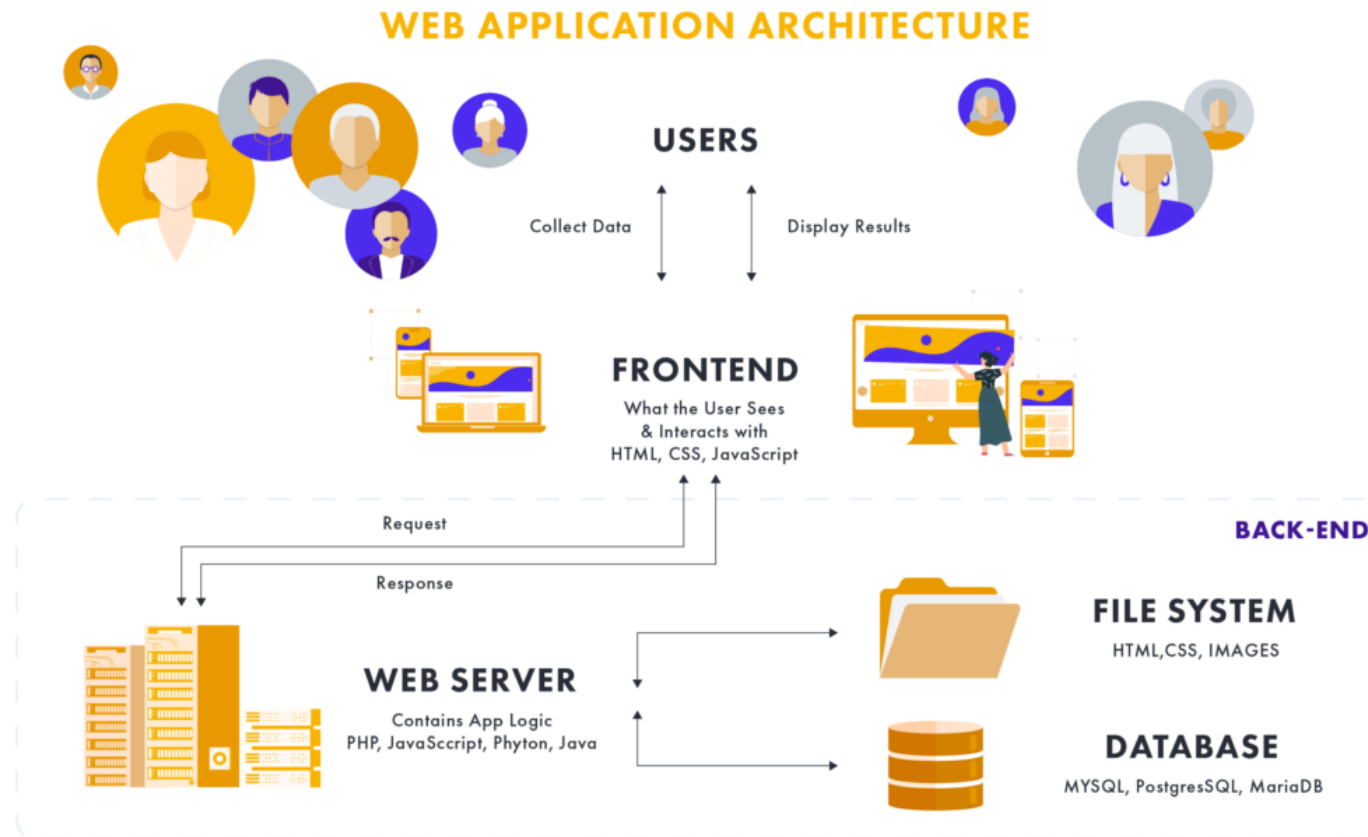
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1) What is front-end developer?

- A frontend developer is a professional who uses HTML, CSS, and JavaScript to design and build the visual and interactive elements of websites and applications.
- Role of a Frontend Developer:
 - Creating the user interface of a website to ensure it looks good and is easy to use, with great focus on design principles and user experience.
 - Working closely with designers, back-end developers, and project managers to make sure the final product meets the client's needs and provides the best possible experience for the end-users.

2) Web application architecture



3) Case study (1/3)

- Online Medical Appointment Booking Website
- Goal: Develop a web application that allows patients to:
 - Create accounts
 - View doctors' available time slots
 - Book appointments
 - Receive confirmation emails

3) Case study (2/3)

- Business Analyst (BA)
 - Gather business requirements from the clinic
 - Convert them into technical documentation and user stories
 - Act as the communication bridge between stakeholders and developers
- UI/UX Designer
 - Design wireframes and mockups
 - Ensure an intuitive and user-friendly interface

3) Case study (3/3)

- Frontend Developer
 - Implement the user interface
 - Connect to backend APIs
- Backend Developer
 - Develop APIs and business logic
 - Handle data storage and email services

4) Languages for Frontend Development

- **HTML:** The markup language used to create the skeleton of the page. All the information you want to show on a webpage will be laid out through HTML.
- **CSS:** The Cascading Style Sheet language allows you to improve the visuals of your webpage.
- **JavaScript:** This is a programming language for frontend development, and it allows you to add dynamism to your websites/web apps.



5) Skills for Frontend Developer (1/2)

- 1) Understanding the core technologies: HTML, CSS & JavaScript.
- 2) Understanding accessibility: Knowing how it can affect your users' experience.
- 3) Version control systems: Be familiar with tools like Git.
- 4) Responsive design: Implementing designs that adapt to different devices and screen sizes
- 5) User experience (UX): Understanding the basics of UX principles.
- 6) SEO: Knowing how search engine optimization works and how you can leverage it in your code.

5) Skills for Frontend Developer

- 7) RESTful APIs: Understanding the basics of RESTful APIs and how to consume them.
- 8) Testing and debugging: Implementing testing practices and debugging effectively.
- 9) Dev tools: Master the browser's developer tools for inspecting, debugging, and optimizing code.
- 10) Frameworks: Having a go-to frontend framework (like React or Vue) and understanding others at a high level.
- 11) Web performance: Understanding web performance optimizations and core web vitals.
- 12) TypeScript: Understanding how TypeScript works and when to use it.