

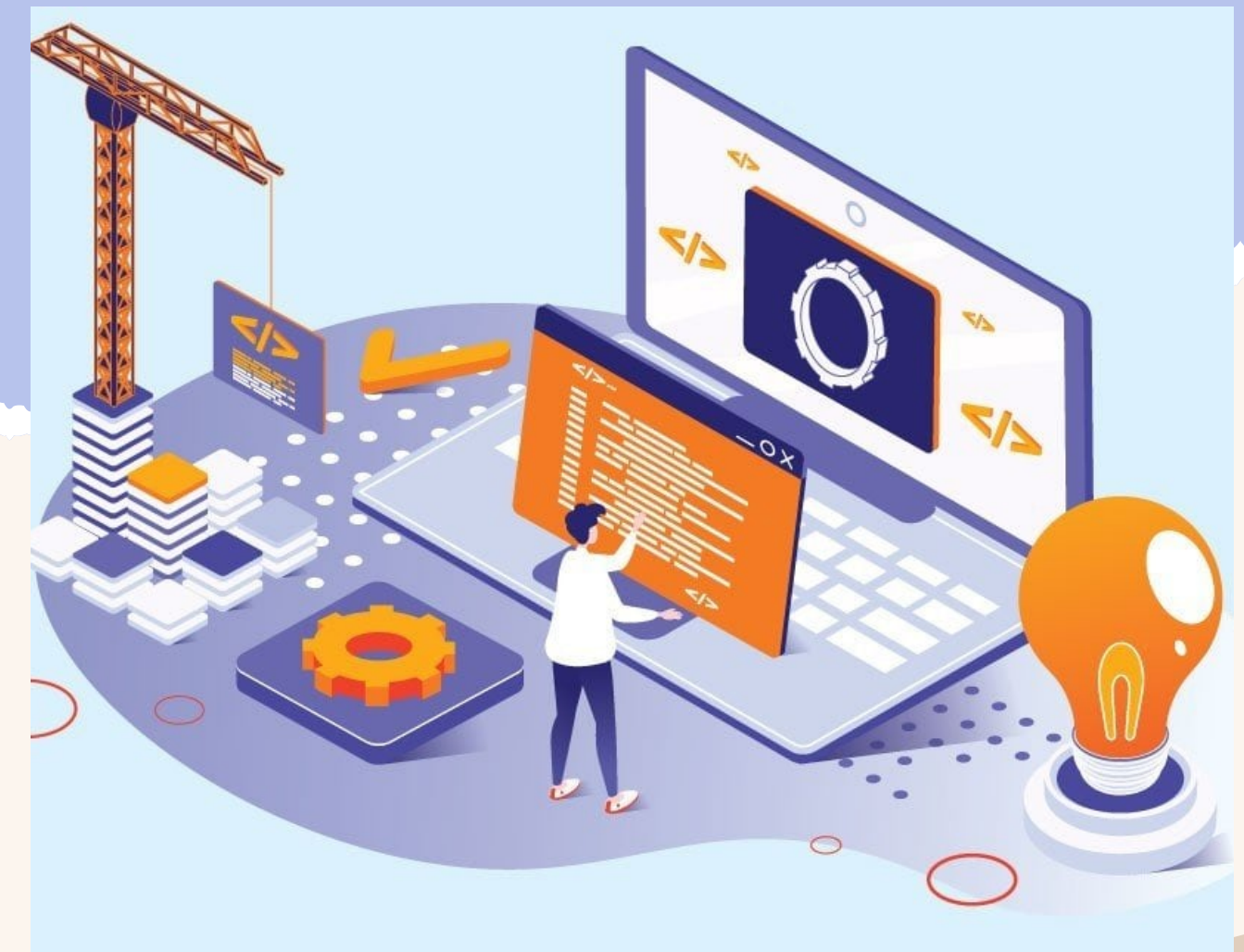


Fundamentals of Web Programming

What are the fundamentals of web development?

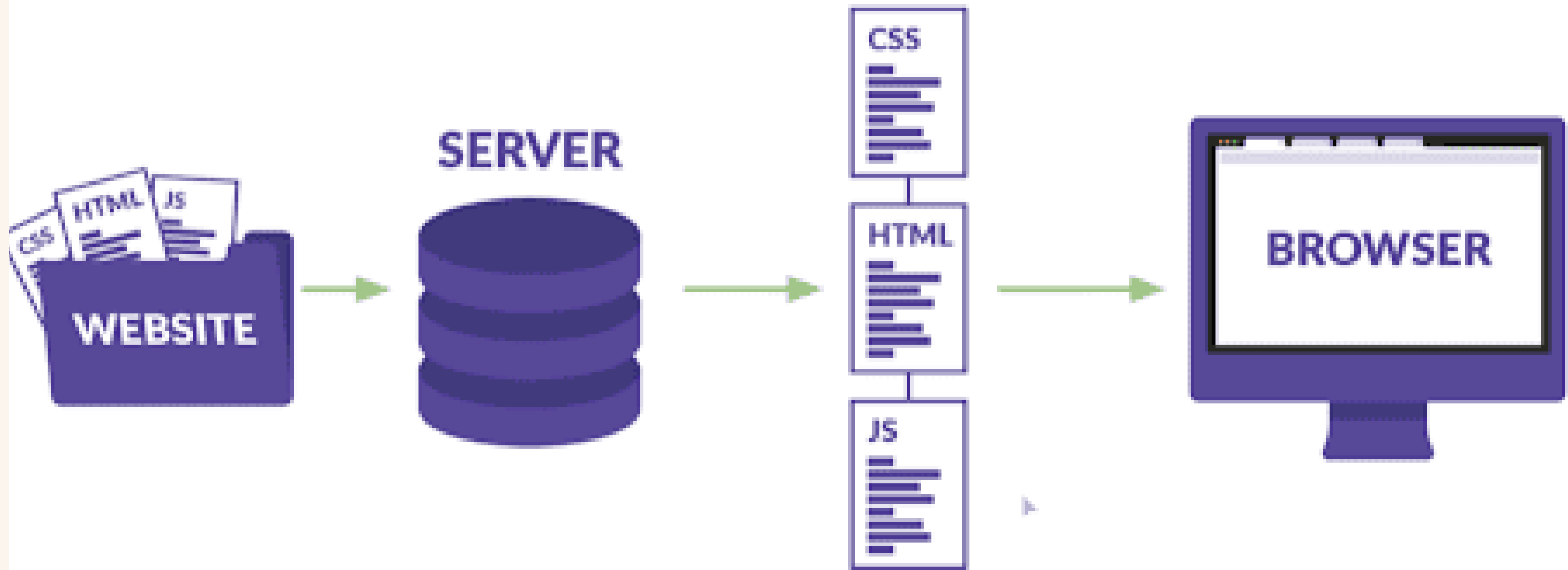
Web development fundamentals include a range of components, primarily front-end development, back-end development, database management, and HTTP/HTTPS protocols.

Front-end includes HTML technology for content structure, CSS for styling and design and JavaScript for interactivity. On the back end, server-side languages (e.g. PHP, javascript...) handle logic and data storage. Databases (e.g., MySQL, MongoDB) store information, and HTTP/HTTPS protocols facilitate communication.



How does the web works?

The process is quite simple. To begin with, you enter a domain name or a website address in the search bar. First and foremost, the browser passes the request to the Server which it acts as an address directory. It converts the human-readable address to a machine-readable address. Once we've completed these steps, it passes the request to the main server or the server where your site is stored then the server provides the response to the browser and now you are able to access the website. The whole process takes hardly 1 or 2 seconds.



What do you need to be a Developer?

Technical Skills:

****Programming Languages:** Proficiency in at least one language (e.g., Python, JavaScript).

Algorithms and Data Structures: Knowledge to solve problems efficiently.

****Database Management:** Familiarity with SQL, NoSQL, and integration into applications.

****Version Control Systems:** Experience with Git for code management.

Web Technologies:

****Essentials:** HTML, CSS, and JavaScript.

****Frameworks:** Knowledge of front-end and back-end frameworks.

Problem-Solving Skills:

Ability to analyze and solve complex problems, essential for debugging and optimizing code.

Soft Skills:

Communication: Effective communication within teams.

Time Management: Handling multiple tasks and meeting deadlines.

Continuous Learning: Keeping up with industry trends and new technologies.

Education and Training:

A formal degree or self-learning through online courses and coding challenges.

Experience and Portfolio:

Building projects to demonstrate practical skills. Internships, freelance work, or open-source contributions to gain experience.

Adaptability and Creativity:

Adapting to new technologies and creatively solving problems distinguishes successful developers.

Why did you choose to learn web development?

Well, the most common question people ask me since I started studying at university as an IoT student with a science experimental baccalaureate :) is why I chose this domain. I chose IoT and particularly web development because it allows me to unleash my creative potential. Since learning Python in high school, I've been passionate about solving complex problems with innovative solutions. Another reason web development is such an excellent career choice is the opportunity it provides to work in teams and be part of a vibrant community of developers—something I personally enjoy. Most importantly, the high demand for professional websites ensures that a career in web development is 'future-proof,' offering promising career prospects and competitive salaries well into the future.

