Section 1: General Knowledge

Web Development Basics

What is web development, and why is it essential in the context of the Internet?

Web development is the set of practices that consist of creating web solutions, i.e. websites and web applications intended to be hosted via an intranet or the Internet. This is generally done by developers using code, but today there are no-code practices and even artificial intelligence that make it possible to do so. In the context of the Internet, it is becoming increasingly crucial for individuals, companies and even States because it allows them to have global exposure through the Internet, to simplify administrative procedures, to be more competitive in a constantly changing market, etc.

HTML Knowledge

Have you heard of HTML? If so, what does HTML mean and what is its main purpose in web development?

Yes. I have already heard of it. HTML stands for HyperText Markup Language. It is the basic language of web development, used to structure and organize the content of a web page. It defines the hierarchy of elements (headings, paragraphs, images, links, tables, forms, etc.) and allows browsers to interpret them correctly. It is not strictly speaking a programming language but a markup language. Its main purpose is to structure the content of web pages so that they can be displayed and understood by browsers. HTML does not directly provide styling or interactivity, but it works in addition to CSS and JavaScript.

Section 2: Familiarity with CSS

Understanding CSS

Are you familiar with CSS? If yes, briefly explain what CSS is used for in web development.

Yes, I am familiar with CSS. CSS stands for Cascading Style Sheets. It is used in web development to style and format web pages created in HTML, controlling the appearance of elements (colors, fonts, margins, animations, size, etc.). Thanks to CSS, web pages are more attractive, responsive and ergonomic.

CSS can be integrated in three ways:

1. Inline CSS → Directly in an HTML tag with the style attribute.

2. Embedded CSS → In a <style> tag within the HTML file.

3. External CSS → In a separate .css file, recommended for better code organization.

Section 3: JavaScript and its importance

Introduction to JavaScript

Yes, I have heard of JavaScript. JavaScript (not to be confused with Java) is a versatile and interpreted programming language. It is essential to make web pages interactive and dynamic, in addition to HTML (structure) and CSS (style).

With JavaScript, it is possible to:

1. Handle user events (clicks, keyboard inputs, mouse movements).

2. Manipulate the DOM (add, modify or delete HTML elements in real time).

3. Create animations and visual effects (with CSS).

4. Communicate with servers via API requests (fetch).

5. Manage data storage (cookies, localStorage, server-side databases).

6. Detect and handle errors to improve the robustness of applications.

JavaScript is crucial because it allows you to transform a static page into an interactive web application, and it is used on both the front-end (browser) and the back-end.

Section 4: Introduction to React and Node.js

Knowledge of React and Node.js

Are you familiar with React and Node.js? If yes, please provide a brief description of what React and Node.js are typically used for in web development.

Yes, I am familiar with React and Node.js but have never used them.

React is a JavaScript library developed by Facebook, used to build dynamic and responsive user interfaces. It is based on a reusable component system and uses a virtual DOM to optimize interface updates. React is mainly used to develop single-page applications (SPAs) and interactive user interfaces. It allows the display to be updated without reloading the entire page, which is a plus.

Node.js is a JavaScript runtime environment, based on Chrome's V8 engine. It allows JavaScript to be executed on the server side, making it easier to develop high-performance and scalable web applications. Node.js is often used to build REST APIs, real-time applications (like chat or online games), and lightweight and fast back-end services.

Section 5: Bonus Questions

Learning Intentions

Why do you want to learn web development, and what do you hope to achieve by acquiring skills in HTML, CSS, JavaScript, React, and Node.js?

I want to learn web development because I enjoy digitizing innovative solutions. I strongly believe that