**COURSE- FULL STACK WEB DEVELOPMENT**

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**1.What is internet? Explain in your own words?**

**Ans:** The internet is a vast and interconnected network of computers and devices worldwide. It allows these devices to communicate with each other and share information seamlessly. Imagine it as an enormous virtual "web" that links computers, servers, smartphones, tablets, and other gadgets together.

When you access the internet, you are essentially joining this global network, enabling you to interact with other users, websites, and services. It's like a giant library, containing an incredible amount of information on virtually every topic imaginable, and you can access it at any time, from anywhere with an internet connection.

The internet works through a series of protocols and standards that ensure data can flow and be understood by different devices. The World Wide Web (WWW) is one of the most well-known aspects of the internet, allowing you to access web pages and content using web browsers like Chrome, Firefox, or Safari. But the internet goes beyond just browsing; it enables email communication, social media interactions, video conferencing, online gaming, file sharing, and much more.

**2.What is web browser? Explain in your own words?**

**Ans:** A web browser is a software application that allows users to access and interact with the World Wide Web. It serves as an interface between users and the vast collection of websites and online content available on the internet.

In simple terms, a web browser acts like a gateway or a window to the internet. When you type a website address or URL (Uniform Resource Locator) into the browser's address bar and hit enter, the browser sends a request to the web server hosting that website. The server then responds by sending the webpage's data back to your browser, which interprets and displays the content on your screen.

Common examples of web browsers include Google Chrome, Mozilla Firefox, Microsoft Edge, Apple Safari, and Opera. Each browser may have its own unique features and performance characteristics, but they all serve the fundamental purpose of enabling users to explore and interact with the vast information and services available on the internet.

**3.What is browser engine? Explain in your own words?**

**Ans:** In simple terms, a browser engine (also known as a rendering engine or layout engine) is the core software component responsible for interpreting and displaying web content like HTML, CSS, and JavaScript in a web browser.

When you enter a website URL in your browser and hit Enter, the browser engine takes over. It fetches the requested web page's resources (HTML, CSS, images, etc.) from the internet and starts processing them.

The browser engine plays a crucial role in rendering web pages and ensuring a consistent and standardized experience across different browsers. Popular web browsers like Google Chrome, Mozilla Firefox, and Microsoft Edge use their respective rendering engines.

**4.What is static site? Explain in your words?**

**Ans:** In simple terms, a static website is a type of website that is built using only static files, which means the content and design remain fixed and unchanged unless manually updated by a developer. These static files typically consist of HTML, CSS, JavaScript, images, and other assets.

Unlike dynamic websites, static sites do not use server-side processing or a database to generate and display content. Instead, every page on a static site is a separate standalone file. When a user visits a page, the web server simply retrieves and serves the corresponding file without any additional processing.

Advantages of static sites include:

1. **Speed:** Static sites are faster to load because there's no need to generate content dynamically on the server. The files are served as-is, leading to quicker loading times and better user experience.
2. **Security:** Since there's no server-side processing, the attack surface is reduced, making static sites less prone to certain types of security vulnerabilities.
3. **Scalability:** Static sites can handle a large number of visitors without putting much strain on the server, making them more scalable.
4. **Simplicity and Low Cost:** Static sites are relatively easy to build, require minimal server resources, and can be hosted on inexpensive hosting services or even for free in some cases.

However, static sites have some limitations:

1. **Lack of Interactivity:** As they are static, these sites cannot offer highly interactive features like user logins, comments, or real-time content updates.
2. **Maintenance:** Any content updates or changes require manual editing of the files and redeployment to the server, which might be impractical for large sites.
3. **Dynamic Content:** If a site requires frequently changing content, a dynamic website with server-side processing and databases might be more suitable.

**5.What is dynamic site? explain in your words?**

**Ans:** In my words, a dynamic site refers to a type of website that generates and displays content on the fly, in real-time, based on user interactions and data processing. Unlike static websites, which present fixed content stored in files, dynamic sites utilize server-side technologies and databases to dynamically assemble and deliver customized content to each user.

Dynamic sites are designed to adapt to user input, preferences, and actions. They allow for interactive features such as user accounts, personalized recommendations, real-time updates, and dynamic forms. The content presented to users can change based on their login status, location, browsing history, or other variables, making the experience more engaging and tailored to each visitor.

The key components of a dynamic site typically include:

Server-side scripting: Technologies like PHP, Python, Ruby, or Node.js are commonly used to process user requests and generate dynamic content before sending it to the user's browser.

Database integration: Dynamic sites rely on databases to store and retrieve data. This data can include user profiles, product information, comments, and much more.

Client-side interactions: In addition to server-side processing, dynamic sites often use client-side scripting languages like JavaScript to add interactivity and perform tasks directly on the user's browser.

Overall, dynamic sites are a powerful tool for creating interactive and personalized online experiences, catering to individual users' needs and preferences. They are commonly used in e-commerce, social media platforms, web applications, and other websites where content needs to be updated frequently and tailored to each user's requirements**.**

**THANK YOU!!**

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