CHECKPOINT

- **_WHAT DOES WEB MEAN?_**

- THE WEB IS THE COMMON NAME FOR THE WORLD WIDE WEB, A SUBSET OF THE INTERNET CONSISTING OF THE PAGES THAT CAN BE ACCESSED BY A WEB BROWSER. MANY PEOPLE ASSUME THAT THE WEB IS THE SAME AS THE INTERNET, AND USE THESE TERMS INTERCHANGEABLY. HOWEVER, THE TERM INTERNET ACTUALLY REFERS TO THE GLOBAL NETWORK OF SERVERS THAT MAKES THE INFORMATION SHARING THAT HAPPENS OVER THE WEB POSSIBLE. SO, ALTHOUGH THE WEB DOES MAKE UP A LARGE PORTION OF THE INTERNET, BUT THEY ARE NOT ONE AND SAME

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How the Web Works

When you enter something like Google.com the request goes to one of many special computers on the Internet known as *Domain Name Servers* (DNS). All these requests are routed through various routers and switches. The domain name servers keep tables of machine names and their IP addresses, so when you type in Google.com it gets translated into a number, which identifies the computers that serve the Google Website to you.

When you want to view any page on the Web, you must initiate the activity by requesting a page using your browser. The browser asks a domain name server to translate the domain name you requested into an IP address. The browser then sends a request to that server for the page you want, using a standard called Hypertext Transfer Protocol or HTTP.

The server should constantly be connected to the Internet, ready to serve pages to visitors. When it receives a request, it looks for the requested document and returns it to the Web browser. When a request is made, the server usually logs the client's IP address, the document requested, and the date and time it was requested. This information varies server to server.

An average Web page actually requires the Web browser to request more than one file from the Web server and not just the HTML page, but also any images, style sheets, and other resources used in the web page. Each of these files including the main page needs a URL to identify each item. Then each item is sent by the Web server to the Web browser and Web browser collects all this information and displays them in the form of Web page.

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WHAT DO YOU NEED TO BE A WEB DEVELOPER ?

1. FUNDAMENTAL SKILLS:

HTML/CSS: *These are the basic building blocks of web development. HTML (HyperText Markup Language) is used for creating the structure of web pages, while CSS (Cascading Style Sheets) is used for styling and layout.*

2. PROGRAMMING LANGUAGES:

JAVASCRIPT: It's essential for front-end development. It enables you to create dynamic, interactive web pages.

BACK-END LANGUAGES: Depending on the area you want to specialize in, you might need to learn languages like Python, Ruby, Java, PHP, or .NET. These are used for server-side scripting and database management.

3. WEB DEVELOPMENT FRAMEWORKS/LIBRARIES:

FRONT-END FRAMEWORKS: Such as React.js, Angular, or Vue.js. These libraries/frameworks make it easier to develop interactive and dynamic user interfaces.

BACK-END FRAMEWORKS: Like Express.js for Node.js, Django for Python, or Ruby on Rails. These frameworks simplify the process of building robust, scalable web applications.

4. VERSION CONTROL/GIT:

Understanding how to use version control systems like Git is crucial for collaborating with other developers and managing your codebase.

5. BASIC GRAPHIC DESIGN:

While not mandatory, having a basic understanding of graphic design principles and tools like Adobe Photoshop or Sketch can be very helpful, especially for front-end developers

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6. Databases and Web Storage:

Familiarity with databases (such as MySQL, PostgreSQL, MongoDB) and understanding of concepts like CRUD (Create, Read, Update, Delete) operations are essential for back-end development.

7. Web APIs:

Understanding how to work with APIs (Application Programming Interfaces) enables you to integrate your web applications with other services and data sources.

8. Problem-Solving and Debugging:

Being able to solve problems logically and debug code effectively is a crucial skill for any developer.

9. Soft Skills

Communication: You should be able to convey technical information clearly to both technical and non-technical stakeholders.

Continuous Learning: Web technologies evolve rapidly; being open to learning new tools and languages is vital.

Teamwork: Often, web development projects are collaborative efforts, so being a good team player is important.

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WHY DID YOU CHOOSE TO LEARN WEB DEVELOPMENT?

I CHOSE TO BE A WEB DEVELOPER IN ORDER TO UNDERSTAND HOW NETWORKING WORK IN GENERAL AND TO BUILD/DEVELOP MY OWN SET OF TOOLS AND NEEDS IN GENERAL, AND OF CORSE TO HELP DETERMINING MY FUTURE CARRIER!