

## Tutorial Task: Week 9

Research and arrive at a list of answers on the following questions:

1. What and who is a web developer?

**Ans:** A Web developer is a type of programmer who focuses on developing applications for the World Wide Web or distributed network applications. Utilizing associated programming languages like HTML/CSS and C#, HTTP is sent from a Web server to a client browser. Programmers are typically used to refer to web developers. They transform the design that was created by web designers into a fully functional website. (anonymous007, 21 Jun, 2022)

2. What is Frontend, Backend and Full Stack Development?

**Frontend:** Frontend development is the part of web development that codes and creates features or frontend elements of a website that are immediately observable and accessible by the client or end user.

**Backend:** Backend development is the correct term for web development that takes place at the back end of programs. (Duggal, Nov 18, 2022)

**Full stack:** End-to-end application software development, including the front end and back end, is referred to as full stack development. The user interface is part of the front end, while the business logic and application workflows are handled by the back end. It refers to the creation of web applications' front end (client side) and back end (server side) components. (AbhiDoshi, 18 Jan, 2022)

3. Differentiate between Static vs Dynamic site

STATIC	Dynamic
Each time the page is loaded, the prebuilt content remains the same.	Content is created "on the fly" and frequently changes.
Only when the file is updated and published does the content change.	The "server-side" code on the page lets the server make unique content when the page is loaded.
HTML code	Other can access database content.

(MKS075, 15 Jun, 2020)

4. Describe the role of HTML, CSS and JavaScript in web development

The fundamental structure of websites is provided by HTML, which is enhanced and modified by CSS and JavaScript, among other technologies. HTML is the foundation of webpages and is used to structure websites and web apps during webpage development.

Layout, formatting, and presentation are all controlled by CSS. CSS is the foundation of webpages and is used to style webpages.

JavaScript is used to control how various elements behave. Although it is most commonly used for developing web pages, JavaScript is also utilized in a variety of non-browser environments. (Kartikaybhutani, 01 Jul, 2022)

5. Explain the different file formats used in Web: XML and JSON

Web XML and JSON use different file formats, including the following:

XML: The definition of XML can be found in the World Wide Web Consortium's XML 1.0 Specification. It was designed to be universal, allowing for a wide range of applications. A balanced version of Hypertext Markup Language (HTML) and the definition of Extensible Hypertext Markup Language (XHTML) are both included. File sizes decreased when HTML was less stringent.

JSON: Keeping the XML-based flexible entry format, JSON is a simpler encoding format. RFC 7159 and ECMA-404 address JSON at this time. Although RFC 7159 addresses some security and semantic issues, ECMA is primarily a syntax definition. (Wong, April 28, 2015)

6. What is the use of a database in websites?

A public web server might not require a database at all for a website constructed from straightforward HTML files. This is a website in its most basic form that stores all of its content in separate files. Because the website's output is static and does not change unless the site administrator changes those files, the website does not need to store new information. (John, January 1, 2020)

7. What is a web server? List different types of web servers used today.

A computer known as a Web server hosts each website. The internet is always accessible to this server. A series of four numbers between 0 and 255 separated by periods form a unique address for each Web server connected to the Internet. Take for instance 68.178.157

There are four leading web servers they are Apache, IIS, lighttpd and Jigsaw. (vitteshagupta, 27 Sep, 2019)

8. What is API and what is its use in modern web development?

The Application Programming Interface, or API for short, is the primary participant in all interactivity. It functions like a messenger, sending our requests to a system and receiving a response back through seamless connectivity. API not only provide reusability of code but also uses the concept of Abstraction.

The following are the most typical applications of API concepts in real life:

In a restaurant, a waiter will take your order to the chef and bring back the dish you requested. On a switchboard, you can turn off the tube lights with just one press.

You can book a flight online through websites like MMT (web-based) or sign up for a shopping site using your Facebook account (web-based). (akritigoswami, 20 Sep, 2019)

## References

AbhiDoshi, 18 Jan, 2022.

akritigoswami, 20 Sep, 2019.

anonymous007, 21 Jun, 2022.

Duggal, N., Nov 18, 2022.

John, January 1, 2020.

Kartikaybhutani, 01 Jul, 2022.

MKS075, 15 Jun, 2020.

vitteshagupta, 27 Sep, 2019.

Wong, W. G., April 28, 2015.