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Assignment

1.Research on HTTP and HTTPS stating what each code represents and when we can possibly have them

HTTP stands for Hypertext Transfer Protocol, which is the protocol used for transmitting data over the internet. It is the foundation of any data exchange on the Web. HTTP is typically used when data transmission does not require high security.

HTTPS, on the other hand, stands for Hypertext Transfer Protocol Secure. It is an extension of HTTP that encrypts data transmission using an SSL (Secure Sockets Layer) or TLS (Transport Layer Security) protocol. HTTPS is used when there is a need for secure communication, such as when transmitting sensitive information like financial details or personal data.

2. **Differentiate after well explanation on request and response**

. In the context of web communication:

Request: A request is made by a client (typically a web browser) to access a specific resource on a server. It includes the HTTP method (e.g., GET, POST, PUT) and the URL of the resource being requested. Additional information, such as headers and body parameters, may also be included.

Response: A response is the reply from the server to the client's request. It includes the HTTP status code (e.g., 200 for a successful request, 404 for a not found error), headers containing metadata, and the content of the requested resource.

The main difference between a request and a response is that a request is initiated by the client to request information or to perform an action, while a response is sent by the server to fulfill the client's request or provide an error message if the request was unsuccessful.

3. **Write short note on HTML and TAGS**

HTML, or Hypertext Markup Language, is the standard markup language used for creating web pages and web applications. It provides a structure and content organization for web documents. HTML uses tags to define elements and specify how content should be displayed in a web browser.

Tags are special characters or keywords enclosed in angle brackets (<>) that define elements in an HTML document. They consist of an opening tag, content, and a closing tag. For example, the

tag is used for paragraphs, the OBJ tag for images, and the tag for hyperlinks.

HTML tags can also include attributes, which provide additional information about elements. Attributes are specified within the opening tag and consist of a name and a value. For example, the OBJ tag can have attributes like src (to specify the image source) and alt (to provide alternative text).

Tags and attributes are essential for structuring web content and creating interactive and dynamic web pages.

4. **Write short note on client and server and state the types of server.**

In computer networking:

A client is a device or software application that initiates communication with a server. It sends requests to a server and receives responses in return. Clients can include web browsers, mobile apps, or any device or software that accesses resources on a server.

A server is a hardware or software application that provides services or resources to clients. It listens for client requests, processes them, and sends back responses. Servers can handle various types of services, such as web servers (providing web pages), email servers (managing email communication), or file servers (storing and sharing files).

Different types of servers include:

Web Server: These servers deliver web pages and files to clients over the internet. Common web servers include Apache HTTP Server and Nginx.

Email Server: These servers handle email communication, including sending, receiving, and storing emails. Examples include Microsoft Exchange Server and Postfix.

File Server: These servers store and manage files for clients, allowing them to access and share files within a network. Examples include Windows File Server and NFS (Network File System).

Database Server: These servers manage and provide access to databases. They store, retrieve, and manipulate data for clients. Examples include MySQL, Oracle Database, and Microsoft SQL Server.