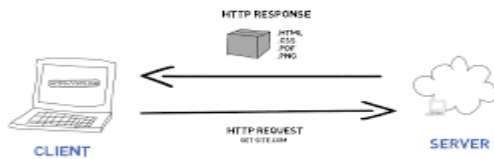


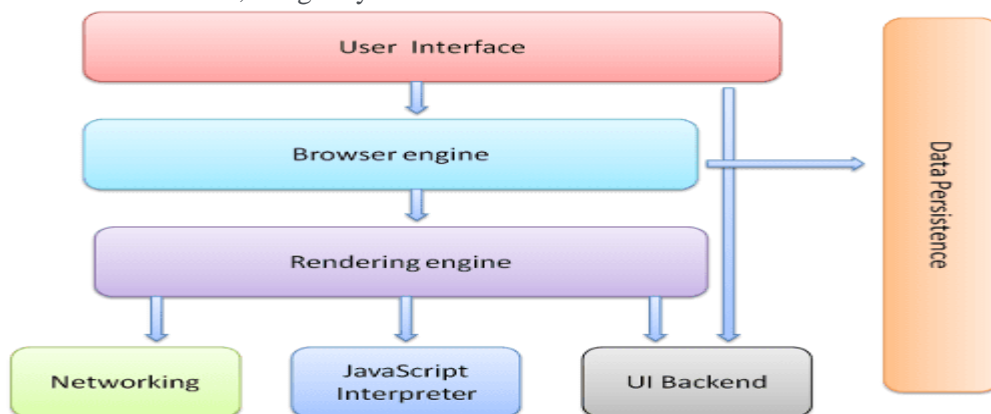
1.How does the internet work?

Ans:The internet is a global network of interconnected computers that communicate using standardised protocols such as TCP/IP. Data is transmitted through a series of routers and switches that direct traffic across the network.



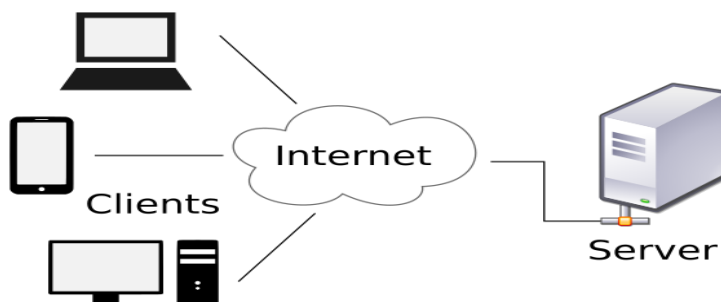
2.How browser works?

Ans:Web browsers are the most widely used software.its primary function is to locate and retrieve web pages, images, videos, documents, and other files from servers and display them on the user's device. For instance, imagine you want to visit a website.



3. What is a Server?

Ans:A server is a computer program or device that provides a service to another computer program and its user, also known as the client.



4. what are the types of server available?

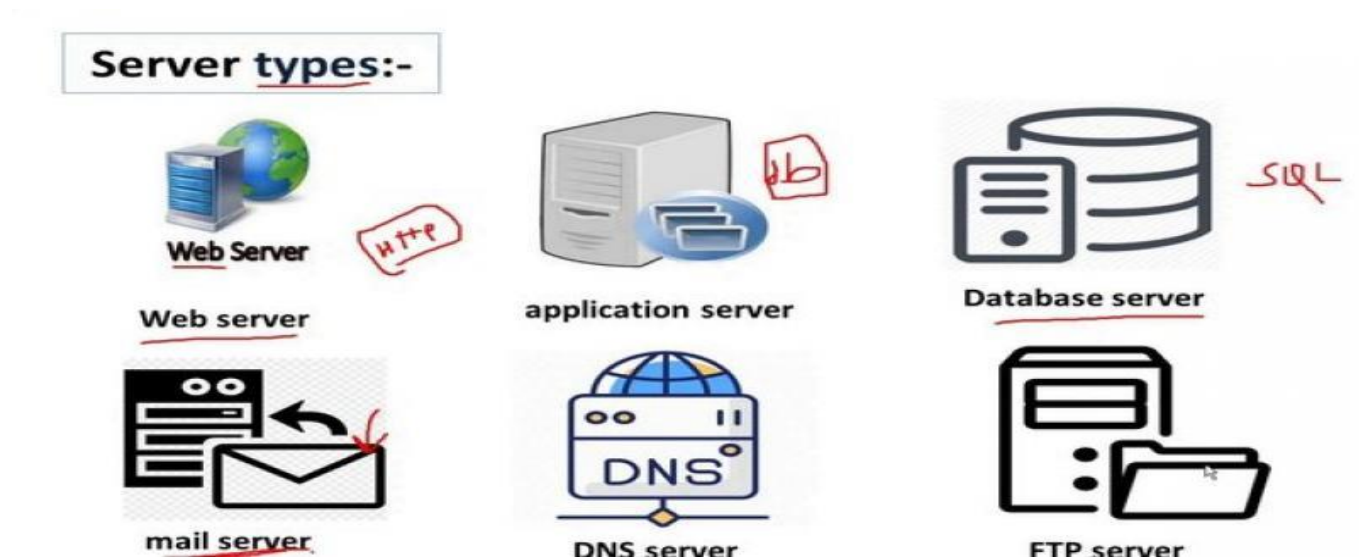
Ans:Database servers, print servers, mail servers, file servers, application servers, web servers, and game servers are a few examples of servers. The request-response paradigm, in which a client submits a request to the server, is the one used to create client-server systems most frequently.

There are several types of servers used in computing and networking environments, each serving specific functions and purposes. Here are some common types of servers:

1..**Web Server:** A server that delivers web pages over the internet. Examples include Apache HTTP Server, Nginx, Microsoft IIS.

2. **File Server:** Stores and manages files that are shared across a network. It allows users to access files remotely.

3. **Database Server:** Manages database operations, storing and retrieving data for other computers connected to the network. Examples include MySQL, PostgreSQL, Oracle Database.
4. **Application Server:** Provides middleware services for application integration, such as database access, business logic, messaging, etc.
5. **Mail Server:** Manages and transfers email over a network. Examples include Microsoft Exchange Server, Postfix, Sendmail.
6. **FTP Server:** Facilitates file transfers over a network using the FTP (File Transfer Protocol) standard.



5. What is SEO? Importance of SEO?

Ans: SEO (Search Engine Optimization) is the practice of optimizing websites to improve their visibility in search engine results pages (SERPs). It helps drive organic traffic to websites by making them more accessible to search engines like Google.



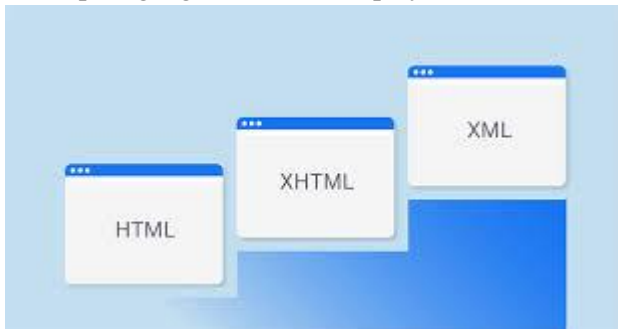
6. What is Accessibility?

Ans: Accessibility refers to designing products, services, and environments so they can be used by people with disabilities. In web design, accessibility ensures that websites are usable by everyone, including those with visual, auditory, motor, and cognitive impairments.



7. What is Markup Language?

Ans: A Markup language is a computer language that uses tags to define elements within a document. Markup language, standard text-encoding system consisting of a set of symbols inserted in a text document to control its structure, formatting, or the relationship between its parts. markup language on how to display it.



8. What is HTML?

Ans: HTML stands for Hyper Text Markup Language .HTML is a markup language

A "markup language" is a computer language that describes how a page should be formattedA markup language is a set of markup tagsThe tags describe document contentHTML documents contain HTML tags and plain textHTML documents are also called web pagesHTML is neutral and can be used on any platform or desktop unlike most other programming languages.

9. What is browser engine?

Ans: It is the essential software that acts as a bridge between the web page's code (HTML, CSS, JavaScript) and the visual experience you see on your screen.

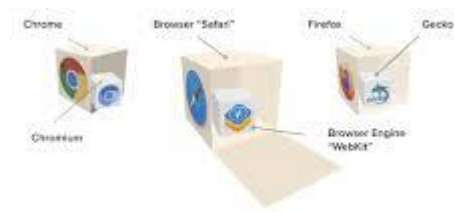


10. What is rendering engine? share the available rendering engine?

Ans: A rendering engine interprets HTML, CSS, and JavaScript to render web pages.

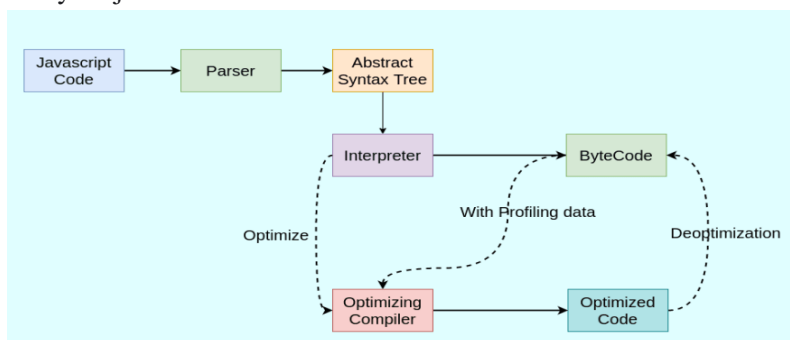
responsible for displaying the requested web resources by parsing the contents. Examples include:

- Blink
- WebKit
- Gecko



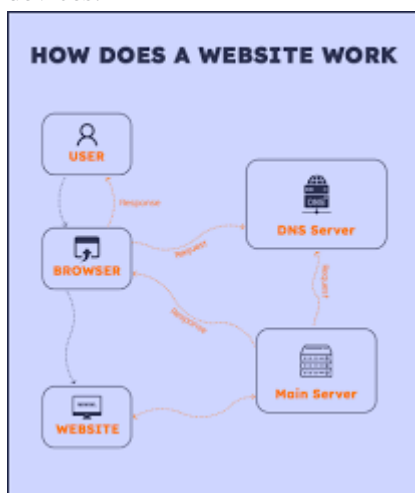
11. What is JavaScript Engine? share the available JS engine? Purpose of JS Engine?

Ans: A JavaScript engine is a software component that executes JavaScript code. The first JavaScript engines were mere interpreters, but all relevant modern engines use just-in-time compilation for improved performance. JavaScript engines are typically developed by web browser vendors, and every major browser has one.



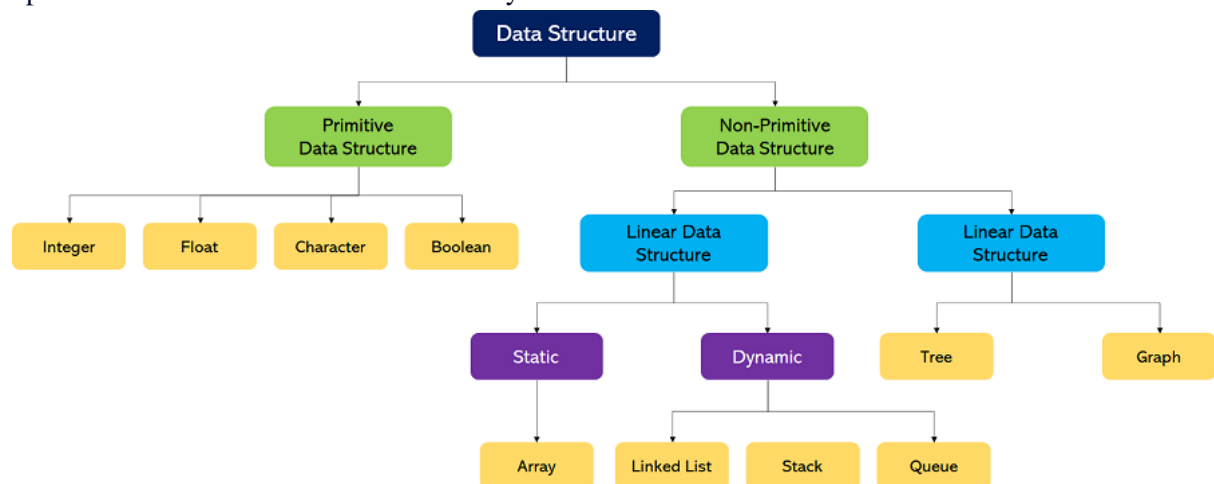
12.How website works?

Ans: A website is a collection of interlinked web pages accessed via the Internet. It delivers information, entertainment, or services to users through a web browser on computers or mobile devices.



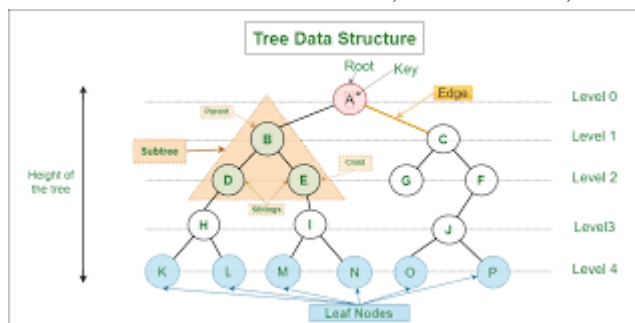
13. What is Data Structure?

Ans: Data Structure is a method of managing and arranging data in such a way that we can conduct operations on these data in an efficient way.



14. Explain Tree Data Structure?

Ans: A tree data structure consists of nodes where each node has a value and a list of references to other nodes (children). It starts with a root node and branches out into subtrees. Trees are used in hierarchical structures like XML, HTML DOM, file systems, etc.

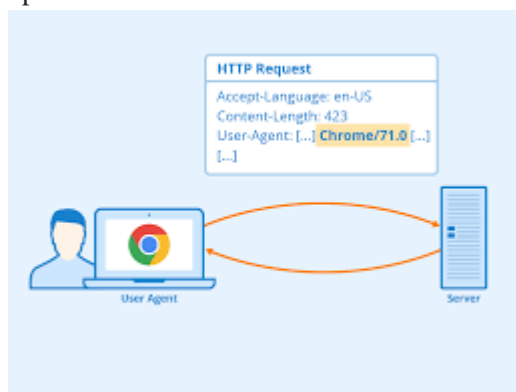


15. What is user agent? share the list and its purpose?

Ans: A user agent is a string of text that is sent by a web browser to a web server to identify itself and provide information about the browser's capabilities.

Purpose:

The main purpose of a user agent is to inform websites about the type of device, operating system, browser, and version that is accessing the site. This information helps websites deliver content optimised for different devices and browsers.



16. What is Hypertext?

Ans: Hypertext is text that contains links to other texts or resources that the reader can immediately access, usually by clicking on a highlighted or specially marked word or phrase. The purpose of

hypertext is to provide a non-linear way of organizing and accessing information. It allows users to navigate and interact with content in a flexible and dynamic manner.

17. What is HTML Tags?

Ans: HTML stands for Hyper Text Markup Language. HTML is the standard markup language for creating Web pages. HTML describes the structure of a Web page. HTML consists of a series of elements.

- The `<!DOCTYPE html>` declaration defines that this document is an HTML5 document
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the HTML page
- The `<title>` element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
- The `<body>` element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

Basic HTML Tags		
Tag Name	Opening Tag	Closing Tag
HTML	<code><html></code>	<code></html></code>
Head	<code><head></code>	<code></head></code>
Title	<code><title></code>	<code></title></code>
Body	<code><body></code>	<code></body></code>
Heading 1 to Heading 6	<code><h1> to <h6></code>	<code></h1> to </h6></code>
Paragraph	<code><p></code>	<code></p></code>
Anchor	<code><a></code>	<code></code>
Image	<code></code>	
Unordered List	<code></code>	<code></code>
Ordered List	<code></code>	<code></code>
List Item	<code></code>	<code></code>
Divides	<code><div></code>	<code></div></code>
Table	<code><table></code>	<code></table></code>
List Group	<code></code>	



- **18. What is HTML Attributes?**
- **Ans:** All HTML elements can have attributes
- Attributes provide additional information about elements
- Attributes are always specified in the start tag
- Attributes usually come in name/value pairs like: `name="value"`

The `<a>` tag defines a hyperlink. The `href` attribute specifies the URL of the page the link goes to:

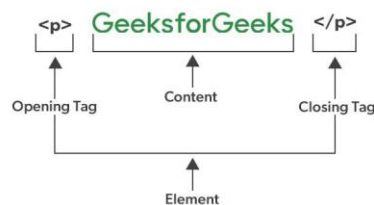


19. What is HTML Elements?

Ans: An HTML Element is a collection of start and end tags with the content inserted between them. HTML elements are building blocks of web pages, representing different types of content such as headings, paragraphs, links, and images.

Syntax:

```
<tagname> Contents... </tagname>
```



20. How do convert elements to tree?

Ans: 1. **HTML Document Structure:** An HTML document is structured as a hierarchical tree of elements. At the top level, you have the `<html>` element, which contains the `<head>` and `<body>` elements.

2. **Parsing HTML:** When a web browser loads an HTML document, it goes through a process called parsing. During parsing, the browser reads the HTML code and converts it into a structured tree of elements called the **Document Object Model (DOM)**.

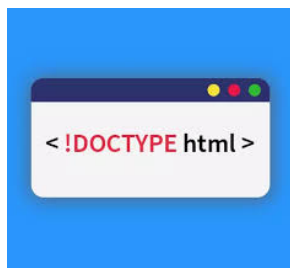
3. **DOM Tree Construction:** The DOM tree represents the structure of the HTML .

4. **Hierarchy and Relationships:** The DOM tree reflects the hierarchical relationships between elements based on their nesting within the HTML document.

5. **Traversal and Manipulation:** Developers can traverse and manipulate the DOM tree using JavaScript. This allows for dynamic updates, such as adding or removing elements, changing content, modifying attributes, and responding to user interactions.

21.What is DOCTYPE?

Ans: All HTML documents must start with a `<!DOCTYPE html>` declaration. The declaration is not an HTML tag. It is an "information" to the browser about what document type to expect.



22.What are the ways we can save html file?

Ans: Navigate to the web page and select File, Save Page As... or right-click and select Save Page As...

Select or create a new folder to save the file, images, and associated items from the web page.

Enter a file name and select Web Page, complete (*.htm;*.html) for the Save as type.

Click Save



23. What is charset? why we need to use this?

Ans: charset = character set utf-8 is character encoding capable of encoding all characters on the web. an encoding system to let computers know how to recognize Character.HTML charsets define character encodings used by the document. The charset attribute within the <meta> tag specifies the character encoding for the HTML document, ensuring proper interpretation of text. Common values include UTF-8 and ISO-8859-1.

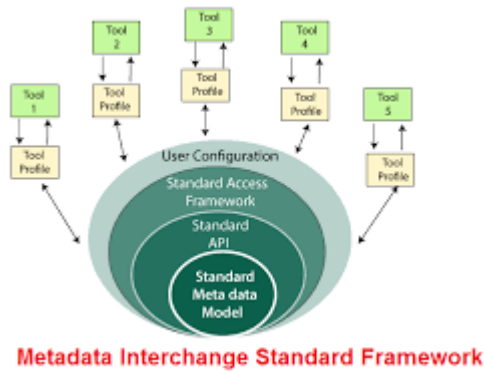


24. What is meta data? what is the purpose of it?

Ans: An element of metadata describes an information resource, or helps provide access to an information resource. A collection of such metadata elements may describe one or many information resources.

purpose :

The data providing information about one or more aspects of the data; it is used to summarise basic information about data that can make tracking and working with specific data easier



25.Explain Web Application Architecture?

Ans:The web application is a program that runs on a browser and it has mainly three formal characteristics.

- Addresses a particular problem, even if it's simply finding some information
- As interactive as a desktop application
- Works with Content Management System.All the web applications run on the client-side and the server-side. When a user makes a request there are mainly two programs run on both sides.
- .Code that runs in the browser and works as per the inputs of the user.
- Code in the server which responds to the HTTP requests .

