Write short note on

Offline browsing

Offline browsers are used for viewing downloaded copies or content from websites while not connected to the Internet (offline). They are used in offline website development and in email readers. Normal browsers may have an offline mode that enables users to view and navigate through Web pages that have been downloaded or stored in the browser's cache memory. Offline browsers do not need an active Internet connection, and are hence found to be useful in portable computers and dial-up access.

Offline browsers are also known as offline readers and offline navigators.

Offline catching

Hypertext

Hypertext is text displayed on a computer display or other electronic devices with references (hyperlinks) to other text that the reader can immediately access.[1] Hypertext documents are interconnected by hyperlinks, which are typically activated by a mouse click, keypress set, or screen touch. Apart from text, the term "hypertext" is also sometimes used to describe tables, images, and other presentational content formats with integrated hyperlinks. Hypertext is one of the key underlying concepts of the World Wide Web,[2] where Web pages are often written in the Hypertext Markup Language (HTML). As implemented on the Web, hypertext enables the easy-to-use publication of information over the Internet.

CGI(Common gateway interface)

CGI In computing, Common Gateway Interface (CGI) is an interface specification that enables web servers to execute an external program, typically to process user requests.[1]

Such programs are often written in a scripting language and are commonly referred to as CGI scripts, but they may include compiled programs.[2]

A typical use case occurs when a Web user submits a Web form on a web page that uses CGI. The form's data is sent to the Web server within an HTTP request with a URL denoting a CGI script. The Web server then launches the CGI script in a new computer process, passing the form data to it. The output of the CGI script, usually in the form of HTML, is returned by the script to the Web server, and the server relays it back to the browser as its response to the browser's request.[3]

Developed in the early 1990s, CGI was the earliest common method available that allowed a Web page to be interactive. Although still in use, CGI is relatively inefficient compared to newer technologies and has largely been replaced by them.[4]

URL

A URL (Uniform Resource Locator) is a unique identifier used to locate a resource on the Internet. It is also referred to as a web address. URLs consist of multiple parts -- including a protocol and domain name -- that tell a web browser how and where to retrieve a resource.

Protocol

A protocol is a standard set of rules that allow electronic devices to communicate with each other. These rules include what type of data may be transmitted, what commands are used to send and receive data, and how data transfers are confirmed.

You can think of a protocol as a spoken language. Each language has its own rules and vocabulary. If two people share the same language, they can communicate effectively. Similarly, if two hardware devices support the same protocol, they can communicate with each other, regardless of the manufacturer or type of device. For example, an Apple iPhone can send an email to an Android device using a standard mail protocol. A Windows-based PC can load a webpage from a Unix-based web server using a standard web protocol.

Php

PHP (Hypertext Pre-processor) is known as a general-purpose scripting language that can be used to develop dynamic and interactive websites. It was among the first server-side languages that could be embedded into HTML, making it easier to add functionality to web pages without needing to call external files for data. Its use has evolved over the years, with regular upgrades (version 8.0 was released in November 2020) adding features and unlocking new capabilities.

Define DHTML what is the role of external CSS in DHTML explain in suitable example

DHTML stands for Dynamic Hypertext Markup language i.e., Dynamic HTML.

Dynamic HTML is not a markup or programming language but it is a term that combines the features of various web development technologies for creating the web pages dynamic and interactive.

We can easily use the CSS with the DHTML page with the help of JavaScript and HTML DOM. With the help of **this.style.property=new style** statement, we can change the style of the currently used HTML element. Or, we can also update the style of any particular HTML element by **document.getElementById(id).style.property = new_style** statement.

How to create hyperlink in webpage what are the different colour of links

```
<style>
a:link {
  color: green;
  background-color: transparent;
  text-decoration: none;
}

a:visited {
  color: pink;
  background-color: transparent;
  text-decoration: none;
}

a:hover {
  color: red;
  background-color: transparent;
  text-decoration: underline;
}

a:active {
  color: yellow;
  background-color: transparent;
  text-decoration: underline;
}
</style>
```

What do you understand by HTML dome

The Document Object Model (DOM) is a programming API for HTML and XML documents. It defines the logical structure of documents and the way a document is accessed and manipulated. In the DOM specification, the term "document" is used in the broad sense - increasingly, XML is being used as a way of representing many different kinds of information that may be stored in diverse systems, and much of this would traditionally be seen as data rather than as documents. Nevertheless, XML presents this data as documents, and the DOM may be used to manage this data.

With the Document Object Model, programmers can create and build documents, navigate their structure, and add, modify, or delete elements and content. Anything found in an HTML or XML document can be accessed, changed, deleted, or added using the Document Object Model, with a few exceptions - in particular, the DOM interfaces for the internal subset and external subset have not yet been specified.

The Document Object Model is a programming API for documents. The object model itself closely resembles the structure of the documents it models. For instance, consider this table, taken from an HTML document:

What is CSS give any 3 significance of CSS

Cascading Style Sheet(CSS) is used to set the style in web pages that contain HTML elements. It sets the background color, font-size, font-family, color, … etc property of elements on a web page.

There are three types of CSS which are given below:

Inline CSS

Internal or Embedded CSS

External CSS

Significance

- Easier to maintain and update.
- Greater consistency in design.
- More formatting options.
- Lightweight code.
- Faster download times.
- Search engine optimization benefits.
- Ease of presenting different styles to different viewers.
- Greater accessibility.

What are the 3 types of list that use in HTML explain each with proper example

The three list types

There are three list types in HTML:

- **unordered list** — used to group a set of related items in no particular order
- **ordered list** — used to group a set of related items in a specific order
- **description list** — used to display name/value pairs such as terms and definitions

Each list type has a specific purpose and meaning in a web page.

Unordered lists

Unordered (bulleted) lists are used when a set of items can be placed in any order. An example is a shopping list:

- milk
- bread
- butter
- coffee beans

Although the items are all part of one list, you could put the items in any order and the list would still make sense:

- bread
- coffee beans
- milk
- butter

You can use CSS to change the bullet to one of several default styles, use your own image, or even display the list without bullets — we'll look at how to do that in the Styling lists and links article.

Unordered list markup

Unordered lists use one set of `<ul></ul>` tags wrapped around one or more sets of `<li></li>` tags:

```
<ul>
  <li>bread</li>
  <li>coffee beans</li>
  <li>milk</li>
  <li>butter</li>
</ul>
```

Ordered lists

Ordered (numbered) lists are used to display a list of items that should be in a specific order. An example would be cooking instructions:

1. Gather ingredients
2. Mix ingredients together
3. Place ingredients in a baking dish
4. Bake in oven for an hour
5. Remove from oven
6. Allow to stand for ten minutes
7. Serve

If the list items were moved around into a different order, the information would no longer make sense:

1. Gather ingredients
2. Bake in oven for an hour
3. Serve
4. Remove from oven
5. Place ingredients in a baking dish
6. Allow to stand for ten minutes
7. Mix ingredients together

Ordered lists can be displayed with several sequencing options. The default in most browsers is decimal numbers, but there are others available:

- Letters
  - Lowercase ascii letters (a, b, c…)
  - Uppercase ascii letters (A, B, C…).
  - Lowercase classical Greek: (έ, ή, ί…)
- Numbers
  - Decimal numbers (1, 2, 3…)
  - Decimal numbers with leading zeros (01, 02, 03…)
  - Lowercase Roman numerals (i, ii, iii…)
  - Uppercase Roman numerals (I, II, III…)
  - Traditional Georgian numbering (an, ban, gan…)
  - Traditional Armenian numbering (mek, yerku, yerek…)

As with unordered lists, you can use CSS to change the style of your ordered lists. See Styling lists and links for more information.

Ordered list markup

Ordered lists use one set of `<ol></ol>` tags wrapped around one or more sets of `<li></li>` tags:

```
<ol>
  <li>Gather ingredients</li>
  <li>Mix ingredients together</li>
  <li>Place ingredients in a baking dish</li>
  <li>Bake in oven for an hour</li>
```

```
  <li>Remove from oven</li>
  <li>Allow to stand for ten minutes</li>
  <li>Serve</li>
</ol>
```

Beginning ordered lists with numbers other than 1

A common requirement in ordered list usage is to get them to start with a number other than 1 (or i, or I, etc.). This is done using the `start` attribute, which takes a numeric value (even if you're using CSS to change the list counters to be alphabetic or Roman). This is useful if you have a single list of items, but need to break up the list with a note or other related information. For example, we could do this with the previous example:

```
<ol>
  <li>Gather ingredients</li>
  <li>Mix ingredients together</li>
  <li>Place ingredients in a baking dish</li>
</ol>

<p>Before you place the ingredients in the baking dish, preheat the oven to
180 degrees centigrade/350 degrees fahrenheit in readiness for the next step.</p>

<ol start="4">
  <li>Bake in oven for an hour</li>
  <li>Remove from oven</li>
  <li>Allow to stand for ten minutes</li>
  <li>Serve</li>
</ol>
```

This gives the following result:

1. Gather ingredients
2. Mix ingredients together
3. Place ingredients in a baking dish

Before you place the ingredients in the baking dish, preheat the oven to 180 degrees centigrade/350 degrees fahrenheit in readiness for the next step.

1. Bake in oven for an hour
2. Remove from oven
3. Allow to stand for ten minutes
4. Serve

Note that this attribute was deprecated in HTML 4, so it will prevent your page from validating if you are using an HTML4 strict doctype. If you want to make use of such functionality in an HTML4 strict page, and it absolutely has to validate, you can do it using CSS Counters instead. Fortunately, however, the `start` attribute has been reinstated in HTML5.

Description lists

Description lists (previously called *definition lists*, but renamed in HTML5) associate specific names and values within a list. Examples might be items in an ingredient list and their descriptions, article authors and brief bios, or competition winners and the years in which they won. You can have as many name-value groups as you like, but there must be at least one name and at least one value in each pair.

Description lists are flexible: you can associate more than one value with a single name, or vice versa. For example, the term "coffee" can have several meanings, and you could show them one after the other:

```
coffee

  a beverage made from roasted, ground coffee beans
  a cup of coffee
  a social gathering at which coffee is consumed
  a medium to dark brown colour
```

Or, you can associate more than one name with the same value. This is useful to show variations of a term, all of which have the same meaning:

```
soda
pop
fizzy drink
cola

  a sweet, carbonated beverage
```

Description list markup

Description lists use one set of `<dl></dl>` tags wrapped around one or more groups of `<dt></dt>` (name) and `<dd></dd>` (value) tags. You must pair at least one `<dt></dt>` with at least one `<dd></dd>`, and the `<dt></dt>` should always come first in the source order.

A simple description list of single names with single values would look like this:

```
<dl>
  <dt>Name</dt>
  <dd>Value</dd>
  <dt>Name</dt>
  <dd>Value</dd>
  <dt>Name</dt>
  <dd>Value</dd>
</dl>
```

This is rendered as follows:

```
Name
  Value
Name
  Value
Name
  Value
```

In the following example, we associate more than one value with a name, and vice versa:

```
<dl>
  <dt>Name1</dt>
  <dd>Value that applies to Name1</dd>
  <dt>Name2</dt>
  <dt>Name3</dt>
  <dd>Value that applies to both Name2 and Name3</dd>
  <dt>Name4</dt>
  <dd>One value that applies to Name4</dd>
  <dd>Another value that applies to Name4</dd>
```

```
</dl>
```

That code would render like this:

```
Name1
    Value that applies to Name1
Name2
Name3
    Value that applies to both Name2 and Name3
Name4
    One value that applies to Name4
    Another value that applies to Name4
```

Which tag is used to insert image in webpage explain with help of example

What are frames how are they used in creating division of webpage

HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document. A collection of frames in the browser window is known as a frameset. The window is divided into frames in a similar way the tables are organized: into rows and columns.

Creating Frames

To use frames on a page we use <frameset> tag instead of <body> tag. The <frameset> tag defines, how to divide the window into frames. The **rows** attribute of <frameset> tag defines horizontal frames and **cols** attribute defines vertical frames. Each frame is indicated by <frame> tag and it defines which HTML document shall open into the frame.

Note − The <frame> tag deprecated in HTML5. Do not use this element.

Example

Following is the example to create three horizontal frames −

Live Demo

```
<!DOCTYPE html>
<html>

    <head>
        <title>HTML Frames</title>
    </head>

    <frameset rows = "10%,80%,10%">
        <frame name = "top" src = "/html/top_frame.htm" />
        <frame name = "main" src = "/html/main_frame.htm" />
        <frame name = "bottom" src = "/html/bottom_frame.htm" />

        <noframes>
```

```
        <body>Your browser does not support frames.</body>
      </noframes>

   </frameset>

</html>
```

What is the difference between HTML XHTML

1. XHTML :
XHTML stands for Extensible Hypertext Markup Language. It can be considered as a part of the XML markup language this is because of XHTML have features of both XML and HTML. XHTML is extended from XML and HTML. XHTML can be considered as a better version of HTML.

2. HTML :
HTML is the Hypertext Markup Language which is the most widely used language over the internet. HTML is used to create web pages and link them from one to another. Please note HTML is not a programming language, it is a markup language. We can use different other technologies as like

Difference between HTML and XHTML :

S.No.	HTML	XHTML
1.	HTML stands for Hypertext Markup Language.	XHTML stands for Extensible Hypertext Markup Language.
2.	It was developed by Tim Berners-Lee.	It was developed by W3C i.e World Wide Web Consortium.
3.	It was developed in 1991.	It was released in 2000.
4.	It is extended from SGML.	It is extended from XML and HTML.
5.	The format is a document file format.	The format is a markup language.
6.	All tags and attributes are not necessarily to be in lower or upper case.	In this, every tag and attribute should be in lower case.

S.No.	HTML	XHTML
7.	Doctype is not necessary to write at the top.	Doctype is very necessary to write at the top of the file.
8.	It is not necessary to close the tags in the order they are opened.	It is necessary to close the tags in the order they are opened.
9.	While using the attributes it is not necessary to mention quotes. For e.g. <Geeks>.	While using the attributes it is mandatory to mention quotes. For e.g. <Geeks="GFG">.
10.	Filename extension used are .html, .htm.	Filename extension are .xhtml, .xht, .xml.

What is server side programming give significance of server side programming
https://www.crampete.com/blogs/introduction-to-server-side-programming-languages/

Advantages of server side programming language

- Server side scripting runs scripts on the server, reducing the burden on the user's machine.

- Database web applications may be created using server side scripting.

- Even if users access the source code, server side scripting is used to hide scripts from them; only client side scripts are shown.

- Server side scripting is used to quickly create dynamic websites with content that can be changed at any moment by the site administrator.

- Because server side scripts are not browser-dependent, we don't have to worry about browser versions.

- Complex activities may be completed in a few stages thanks to server side scripting.

- It's simple to understand and utilise.

Disadvantages of server side programming language

- Debugging web server scripts is tricky.

- Web server scripting is a hacking vulnerability.

- Hosting a web server can be taxing on a computer since it necessitates a big amount of RAM, lowering the system's speed.

What is the layer of software of information system describe each layer with significance

What is JavaScript and it's significance

JavaScript is:

⬜ JavaScript is a lightweight, interpreted programming language

⬜ Designed for creating network-centric applications

⬜ Complementary to and integrated with Java

⬜ Complementary to and integrated with HTML

⬜ Open and cross-platform

Advantages of JavaScript:

The merits of using JavaScript are:

⬜ Less server interaction: You can validate user input before sending the page off

to the server. This saves server traffic, which means less load on your server.

⬜ Immediate feedback to the visitors: They don't have to wait for a page reload

to see if they have forgotten to enter something.

⬜ Increased interactivity: You can create interfaces that react when the user

hovers over them with a mouse or activates them via the keyboard.

⬜ Richer interfaces: You can use JavaScript to include such items as drag-and drop
components and sliders to give a Rich Interface to your site visitors.

Limitations with JavaScript:

We can not treat JavaScript as a full fledged programming language. It lacks the

following important features:

⬜ Client-side JavaScript does not allow the reading or writing of files. This has been

kept for security reason.

⬜ JavaScript can not be used for Networking applications because there is no such

support available.

⬜ JavaScript doesn't have any multithreading or multiprocess capabilities.

How many major components are required to develop website, specify each component

7 main components of a website

The following are the **7 main components** of a website.

1. **Navigation :**
   The navigation is one of most significant pieces of a site, as it causes clients to handily explore whole webpage and encourages web index to get a thought regarding structure of site.

Complex navigation can without much of a stretch lead to bring down traffic and higher skip rates. Navigation ought to incorporate every significant class and page. Dropdown menus can be utilized and subcategories must be under classifications. Navigation is something that is shown on each page and post of site so it ought to be done cautiously.

2. [Web Hosting](#) **:**
   Every site has a lot of records and envelopes in the backend that makes site open to everybody on the planet ... also, those documents should be put away someplace for which web facilitating is utilized. You have to have a trusted facilitating administration, as facilitating influences site execution from various perspectives, and on the off chance that you are on shared facilitating, you may encounter an overall stoppage, bringing about less client experience. Great facilitating is significant for each site to run easily.

3. **Call-to-Actions :**
   All sites have explicit objectives, for example, transforming guests into leads and tapping on specific subjects that guests can fasten or whatever. That is the reason CTAs are utilized. For sites that attention to changes, source of inspiration is one of the most significant pieces of a site. Guests are told to make the move they need.

By and large, CTAs are outwardly unmistakable and plainly noticeable from every single other piece of page. Ensure your CTA is huge enough on each kind of gadget and uses just plain content, don't convolute duplicating CTA. Instances of CTAs could be "Call us presently", "Join currently", "Attempt it", and so forth.

4. **Title :**
   This is a significant point in any site. Features are a piece of viral promoting and assume a significant mental job. A large portion of books

distributed is appealing books. Book spread intrigues peruser and he purchases book. Features resemble appealing book covers.

Most guests go through under 3 seconds on any site and if title of site is mistaken and not completely lined up with site, you may lose a lot of likely clients. Continuously keep title basic and pointed. Utilize basic words and keep them as short as could reasonably be expected.

Studies show that page of any site is one of the most visited pages, in any case, nobody invests energy in making a perfect format about page. You have to keep all pertinent components of your site or business on your page and be alluring to clients. Clients love to find out about site they are visiting and it makes an individual touch, which assists with expanding drawn-out relationship with clients.

5. **Content :**
   Presently, it relies upon what sort of site you have. Sites require unexpected substance in comparison to administration or business sites, yet content is required for every site. Distribute one of a kind and pertinent content? and spotlight on offering some benefit to your perusers. Content advertising is at its pinnacle nowadays and can help a great deal over the long haul. Google additionally loves sites with quality substance and you get high positions.

6. **Visuals :**
   There are numerous perspectives on site like logo, pictures, and so on and illustrations assume a significant job in making a decent by and large look on site. Scenes are handled quicker by people, so it becomes worth spending on quality illustrations. Pictures of Big Hero additionally make an extremely solid visual experience, which urges clients to look down and bigger pictures are regularly utilized as a foundation. Likewise, ensure illustrations are upgraded for mobile telephones … pictures that look great on work area may not look great on littler gadgets.

7. **Mobile responsiveness :**

These days, PCs and cell phones are similarly inescapable. Be that as it may, cell phones are selling an ever-increasing number of workstations. So a piece of the site is the way clear it is in its responsibility or mobile introduction.

Responsive locales naturally change in accordance with various screen sizes. Must be good with little screen gadgets from features, text, pictures, CTIs, and so forth. Google likewise positions sites dependent on their mobile components, so this is something you can't disregard.

Along these lines, here are a few pieces of site that will assist you with accomplishing objectives of site. On the off chance that you will build up your site for somebody, get some information about these parts, and assess them dependent on their answers.

What do you understand visual programming how many tools are available in visual studio?

visual programming language

A visual programming language (VPL) is a programming language that uses graphical elements and figures to develop a program. A VPL employs techniques to design a software program in two or more dimensions, and includes graphical elements, text, symbols, and icons within its programming context.s