Module (HTML) -1

question:1 Are the HTML tags and elements the same thing?
answer:
HTML tags and elements are related but not exactly the same thing.
HTML elements are the logical components of a web page, represented by a combination of tags and content.
HTML tags are the specific keywords or phrases used to define the start and end of an element.

question:2 What are tags and attributes in HTML?
answer:
HTML, tags and attributes are used to define the structure and properties of elements.
Tags
Tags are the keywords or phrases enclosed in angle brackets (<>) that define the start and end of an element.
They indicate the purpose of the content they surround.
Tags usually come in pairs, with a start tag preceding the content and an end tag following the content.
Attributes
Attributes are added to tags to provide additional information about the element.
They consist of a name and a value, separated by an equals sign (=).
Attributes are placed inside the start tag, after the tag name.
They provide extra details about the element, such as:
- Identities (id, class)
- Styles (style)
- Hyperlink addresses (href)
- Image sources (src)
- Sizes (width, height)
In this example :
a is the tag
href is an attribute

(link unavailable) is the value of the href attribute

question:3 What are void elements in HTML?
answer:
In HTML, void elements, also known as self-closing elements or empty elements, are elements that do not have a closing tag. They are used to represent a single point in the document, rather than a range of content.
Void elements are typically used for elements that do not contain any content, such as images, links, or empty elements
A void element is an element whose content model never allows it to have contents under any circumstances. Void elements can have attributes. The following is a complete list of the void elements in HTML : area , base , br , col , command , embed , hr , img , input , keygen , link , meta , param , source , track , wbr.
Here are some common void elements in HTML:
-img (image)
- input (form input)
- link (link to an external stylesheet or script)
- meta (metadata about the document)
- hr (horizontal rule)
- br (line break)
- area (image map area)
- base (base URL for relative links)
- col (table column)
- command (command button)
- embed (embedded object)
- keygen (key pair generator)
- param (parameter for an object)
- source (media source)
- track (audio or video track)
- wbr (word break opportunity)
Void elements are typically written in a single tag, with no closing tag.
void elements do not have a closing tag,

question:4 What are HTML Entities?

answer:
HTML entities are special characters used in HTML code to represent characters that have a specific meaning in HTML, or characters that are difficult to type or represent directly.

* HTML entities consist of three parts*

1.An ampersand (&)

2.A hash sign (#) followed by a numerical code (called a numerical entity)

3.Or, a named entity (a specific word or abbreviation)

Examples

Numerical entity: &32represents the space character (ASCII code 32)

Named entity: nbsp; represents a non-breaking space

lt; represents the less-than symbol (<)

gt; represents the greater-than symbol (>)

amp; represents the ampersand symbol (&)

quot; represents the double quote symbol (")

apos; represents the apostrophe symbol (')

HTML entities are used for several purposes To represent special characters that have a specific meaning in HTML, like <, >, and &

To represent characters that are difficult to type or represent directly, like ©, ®, and ™

To add spaces or line breaks in places where they would otherwise be ignored

To avoid errors caused by incorrect interpretation of special characters

HTML entities ensures that these characters are displayed correctly in web browsers, and helps maintain the integrity of HTML code.

question:5 What are different types of lists in HTML?

answer:

different types of lists in HTML:

1. Unordered Lists :

2. Ordered Lists :

3. Description Lists :

* 1.unorderd lists*

List items are marked with bullets (•)

Used for lists where the order of items doesn't matter

Example: ingredients in a recipe, shopping list, etc.
* 2.ordered list *
- List items are marked with numbers (1, 2, 3, etc.)
- Used for lists where the order of items matters
- Example: steps in a tutorial, ranking list, etc.
* 3. DESCRIPTION LIST * Lists of terms with descriptions for each term
Used for definitions, glossaries, and other explanatory lists
Example: dictionary entries, FAQs, etc.

QUESTION:6 What is the 'class' attribute in HTML?
answer:
'class' attribute in HTML is used to specify one or more class names for an HTML element [1] [2] [3] [4] [5]:
The 'class' attribute is often used to point to a class name in a style sheet
The 'class' attribute can also be used by a JavaScript to access and manipulate elements with the specific class name.
The 'class' attribute can be used on any HTML element..
Different HTML elements can point to the same class name.
JavaScript can access elements with a specific class name with the 'getElementsByClassName()' method.
Multiple classes can be added to an element by separating the class names with a space.
The class attribute specifies one or more classnames for an element.
The class attribute is mostly used to point to a class in a style sheet However, it can also be used by a JavaScript (via the HTML DOM) to make changes to HTML elements with a specified class.
The class attribute is part of the Global Attributes, and can be used on any HTML element.

question : 7 What is the difference between the 'id' attribute and the 'class' attribute of HTML elements?
answer:
The main difference between the 'id' attribute and the 'class' attribute in HTML is'id' is unique to an element, like a person's

name class' is like a category or group name that can apply to many elements

'id' attribute
- Unique identifier for a single element
- Only one element can have a specific 'id' on a page
- Used for targeting a specific element with CSS or JavaScript
- Often used for styling a single element or accessing it with JavaScript

*'class' attribute *
- Group identifier for multiple elements
- Multiple elements can share the same 'class'
- Used for styling multiple elements or grouping them for JavaScript manipulation
- Can be used to apply similar styles or behaviors to multiple elements

question: 8 What are the various formatting tags in HTML?
answer:
various formatting tags in HTML [1] [2] [3] [4]:
1.Bold Text:
The HTML (B)element is a physical tag that displays text in bold font, without any logical importance.
2.Italic Text:
The HTML (I) element is physical and displays the content in italic font, without any added importance.
3.Important Text:
The HTML (STRONG) tag is a logical tag that displays the content in bold font and informs the browser about its logical importance.
4.Emphasized Text:
The HTML (EM) tag is a logical element that will display the enclosed content in italic font, with added semantics importance.
5.Highlighted Text:
The HTML (MARK) element defines text that should be marked or highlighted.
6.Underlined Text:
The HTML (U) element is used to show text in underlined format.
7.Strike-through Text:

The HTML (STRIKE) element is used to show strikethrough text.
8.Monospaced Font:
The HTML (TT) element is used to display text in monospaced font format.
9.Superscript Text:
The HTML (SUP) element is used to display text in superscript format.
10.Subscript Text::
The HTML (SUB) element is used to display text in subscript format.
11.Deleted Text:
The HTML (DEL) element is used to display text as deleted text.
12.Inserted Text:
The HTML (INS) element is used to display text as inserted text.
13. Larger Text:
The HTML (BIG) element is used to increase the font size of the text larger than the rest of the text.
14 .Smaller Text:
The HTML (SMALL) element is used to decrease the font size of the text smaller than the rest of the text.
15.Code:.
- The HTML (CODE) tag is used to define a piece of computer code.

question: 9 • How is Cell Padding different from Cell Spacing?
answer:
Cell Padding and Cell Spacing are two different attributes used in HTML tables to control the appearance of table cells.
Cell Padding
Refers to the space between the cell content and the cell border
Adds space inside the cell, making the content appear farther away from the border
Cell Padding adds space inside the cell
Cell Spacing
Refers to the space between adjacent cells (the gap between cells)
Adds space between cells, making them appear separated
Cell Spacing adds space between cells

question : 10 How can we club two or more rows or columns into a single row or column in an HTML table?

answer:

In HTML, you can use the following attributes to merge cells in a table:

ROWSPAN : merges multiple rows into a single cell

COLSPAN : merges multiple columns into a single cell

question : 11 What is the difference between a block-level element and an inline element?

answer:

Block-level elements create a new line, while inline elements do not

Block-level elements have a wider scope, while inline elements have a narrower scope

Block-level elements can contain other elements, while inline elements typically cannot

question :12 How to create a Hyperlink in HTML?

answer:

To create a hyperlink in HTML, you use the (a) element, also known as the anchor element. The basic syntax is (A href="URL")Link Text(/A)

(A) is the opening tag

HREF is the attribute that specifies the URL (web address) you want to link to

URL is the actual web address you want to link to

LINK TEXT is the text that will be displayed as the hyperlink

(/A) is the closing tag

question : 13 What is the use of an iframe tag?

answer:

The (IFRAME) tag in HTML is used to embed another HTML document or resource (such as a webpage, video, or audio content) within an existing HTML document. It creates an inline frame, allowing you to insert content from another source into your webpage.

Here are some uses of the (IFRAME) tag:

1.Embedding external content:
Include content from another website or domain, like a YouTube video or a Google Map, within your webpage..
2.Loading external scripts :
Load JavaScript scripts or stylesheets from a different domain or server.
3.Displaying ads:
Show advertisements from ad networks or third-party providers
4.Integrating third-party services:
Embed content from social media platforms, like Facebook or Twitter, or services like PayPal or Stripe.
5.Creating a sandboxed environment:
Isolate untrusted content or code within an iframe to prevent it from affecting the parent page.
6.Loading content dynamically
Load content dynamically without requiring a full page reload.
The (IFRAME)tag has attributes like src (specifying the URL of the content to embed), width and height (defining the frame's size), and border (controlling the frame's border).

question : 14 What is the use of a span tag? Explain with example?
answer :
The (SPAN) tag in HTML is used to group inline elements together, providing a way to apply styles, semantic meaning, or other effects to a section of text or inline elements without breaking the flow of the text.
Here are some uses of the (SPAM) tag:
1. Styling: Apply styles, like color, font size, or background color, to a specific part of the text
Example: (SPAN STYLE="color: red;")This text will be red(/SPAM)
1. Semantic meaning: Add meaning to a section of text, like indicating a keyword or a specific phrase.
Example: (span class="keyword")HTML(/SPAM)is a markup language
1. Language definition: Specify the language of a section of text, useful for translation or screen readers.
Example: (span lang="es")Hola, mundo!(/SPAM)

1. Highlighting: Highlight a specific part of the text, like a search result or a important phrase.
Example: (SPAM class="highlight")This text will be highlighted(/SPAM)
The (SPAM) tag is a versatile element that can be used in various contexts to provide additional meaning or styling to inline elements.
Here's an example:
(P)This is a sentence with a (SPAN style="font-weight: bold;)"bold (/SPAN) word and a (SPAN style="color: green;")greeN (/span) word.(/P).
In this example, the tag is used to apply bold styling to the word "bold" and green color to the word "green", without breaking the flow of the sentence

question : 15 How to insert a picture into a background image of a web page?
answer:
To insert a picture into a background image of a web page, you can use the CSS background-image property. Here's a step-by-step guide
1 . Choose your image:
Select the picture you want to use as the background image.
2 . Add the image to your website's files:
Upload the image to your website's file system or link to an external URL.
3.Add CSS to your HTML:
Use the (style) tag in your HTML header or link to an external CSS file.
4. Set the background image:
Use the background-image property to set the image as the background.
* Example *
(style) body { background-image: url("image_url"); } (/style)
Replace "image_url" with the URL of your image.
Optional
background-size:

Set the image size (e.g., cover, contain, or specific dimensions).
background-position :
Set the image position (e.g., center, top, or specific coordinates).
background-repeat :
Set the image repeat behavior (e.g., no-repeat, repeat-x, or repeat-y).
*Example with optional properties *
(style) body { background-image: url("image_url"); background-size: cover; background-position: center; background-repeat: no-repeat; } (/style)
This will set the image as the background, scaling it to cover the entire page, centering it, and preventing repetition.
Remember to replace "image_url" with your actual image URL.

question : 16 How are active links different from normal links?
answer:
Active links and normal links are both hyperlinks, but they differ in their state and behavior:
Normal links
Are inactive until clicked
Appear in the default link color (usually blue)
Do not indicate any specific action or state
* Active links *
Are currently being clicked or have been recently clicked
Appear in a different color (usually red or purple) to indicate their active state
Indicate that the link is being accessed or has been recently accessed
When a user clicks a normal link, it becomes an active link, and its appearance changes to indicate that it is being accessed. Once the user releases the mouse button, the link returns to its normal state.
* The distinction between active and normal links is important for *
Visual feedback: Active links provide a visual indication that the user has interacted with the link.
Accessibility: Screen readers and other assistive technologies may announce the active link state to users with disabilities.

Styling: Developers can apply different styles to active links to create visual effects or indicate the link's state.
In HTML, the :active pseudo-class is used to style active links, while the :link pseudo-class is used for normal links.

question 17 What are the different tags to separate sections of text?
answer :
HTML provides several tags to separate sections of text, each with a specific meaning and purpose
1 . Headings
(h1): Main heading (most important)
(h2): Subheading (less important than (h1))
(h3): Sub-subheading (less important than (h2))
....
-(h6): Least important heading
2. Paragraphs:
- (p): Defines a paragraph of text
3. Line Breaks:
- (br): Inserts a single line break
4. Horizontal Rule:
- (hr): Inserts a horizontal line to separate sections
\ 5. Sections:
-(section): Defines a self-contained section of related content
6. Articles:
- (article): Defines an independent piece of content, like a blog post or news article
7. Headers:
- (header): Defines the header section of a document or section
8. Footers:
- (footer): Defines the footer section of a document or section
9. Divisions:
- (div): Groups elements together for styling or semantic purposes
These tags help structure content, improve readability, and provide meaning to search engines and screen readers.

question : 18 What is SVG ?

answer:
SVG stands for Scalable Vector Graphics, a type of vector image format that is defined in XML format [1] [2]. Here are some key points about SVGs [1] [2]:
SVG images can be zoomed in and out without losing quality
SVG images can be searched, indexed, scripted and compressed
SVG files are pure XML and considered an open standard
Elements and attributes in SVG files can be animated
SVG integrates well with other standards, like CSS, DOM, XSL and JavaScript
Most major browsers support SVG images

question : 19 What is difference between HTML and XHTML?
answer :
Here are the main differences between HTML and XHTML [1] [2] [3] [4] [5]:
HTML is more lenient with syntax, but XHTML has stricter rules and follows XML syntax.
HTML focuses on how content is displayed, but XHTML focuses on the content's structure.
HTML does not require a specific DTD, but XHTML does.
HTML does not support namespaces, but XHTML does.
HTML allows the use of deprecated attributes, but XHTML does not.
HTML continues to be supported, but XHTML support is limited and has been replaced by HTML5.

question : 20 What are logical and physical tags in HTML?
answer :
In HTML, tags can be classified into two categories: logical (also known as semantic) and physical (also known as presentational).
Logical (Semantic) Tags
Define the meaning and purpose of content
Describe the structure and organization of content
Examples: (header), (nav), (main), (section), (articles), (aside), (footer)(/footer)
These tags provide meaning to search engines, screen readers, and othermachines that interpret HTML

Physical (Presentational) Tags
Define the visual appearance and layout of content
Control formatting, styling, and display
Examples: (b), (i), (u), (font), (centere), (big), (small)(/small)
These tags are used to control the visual presentation of content,
but do not provide meaning or structure
In general, logical tags are preferred over physical tags because
they provide a more meaningful and accessible way to structure
content, while physical tags are more focused on visual
presentation. Modern HTML development emphasizes the use of
logical tags, and many physical tags have been deprecated or
replaced with CSS styling.

Module (HTML5) – 3

question 1 : What are the new tags added in HTML5?
answer :
Here are the new tags in HTML5 [1] [2] [3] [4]:
(article): represents an independent piece of content
(aside): represents a piece of content slightly related to the rest of
the page
(audio): defines an audio file
(canvas): renders dynamic bitmap graphics
(command): represents a command the user can invoke
(data list): used to make comboboxes
(details): represents additional information or controls
(embed): defines external interactive content
(figure): represents a piece of self-contained content
(footer): represents a footer for a section
(header): represents a group of introductory or navigational aids
(hgroup): represents the header of a section
(keygen): represents a key-pair generator
(mark): represents marked text
(meter): represents a measurement
(nav): represents a section for navigation
(output): represents some type of output
(progress): represents the completion of a task

(ruby), (rt), and (rp): allow for marking up ruby annotation
(section): represents a generic document or application section
(time): represents a date and/or time
(video): defines a video file
(wbr): represents a line break opportunity
(input): new types for input tags
- color: color selector
- date: selector for calendar date
- datetime-local: date and time display with no time zone
- datetime: full date and time display with time zone
- email: input field for email
- month: selector for a month within a given year
- number: field containing a numeric value only
- range: numeric selector within a range of values
- search: term to supply to a search engine
- tel: input field for telephone number
- time: time indicator and selector with no time zone
- url: input field for URL
- week: selector for a week within a given year

question : 2 How to embed audio and video in a webpage?
answer:
To embed audio and video in a webpage, you can use the HTML5
(audio) and (video) tags. Here's a brief overview:
src: specifies the audio file URL
ontrols: adds playback controls (play, pause, volume)
Optional attributes:
autoplay: starts playing automatically
loop: loops the audio
preload: preloads the audio file

src: specifies the video file URL
controls: adds playback controls (play, pause, volume)
* Optional attributes:*
autoplay: starts playing automatically
loop: loops the video
preload: preloads the video file

width and height: specify the video dimensions

You can also use the poster attribute to specify a thumbnail image for the video.

Additional options: Use the (source) tag to specify multiple audio or video files for different browsers or devices.

Use the track tag to add subtitles, captions, or chapters to the audio or video

Use JavaScript libraries like Plyr or Video.js to enhance the playback experience.

Remember to ensure that the audio and video files are hosted on a server that supports the necessary MIME types.

question : 3 Semantic element in HTML5?

answer :

HTML5 semantic elements are those that clearly describe their meaning in a human- and machine-readable way. Here are some examples of semantic elements [1] [2] [3]:

article: specifies independent, self-contained content

aside: defines some content aside from the content it is placed in

details: defines additional details that the user can hide or view

figcaption: defines a caption for a figure element

figure: specifies self-contained content, like illustrations, diagrams, photos, code listings, etc

footer: defines a footer for a document or section

header: represents a container for introductory content or a set of navigational links

main: defines the main content of the document

mark: hig8hlights the text

nav: defines a set of navigation links

section: defines a section in a document

summary: defines a visible heading for a details element

time: defines a date and/or time

question :4 Canvas and SVG tags

answer :

The (canvas) and (svg) tags are both used for creating graphics in HTML, but they serve different purposes and have different

characteristics:

canvas:

Used for dynamic, interactive, and pixel-based graphics

Renders graphics using JavaScript and the Canvas API

Supports animations, games, and real-time graphics

Not search engine optimized (SEO) friendly

Not accessible for screen readers and search engines

svg

Used for static, scalable, and vector-based graphics

Renders graphics using XML and the SVG format

Supports graphics, charts, logos, icons, and illustrations

- SEO friendly and accessible for screen readers and search engines

Can be styled with CSS and scripted with JavaScript

Key differences

(canvas) is pixel-based, while (svg) is vector-based

(canvas) is better for dynamic graphics, while (svg) is better for static graphics

(canvas) is not SEO friendly, while (svg) is

When to use each:

Use (canvas) for games, animations, and real-time graphics - Use (svg)for logos, icons, charts, and illustrations that need to be scalable and accessible.