**Current Version: HTML5**

1. **What is the difference between <div> tag and <span> tag ?**

**<div> tag:**

<div> tag is used to create group of html elements.It is a block level element that means it creats a new block or section.

Ex:

<div>

<p>this is a p tag </p>

<a>this is a tag </a>

</div>

**<span> tag:**

<span> tag is used to create group of inline elements.

Ex:

<p>this is p <span>tage</span> </p>

1. **What is the difference between <SVG> tag and <CANVAS> tag ?**

|  |  |
| --- | --- |
| **SVG** | **CANVAS** |
| SVG is vector based and composed of shapes. | CANVAS is raster based and composed of pixel. |
| Modified through script and css. | Modified through script only. |
| Good text rendering capabilities. | Poor text rendering capabilities. |
| Svg has better scalability, so it can be printed with high quality on any resolution. | Canvas has poor scalability, Hence it can not be printed with high quality on any resolution. |

**Ex. For <svg> tag:**

To draw a circle :

<svg width="100" height="100">  
  <circle cx="50" cy="50" r="40" stroke="green" stroke-width="4" fill="yellow" />  
</svg>

To draw a rectangle :

<svg width="400" height="100">  
  <rect width="400" height="100" style="fill:rgb(0,0,255);stroke-width:10;stroke:rgb(0,0,0)" />  
</svg>

To draw a square with rounded corners:

<svg width="400" height="180">  
  <rect x="50" y="20" rx="20" ry="20" width="150" height="150" style="fill:red;stroke:black;stroke-width:5;opacity:0.5" />  
</svg>

**Ex. For <canvas> tag:**

To draw a rectangle:

<canvas id="myCanvas"> </ canvas>

<script>

var c = document.getElementById("myCanvas");

var ctx = c.getContext("2d");

ctx.fillStyle = "#FF0000";

ctx.fillRect(0, 0, 80, 100);

</script>

To draw a rectangular box:

<canvas id="myCanvas" width="200" height="100" style="border:1px solid #000000;">  
</canvas>

To draw a circle:

<canvas id="myCanvas" width="200" height="100" style="border:1px solid #d3d3d3;"></canvas>

<script>

var c = document.getElementById("myCanvas");

var ctx = c.getContext("2d");

ctx.beginPath();

ctx.arc(95,50,40,0,2\*Math.PI);

ctx.stroke();

</script>

1. **What is the difference between Raster image and Vector image ?**

|  |  |
| --- | --- |
| **Raster Image** | **Vector Image** |
| Raster image (Bitmap image) is based on pixel. | Vector image is based on mathematical calculation. |
| It gets pixlated when enlarged. | No matter how big or small, it maintains itself. |
| File size of raster image depends on actual size of image. | The file size of vector image is very small. |
| It takes too many time to convert from raster image to vector image. | it can be easily convert from vector image to raster image. |
| Raster file fomates like: png,jpeg,gif,bmp,tiff | Vector file fomates like: svg,pdf,ai,cdr |

1. **What is the difference between <b> tag and <strong> tag ?**

The output of both tag are same but meaning of both tag are different.

The <b> tag is used to show bold text while the <strong> tag is used to show bold text along with importance of the text.

1. **What is the difference between <i> tag and <em>** **(emphasized) tag ?**

The output of both tag are same but meaning of both tag are different.

The <i> tag is used to show italic text normally while <em> tag is used to show italic text forcefully.

1. **What is the difference between HTML and HTML5 ?**

|  |  |
| --- | --- |
| **HTML** | **HTML5** |
| HTML is based on SGML. | HTML5 is not based on SGML. |
| Diffucult to include and handle multimedia. | Easy to include and handle multimedia. |
| <audio>tag and <video>tag are not supported. | <audio>tag and <video>tag are supported. |
| Declaration of html tag:  <!DOCTYPE HTML PUBLIC “.W3C/DTD HTML4.01/EN> | Declaration of html5 tag:  <!DOCTYPE html> |
| Character declaration encoding is longer:  <!DOCTYPE HTML PUBLIC “.W3C/DTD HTML4.0 Transitional/EN> | Character declaration encoding is simple:  <meta charset=”UTF-8”> |

**Removed tags from HTML5:**

<frameset> <no frame> <center> <strike> <big><dir>

**Added tags in HTML5:**

**<Audio><Video><header><footer><canvas><nav> <article><mark><source><progress>**20+tags were added

**Added input type in HTML5:**

**date, time, number**, **email, search, tel, url,color**

1. **What is web worker ?**

A web worker is a javascript that runs in background independently, without affecting the performace of page. When execute scripts in HTML page, the page becomes unresponsive until the script is finished. You can continue whatever you want to do, like: clicking, selecting , etc. while the web worker runs in background.

1. **how to create a text that allows to send email ?**

<a href="mailto:videshi.muduli@infusai.com">email</a>

<a href="telto:+919770730985">Call</a>

1. **what are the physical and logical tags in html5 ?**

Physical tags are used to show visual appearance on the text.

Exp: <b> tag, <i> tag, <u> tag

Logical tags are used to append the value.

Exp: <em> tag, <strong> tag

1. **Is html5 is based on SGML ?**

No, HTML5 is not based on SGML. SGML and HTML5 syntax both are same. Doc Type Declaration does not require for HTML5.

1. **What are the web components ( DOM-Document Object Module ) ?**

**Web Components is a suite of different technologies that allows to create reusable custom elements with their functionality.**

it consists of three main technologies:

**Custom elements**: We can create custom elements by using java script.

Ex: var ele = document.createElement(“button”); [already read]

* **Shadow DOM**: [Already read]
* **HTML templates**: [Already know]

1. **How to use geolocation in HTML ?**

<html>

<head>

</head>

<body>

<button onclick="CheckLocation()">Check Location</button>

<script>

function CheckLocation()

{

if(navigator.geolocation) // to check that geolocation is supports or not

{

//alert("supported");

navigator.geolocation.getCurrentPosition(mycoords); //to get and send coordinates/position of current user

}

else{

alert("Not Supported");

}

}

function mycoords(position) // to receive coordinates/position of current user

{

var lat = position.coords.latitude;

var longt = position.coords.longitude;

//alert(lat+" and "+longt)

// than pass both values lat and longt to a particular API ( like:google API ) and we will get user's current city,state,country,pin, etc details..

}

</script>

</body>

</html>

1. **How to validate HTML code ?**

(1)Type html code:

<html>

<head></head>

<body>

<h2>Hey There </h2>

</body>

</html>

(2) save file

(3) search “html code validator” on google and click on one link (like top link)

(4) select html file and get validate.

1. **What is sementic tags ?**

Sementic Tags:

It Defines different sections and layout of web pages.

<article>

<aside>

<details>

<figcaption>

<figure>

<footer>

<header>

<main>

<mark>

<nav>

<section>

<summary>

<time>

1. **Why we use semantic tags?**

* The semantic [tags](https://www.simplilearn.com/tutorials/html-tutorial/html-tags) help to search engines and other user devices to determine the context and importance of web pages.
* Easy to read.
* Better user experience.

1. **How to check website speed ?**

Open [**https://gtmetrix.com/**](https://gtmetrix.com/) then enter your website url

**OR**

Open [**https://developers.google.com/speed/pagespeed/insights/**](https://developers.google.com/speed/pagespeed/insights/)then enter your website url

And get website speed….

1. **How to** **Increase(Optimize) website speed** ?
2. Remove unwanted files.
3. Decrease size of home page.
4. Necessory Troubleshoot in hosting.
5. Use Best hosting.
6. Use lazy loading.
7. Use CDN.
8. **What is <meta> tag** ?

Meta tags are HTML tags. it is used to provide additional information about the page to search engines and other clients.

<meta property="og:url" content="//kgfindia.com/" />

<meta property="og:type" content="website" />

<meta property="og:image" content="//kgfindia.com/Website-logo/Logo2.png" />

<meta property="og:title" content="The size of your earnings is unlimited & depends on your efforts." />

<meta property="og:description" content="Our Affiliate Program is a great way for you to make money by referring clients. You can use your website, blog, email" />

<meta name="description" content="Our Affiliate Program is a great way for you to make money by referring clients. You can use your website, blog, email" />

<meta name="keywords" content="Fast and Secure Withdrawals, User-friendly Interface, Advertised referral link." />

1. **Describe <canvas>,<svg>,<article>,<nav> and <mark> below tags** ?

<canvas> : To show 2D graphs, Pie chart, we use <canvas> tag.

<svg> : To show 2D graphs, Pie chart, we use <svg> tag.

<article>: To create separate section.

<nav>: <nav> tag defines set of navigation.

<mark>: <p>Do not forget to buy <mark>milk</mark> today.</p>

i.e. to highlight any word.

1. **How to create a table** ?

<table cellspacing="5" cellpadding="5" border="1" style="border-collapse: collapse;" >

<thead>

<tr>

<th>Month</th>

<th>Savings</th>

</tr>

</thead>

<tbody>

<tr>

<td>January</td>

<td>$100</td>

</tr>

</tbody>

</table>

1. **Write example of Flex Box Property** ?
2. **Example 1**

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

<style>

.parent {

display: flex; /\*using flex\*/

}

</style>

</head>

<body>

<h1>Example of <b>flex</b>: We use flex to show divs in one row.</h1>

<div class="parent">

<div style="border:1px solid red;width:100%;">

This is Left part

</div>

<div style="border:1px solid green;width:100%;">

This is Middle part

</div>

<div style="border:1px solid blue;width:100%;">

This is right part

</div>

<div style="border:1px solid yellow;width:100%;">

This is Last part

</div>

</div>

</body>

</html>

1. **Example 2**

<!DOCTYPE html>

<html>

<head>

<style>

.parent

{

background: blue;

height: 200px;

display: flex;

flex-direction: row;

justify-content: space-around;

align-items: flex-start;

align-content: flex-end;

flex-wrap: wrap;

}

. child

{

background: red;

width: 100px;

}

</style>

<!--

flex-direction: Bydefault it is row, it can be row,row-reverse,column,column-reverse

justify-content: it can be centre,space-around,space-between,space-evenly

align-items: it can be center,flex-start,flex-end,revert

align-content: it can be center,flex-start,flex-end,revert,space-around,space-between,space-evenly

flex-wrap: it can be wrap,nowrap,wrap-reverse

-->

<!—

// For a particular child div

flex-shrink: 0; // it will not resize/shrink according to screen

flex-grow:2; // it will increase width, it can be 0,1,2,3...

align-self:center; // only this div will show in center, it can be flex-start,flex-end

order:4; // we can intercgange position of child div by using order property

-->

</head>

<body>

<div class="parent">

<div class="child" style="height:50px;flex-shrink: 0;order: 5;">welcome1</div>

<!--

flex-shrink: 0; // it will not resize/shrink according to screen

order:5; // it will show instead of 5th div

-->

<div class=" child " style="height:75px;flex-grow:2;order: 4;align-self:center;">welcome2</div>

<!--

flex-grow:2; // it will increase width, it can be 0,1,2,3...

order:4; // it will show instead of 4th div

align-self:center; // only this div will show in center, it can be flex-start,flex-end

-->

<div class=" child " style="height:100px;order: 3;">welcome3</div>

<!--

order:3; // it will show instead of 3rd div

-->

<div class=" child " style="height:125px;order: 2;">welcome4</div>

<!--

order:2; // it will show instead of 2in div

-->

<div class=" child " style="height:150px;order: 1;">welcome5</div>

<!--

order:1; // it will show instead of 1st div

-->

</div>

</body>

</html>

1. **Write example of calc() function in css** **to display divs in a single row** ?

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

<style>

. firstdiv {

width: calc(100% - 200px); /\*using calc property.\*/

float: left;

}

.seconddiv {

width: 100px;

float: left;

}

. thirddiv {

width: 100px;

float: left;

}

</style>

</head>

<body>

<h2><b style="color:red;">calc</b>: Adjust two or more div in one row,using width property including percentage and pixel property.</h2>

<div class="firstdiv">

This is Left part

</div>

<div class=" seconddiv ">

This is middle part

</div>

<div class="thirddiv">

This is last part

</div>

</body>

</html>

1. **How to** **select <div> by Nth child property** ?

<!DOCTYPE html>

<html>

<head>

<style>

/\* Selects the second element of div siblings \*/

div:nth-child(2) {

background: red;

}

/\* Selects the second li element in a list \*/

li:nth-child(2) {

background: lightgreen;

}

/\* Selects every third element among any group of siblings \*/

:nth-child(3) {

background: yellow;

}

</style>

</head>

<body>

<div>

<p>This is some text.</p>

</div>

<div>

<p>This is some text.</p>

</div>

<div>

<p>This is some text.</p>

</div>

<ul>

<li>First list item</li>

<li>Second list item</li>

<li>Third list item</li>

<li>Fourth list item</li>

<li>Fifth list item</li>

</ul>

</body>

</html>

1. **What is HTML** ?

Html is a markup language which is used to create web page.

Extension: .html and .htm.

Html5 is updated version of html released in 2014 by world wide web consortium.

1. **What is HTML list** ?

We can create html list by using <ul><li> or <ol><li>

1. **What is HTML Web Page (Layout)** ?

Html webpage is arranged in a specific format. There are some sections define the different parts of web page.

Like : header section, footer section, left section, right section, middle section.

1. **What is Box Model** ?

Box model is used to determine height and width of rectangular box. it consist of height, width,margin,

padding and border property.

1. **What is Flex Box** ?

We can arrange multiple divs in specific format like : row wise, column wise, centre alignment ,top

alignment , bottom aalignment etc.

(already seen in html coding,display:flex; property)

1. **What are html forms** ?

Forms are used to collect and save user information in database when they are filled.

1. **What is image map** ?

Image map provides multiple links in a single image. It is represented by <map> tag.

Ex:

<img usemap="#workmap" src="workplace.jpg" >

<map name="workmap">

<area shape="rect" coords="34,44,270,350" alt="Computer" href="computer.html">

<area shape="rect" coords="290,172,333,250" alt="Phone" href="phone.html">

<area shape="circle" coords="337,300,44" alt="Cup of coffee" href="coffee.html">

</map>

https://www.youtube.com/watch?v=VSbrbqDy8ZQ

we can find coord in ms-paint.

1. **What is <embed> tag** ?

Embed tag is used to include audio and video files in html document.

Ex:

<embed type="image/jpg" src="pic\_trulli.jpg" width="300" height="200">

<embed type="text/html" src="snippet.html" width="500" height="200">

<embed type="video/webm" src="video.mp4" width="400" height="300">

1. **What is marquee tag** ?

We can show scrolling text or image by using marquee tag. It can be scrolling up,down,left and right.

Ex:

<marquee behavior="scroll" direction="left" scrollamount="20">Fast Scrolling</marquee>

Note: **direction** can be left,right,up and down, **scrollamount** is used to control speed.

1. **How does html and css work together** ?

Html and css work together to build a web page. Html is the structural code behind of webpage. css provides better look and feel to web page.

1. **What is html** **formatting**?

Html formatting is the process of format, the text for better look and feel.

1. **How many types of heading** ?

6 types : <h1> to </h6>

1. **Which tags we use to create a table** ?

<table>,<thead>,<tr>,<th>,<tbody>,<td>,<tfooter>,<caption>,<col>,<colgroup>

1. **What is the difference between html tags and html elements** ?

HTML tags are used to hold html elements, like: <div>,<p>,<h2> etc. while HTML elements are used to hold html contents, like <b>,<u>,<i>,<span>,<small> etc.

1. **How to create nested web pages** ?

By using <iframe> tag we can create nested web page.

<iframe src=”” height=”400” width=”500” title=”iframe example” />

1. **What is the new(13) form elements type** ?

datalist, keygen, output, date, time, datetime-local, email ,

color, url , number , search, range and telephone

----------

>>datalist:- datalist tag provides auto-complete feature to form elements. It facilitates users to select predefined options . It is similar to <select> tag.

>>keygen:- keygen generates a key-pair field in a form to implement secure authentication.  
>>output:- output represents the result of a calculation.  
>>date:- date is an input field to select date. For example 23-01-2023

>>time:- time is an input field to select time. For example, 15:30 , 10:10 etc.  
>>datetime-local:- datetime-local is an input field to select date and time together.

For example: 23-01-2023 10:30

>>month:- month is an input field to select month and year. For example: June, 2023.  
>>week:- week is an input field to select week and year. For example: Week 01, 2023.

>>email:- email is input field for email with standard validations.  
  
>>color:- color is an input field to select color.

>url:- url is an Uniform Resource Locator and validated accordingly.  
>>number:- number is an input field that allows only numeric values.  
>>range:- range is an input field to select a value within a specified range.

1. **Is there any need to change web browser to support html5** ?

No, almost browser support html5 like chrome,firefox,safari,IE,opera

1. **Which type of video formats are supported by HTML5** ?

Mp4 and WebM

Ex:

<video width="320" height="240" controls>  
   <source src="movie.mp4" type="video/mp4">  
   </video>

1. **Which type of audio formats are supported by HTML5** ?

Mp3 and wav

Ex:

<audio controls>

<source src="horse.mp3" type="audio/mp3">

</audio>

1. **What is the difference between <progress> tag and <meter> tag** ?

Progress tag is used to show progress of task only while meter tag is used to measure the data with in a given range.

Ex: <progress id="file" value="50" max="100" /> // it will show 50% fill and 50% blank

Ex: <meter id="disk\_c" value="10" min="0" max="20">2 out of 10</meter> // it will show 50% fill and 50% blank

<meter id="disk\_d" value="0.5">50%</meter> // it will show 50% fill and 50% blank, value=”1” for 100% fill

1. **What is the use of <figure> tag** **?**

Figure tag is used to add a photo in the web page.

Ex:

<figure>

<img src="pic\_trulli.jpg" alt="Trulli" style="width:100%">

<figcaption>Fig.1 - Trulli, Puglia, Italy.</figcaption>

</figure>

1. **What is the use of <figcaption>** **tag ?**

<figcaption> tag is used to add caption on image. It is an optional tag that can appear before or after the

content with in <figure> tag .

Ex:

<figure>

<img src="pic\_trulli.jpg" alt="Trulli" style="width:100%">

<figcaption>Fig.1 - Trulli, Puglia, Italy.</figcaption>

</figure>

1. **What is the use of <details> tag and <summary> tag** ?

<details> tag is used to specify some additional details on the web page. It can be viewed or hidden on

demand. <summary> tag is used with details tag.

Ex:

<details>

<summary>Heading1</summary>

<p>Epcot is a theme park at Walt Disney World Resort featuring exciting attractions,

international pavilions, award-winning fireworks and seasonal special events.</p>

<summary>Heading2</summary>

<p>Epcot is a theme park at Walt Disney World Resort featuring exciting attractions,

international pavilions, award-winning fireworks and seasonal special events.</p>

</details>

1. **What is the <datalist> tag** ?

<datalist> tag provides an autocomplete feature to form elements. It facilitates users to select predefined

options . It is similar to <select> tag.

Ex: <input list="browsers" >

<datalist id="browsers">

<option value="Edge">

<option value="Firefox">

<option value="Chrome">

<option value="Opera">

<option value="Safari">

</datalist>

1. **What are the entities in html** ?

In html some characters are reserved like < , > , /, etc. To use these characters we need character entities

that is called html entities. Html character entities are used for replacement of reserved characters in html.

1. **What is Lazy Loading** ?

Lazy loading means waiting to render content on webpage untill the user or browser needs it. It helps to

speed up webpage load times.

exp:

(1) <img src="lazy.png" alt="lazy" loading="lazy" />

(2) <img src="duplicate-source.png" alt="lazy" data-src="original-source.png" />

1. **What is Load Balancing in html** ?

Load balancing is a core networking solution used to distribute traffic, across multiple servers in a server

farm.

1. **How to** **blur image by using css property** ?

background: grey;

filter: blur(3px);

1. **What is CDN (Content Delivery Network)** ?

CDN refers to geographically distributed group of servers, which work together

to provide fast delivery of Internet contents. CDN allows quick transfer for loading Internet contents,

including HTML files, css files, javascript files, images, audio and videos files.

Features:

It reduces load of website.

It reduces downtime of website.

It increases security of website.

Better user experience.

CDN is not expensive.

There are some better CDN like: CLOUDFARE, STACKPATH, KEYCDN

**SETUP**: GOTO cloudfare.com and create account, than transfer the domain.

1. **Write the code for mobile responsive with in head tag** ?

<meta name="viewport" content="width=device-width, initial-scale=1" >

1. **What is UI (User Interface)** ?

UI is a point of human interaction and communication with device. The UI design process includes buttons, widgets, text, images, sliders, and other interactive elements. UI designers ensure that every visual element, transition, and animation includes with in a product or service.

**Types of user interfaces**

* graphical user interface ([GUI](https://www.techtarget.com/whatis/definition/GUI))
* command line interface ([CLI](https://www.techtarget.com/searchwindowsserver/definition/command-line-interface-CLI))
* menu-driven user interface
* touch user interface
* voice user interface ([VUI](https://www.techtarget.com/searcherp/definition/voice-user-interface-VUI))
* form-based user interface
* [natural language](https://www.techtarget.com/whatis/definition/natural-language) user interface

1. **What is UX (User Experience)** ?

UX refers to the user’s journey when interacting with a product or service. UX design is the process of creating products or services that provides meaningful experiences for users, involving many different areas of product development including branding, usability, function, and design.

A UX designer’s primary goal is for each user to have a positive interaction with a product or service.

1. **What is the difference b/w UI and UX** ?

|  |  |
| --- | --- |
| **UI** | **UX** |
| UI focuses product’s surface, look and function | UX focuses user’s journey to solve a problem. |
| UI focuses on the more tangible elements. | UX considers the conceptual aspects of the design process |
| UI is the bridge that gets us where we want to go. | UX is the feeling we get when we arrive. |
|  |  |
| UI is specific means by which people interact with a product or service. | UX encompasses all the experiences person has with a product or service. |

1. **What is the principle of creating UI** ?

>> Make consistent user interface. (यूजर इंटरफेस को सुसंगत बनाएं) ( describe….)

>> Allow users to navigate easily via shortcuts (उपयोगकर्ताओं को शॉर्टकट के माध्यम से आसानी से नेविगेट करने की अनुमति दें) ( describe….)

>> Provide informative feedback (जानकारीपूर्ण प्रतिक्रिया प्रदान करें)( describe….)

>> Design dialogs to yield closure (समापन प्राप्त करने के लिए संवाद डिज़ाइन करें)( describe….)

>> Prevent errors as much as possible (यथासंभव त्रुटि को रोकें)( describe….)

>> Allow users to reverse their actions easily (उपयोगकर्ताओं को अपने कार्यों को आसानी से उलटने के तरीकों की अनुमति दें) ( describe….)

1. **What is the difference b/w input type button and button type button** ?

>> We can use an image with button elment as a button but we can not use image in input type button.

>> <button> element supports pseudo-elements such as :after and :before which is very useful to style the button, while

<input type="button" /> doesn't support.

>> By default, <button> element has the default attribute type="submit" white <input type=”button” /> does not have.

**Type** is: submit, button and reset

Ex:

<form onsubmit="Submitform()">

<input type="button" value="yellow" name="btn" id="btn" /> //we can write this

<input type="submit" value="green" name="btngreen" id="btngreen" /> //we can write this

<button type="submit" value=”red”>submit</button> //we can write this and get this value while we can’t

use value attribute div tag, span tag etc…

<button> <img src=”ss.png” /> </button> //we can write this

<button> <input type="button" value="yellow" name="btn" id="btn" /> </button> //we can write this

<input type="button" value="yellow" name="btn" id="btn" > Click </input> //we can not write this

<input type="button" value="yellow" name="btn" id="btn" > <img src=”ss.png” /></input> //we can not write this

</form>