HTML 4.0 AND HTML5 VVI QUESTIONS & ANSWERS

What is the relationship between SGML,HTML , XML and HTML?

SGML (Standard generalized markup language) is a standard which tells how to specify document markup. It's only a Meta language which describes how a document markup should be. HTML is a markup language which is described using SGML.

So by SGML they created DTD which the HTML refers and needs to adhere to the same. So you will always find "DOCTYPE" attribute at the top of HTML page which defines which DTD is used for parsing purpose.
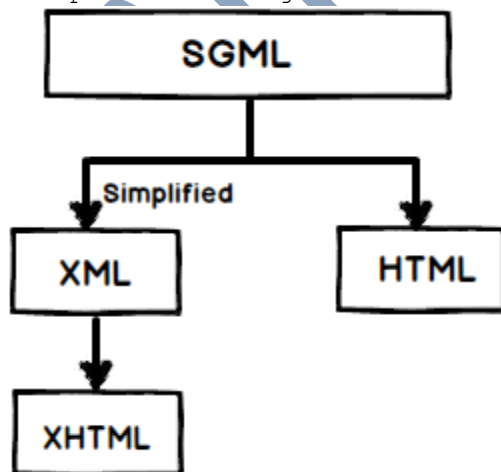
```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
```

Now parsing SGML was a pain so they created XML to make things better. XML uses SGML. For example in SGML you have to start and end tags but in XML you can have closing tags which close automatically ("").

XHTML was created from XML which was used in HTML 4.0. So for example in SGML derived HTML "
" is not valid but in XHTML it's valid. You can refer XML DTD as shown in the below code snippet

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

In short SGML is the parent of every one. Older HTML utilizes SGML and HTML 4.0 uses XHTML which derived from XML.

What is HTML 5?

HTML 5 is a new standard for HTML whose main target is to deliver everything without need to any additional plugins like flash, Silverlight etc. It has everything from animations, videos, rich GUI etc.
HTML5 is cooperation output between World Wide Web Consortium (W3C) and the Web Hypertext Application Technology Working Group (WHATWG).

In HTML 5 we do not need DTD why?

HTML 5 does not use SGML or XHTML it's completely a new thing so you do not need to refer DTD. For HTML 5 you just need to put the below doctype code which makes the browser identify that this is a HTML 5 document.

```
<!DOCTYPE html>
```

If I do not put <! DOCTYPE html> will HTML 5 work?

No, browser will not be able to identify that it's a HTML document and HTML 5 tags will not function properly.
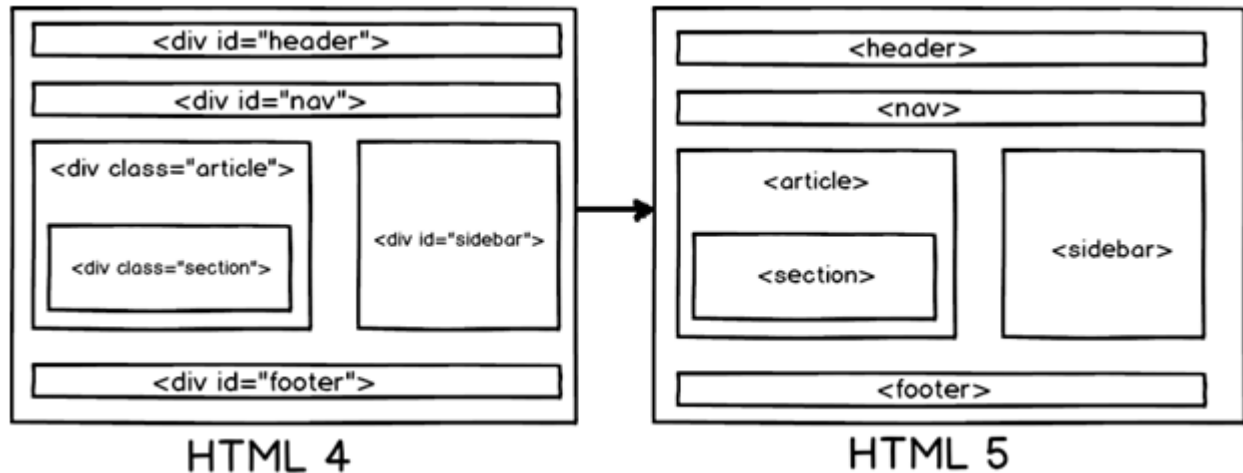
Which browsers support HTML 5?

Almost all browsers i.e. Safari, Chrome, Firefox, Opera, Internet Explorer support HTML 5.

How is the page structure of HTML 5 different from HTML 4 or previous HTML?

```
A typical web page has headers, footers, navigation, central area and side
bars. Now if we want to represent the same in HTML 4 with proper names to the
HTML section we would probably use a DIV tag.
But in HTML 5 they have made it more clear by creating element names for
those sections which makes your HTML more readable.
```

HTML 4 → HTML 5

Below are more details of the HTML 5 elements which form the page structure.

- <header>: Represents header data of HTML.
- <footer>: Footer section of the page.
- <nav>: Navigation elements in the page.
- <article>: Self-contained content.
- <section>: Used inside article to define sections or group content in to sections.
- <aside>: Represent side bar contents of a page.

What is datalist in HTML 5?

Datalist element in HTML 5 helps to provide autocomplete feature in a textbox as shown below.

Below is the HTML code for DataList feature:

```
<input list="Country">
<datalist id="Country">
<option value="India">
<option value="Italy">
<option value="Iran">
<option value="Israel">
<option value="Indonesia">
</datalist>
```

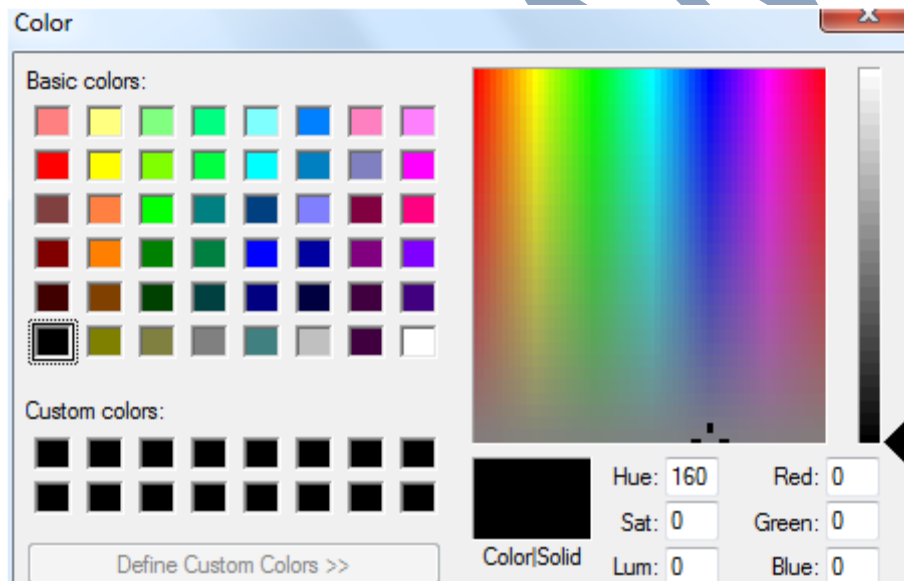# What are the different new form element types in HTML 5?

There are 10 important new form elements introduced in HTML 5:-

1. Color.
2. Date
3. Datetime-local
4. Email
5. Time
6. Url
7. Range
8. Telephone
9. Number
10. Search

Let's understand these elements step by step.

If you want to show color picker dialog box.

```
<input type="color" name="favcolor">
```


If you want to show calendar dialog box

```
<input type="date" name="bday">
```

if you want to show calendar with local time.

```
<input type="datetime-local" name="bdaytime">
```


If you want to create a HTML text with email validation we can set the type as "email".

```
<input type="email" name="email">
```


For URL validation set the type as "url" as shown in the below HTML code.

```
<input type="url" name="sitename">
```

For URL validation set the type as "url" as shown in the below HTML code.

If you want to display textbox with number range you can set type to number.

```
<input type="number" name="quantity" min="1" max="5">
```


If you want to display a range control you can use type as range

```
<input type="range" min="0" max="10" step="2" value="6">
```


Want to make text box as search engine box.

```
<input type="search" name="googleengine">
```

What to only take time input.

```
<input type="time" name="usr_time">
```
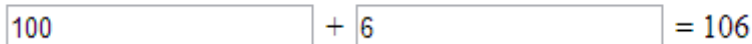
If you want to make text box to accept telephone numbers.

```
<input type="tel" name="mytel">
```

What is output element in HTML 5?

Output element is needed when you need calculation from two inputs to be summarized in to a label. For instance you have two textboxes(see the below figure) and you want to add numbers from these textboxes and send them to a label.

| 100 | + | 6 | = 106 |

Below goes the code of how to use output element with HTML 5.

```
<form onsubmit="return false"  öninput="o.value = parseInt(a.value) +
parseInt(b.value)">
<input name="a" type="number"> +
<input name="b" type="number"> =
<output name="o" />
</form>
```

You can also replace "parseInt" with "valueAsNumber" for simplicity. You can also use "for" in the output element for more readability.

```
<output name="o" for="a b"></output>
```

What is SVG?

SVG stands for scalable vector graphics. It's a text based graphic language which draws images using text, lines, dots etc. This makes it lightweight and renders faster.

Can we see a simple example of SVG using HTML 5?

Let's say we want to display the below simple line using HTML 5 SVG.

Below is how the code of HTML 5. You can see the SVG tag which encloses the polygon tag for displaying the star image.

```
<svg id="svgelem" height="[object SVGAnimatedLength]"
xmlns="http://www.w3.org/2000/svg">
<line x1="[object SVGAnimatedLength]" y1="[object SVGAnimatedLength]"
x2="[object SVGAnimatedLength]" y2="[object SVGAnimatedLength]"
style="stroke: #ff0000; stroke-width: 2px;" />
</svg>
```

What is canvas in HTML 5?

Canvas is an HTML area on which you can draw graphics.

So how can we draw a simple line on Canvas?

- Define the Canvas area.
- Get access to canvas context area.
- Draw the graphic.

Define the canvas area

So to define canvas area you need to use the below HTML code. This defines the area on which you can draw.

```
<canvas id="mycanvas" width="600" height="500" style="border:1px solid
#000000;"></canvas>
```

Get access to canvas area

To draw on the canvas area we need to first get reference of the context section. Below is the code for canvas section.

```
var c=document.getElementById("mycanvas");
var ctx=c.getContext("2d");
```
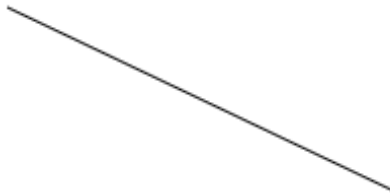
Draw the graphic

Now once you have access to the context object we can start drawing on the context. So first call the "move" method and start from a point , use line method and draw the line and then apply stroke over it.

```
ctx.moveTo(10,10);
ctx.lineTo(200,100);
ctx.stroke();
```

Below is the complete code.

```
<body  önload="DrawMe();">
<canvas id="mycanvas" width="600" height="500" style="border:1px solid
#000000;"></canvas>
</body>
<script>
function DrawMe()
{
var c=document.getElementById("mycanvas");
var ctx=c.getContext("2d");
ctx.moveTo(10,10);
ctx.lineTo(200,100);
ctx.stroke();
}
```

You should get the below output.

What is the difference between Canvas and SVG graphics?

Note: - If you see the previous two questions both canvas and SVG can draw graphics on the browser. So in this question interviewer wants to know when will you use what.

Canvas

SVG

Here's it's like draw and remember. In other words any shape drawn by using SVG can be remembered and manipulated and browser can render it again.

Canvas is like draw and forget. Once something is drawn cannot access that pixel and manipulate it.

SVG is good for creating graphics like CAD software's where once something is drawn the user wants to manipulate it.

Canvas is good for draw and forget scenarios like animati and games.

This is slow as it needs to remember the co-ordinates for later manipulations.

This is faster as there is no intention of remembering thin later.

We can have event handler associated with the drawing object.

Here we cannot associate event handlers with drawing objects as we do not have reference of them.

Resolution independent.

Resolution dependent.

What are selectors in CSS?

Selectors help to select an element to which you want to apply a style. For example below is a simple style called as 'intro' which applies red color to background of a HTML element.

```
<style>
.intro
{
background-color:red;
}
</style>
```

To apply the above "intro" style to div we can use the "class" selector as shown in the below figure.

```
<div class="intro">
<p>My name is Shivprasad koirala.</p>
<p>I write interview questions.</p>
</div>
```

How can you apply CSS style using ID value?

So let's say you have a HTML paragraph tag with id "mytext" as shown in the below snippet

```
<p id="mytext">This is HTML interview questions.</p>
```

You can create a style using "#" selector with the "id" name and apply the CSS value to the paragraph tag. So to apply style to "mytext" element we can use "#mytext" as shown in the below CSS code.

```
<style>
#mytext
```

```
{
background-color:yellow;
}
</style>
```

What is the use of column layout in CSS?

CSS column layout helps you to divide your text in to columns. For example consider the below magazine news which is one big text but we need to divide the same in to 3 columns with a border in between. That's where HTML 5 column layout comes to help.

Make no mistake about this — Shah Rukh Khan's hospitality is fantastic. When the superstar invites you home for a dinner party, you will be spoiled silly because he insists on personally taking care of his guests. If you land up unannounced and the gates of Mannat still open up for you, the food service may

not be that prompt, says SRK. According to him, the food order goes down to the kitchen based on the ground floor of his six-storey annex soon enough. How-ever, it takes a long time for the food trolley to come up to the floor on which he is entertaining. "Many a time the guests have already left," he laughs,

adding, "And then I hear the familiar sound of the trolley being wheeled in with all the food neatly laid out." Moral of the story: when you go to Mannat without prior notice, please be patient. The host doesn't wish to send you home hungry. It is just that the wooden trolley has a lot of ground to cover.

To implement column layout we need to specify the following:-

- How many columns we want to divide the text in to ?

To specify number of columns we need to us column-count. "webkit" and "moz-column" are needed for chrome and firefox respectively.

```
-moz-column-count:3; /* Firefox */
-webkit-column-count:3; /* Safari and Chrome */
column-count:3;
```

Can you explain some text effects in CSS 3?

Here the interviewer is expecting you to answer one of two text effects by CSS.Below are two effects which are worth noting.

Shadow text effect

```
.specialtext
{
text-shadow: 5px 5px 5px #FF0000;
```

}

Some text

What is local storage concept in HTML 5?

Many times we would like to store information about the user locally in the computer. For example let's say user has half-filled a long form and suddenly the internet connection breaks off. So the user would like you to store this information locally and when the internet comes back.He would like to get that information and send it to the server for storage.

Modern browsers have storage called as "Local storage" in which you can store this information.

What is the lifetime of local storage?

Local storage does not have a life time it will stay until either the user clear it from the browser or you remove it using JavaScript code.

What is the difference between local storage and cookies?

	Cookies	Local storage
Client side / Server side.	Data accessible both at client side and server side. Cookie data is sent to the server side with every request.	Data is accessible only at the local browser side. Server cannot access local storage until deliberately sent to the server via POST or GET.
Size	4095 bytes per cookie.	5 MB per domain.
Expiration	Cookies have expiration attached to it. So after that expiration the cookie and the cookie data get's deleted.	There is no expiration data. Either the end user needs to delete it from the browser or programmatically using JavaScript we need to remove the same.

What is session storage and how can you create one?

Session storage is same like local storage but the data is valid for a session. In simple words the data is deleted as soon as you close the browser.

To create a session storage you need to use "sessionStorage.variablename" . In the below code we have a created a variable called as "clickcount".

If you refresh the browser the count increases. But if you close the browser and start again the "clickcount" variable starts from zero.

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What is application cache in HTML5?

One of the most demanded things by end user is offline browsing. In other words if internet connection is not available page should come from browser cache i.e. offline and application cache helps you to achieve the same.

Application cache helps you to specify which files should be cached and not cached.