

1). What are the new tags added in HTML5?

Structural or Semantic Tag

- 1.<article> : it defines the independent or self-contained content of a webpage.
- 2.<aside> it defines the content which provide information about the main content.
- 3.<details>: it defines the additional information which only visible as per user demand.
- 4.<dialog> : it represents a dialog box or other interactive components.
- 5.<figcaption> : it defines caption for the <figure> element.
- 6.<figure> : it defines a self contained content, and referenced as a single unit.
- 7.<footer> : it represents the footer section or the webpage.
- 8.<header> : it defines the introductory or navigational content of the web pages.
- 9.<main> : it specify the main content of the html document.
- 10.<mark> : it represent the text which is highlited or marked for reference or nation purpose.
- 11.<nav> : it represents the section which contains navigation links.
- 12.<section> : it defines a generic section within an html document.
- 13.<summary> :it defines summary or caption for a <details> element which can be clicked to change the state of <details> element.
14. <time> : it defines data/time within an html document.
- 15.<wbr> : it specifies a line break opportunity. (where line break possible)

Form tags

- <datalist> : it represent predefined list for input <option> element.
- <output> : it is used a container element to rrepresent the output of a calculation or outcome of user action.

Graphics tag

<canvas> : it allows drawing graphics and animations via scripting.

<svg> : it is used to draw scalable vector graphics.

Media tag

<audio> : it defines sound content.

<embed> : it defines a container for external files/application/media.

<source> : it defines multiple media resources for the media elements.

<track> : it defines text tracks for <audio> and <video> files.

<video> : it defines video content within HTML document.

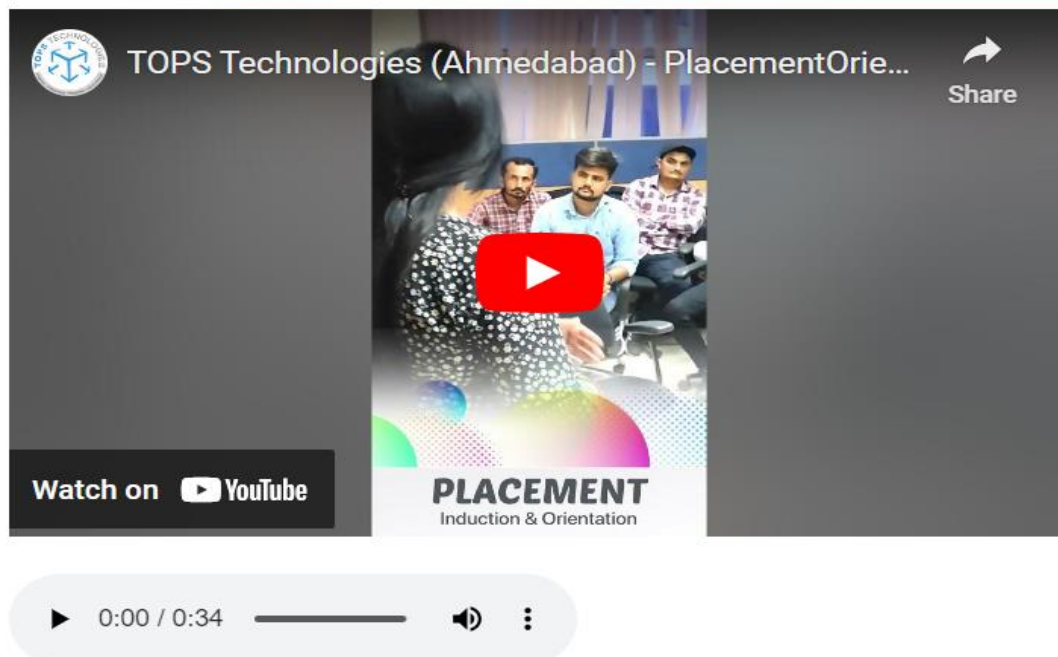
2). How to embed audio and video in webpage?

Create a new HTML file in the same directory, called index. html . Add <audio> and <video> elements to the page; make them display the default browser controls. Give both of them <source> elements so that browsers will find the audio format they support best and load it.

Example:

```
!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Assignment 1</title>
</head>
<body>
  <iframe width="560" height="315" src="https://www.youtube.com/embed/9A3yNJwduGc?si=8Ps8bzksPc11rQjo"
  title="YouTube video player" frameborder="0" allow="accelerometer; autoplay; clipboard-write;
  encrypted-media; gyroscope; picture-in-picture; web-share" allowfullscreen></iframe>
  <br>
  <br>
  <audio src="img/Shree ganeshay dheemahi (ek dantay) Ringtone _ ganesh chaturthi _
  RINGZONE_T8-N92gUSFc.mp3" controls autoplay ></audio>
</body>
</html>
```

Output:



3). Semantic element in HTML5?

HTML was originally created as a markup language to describe documents on the early internet. As the internet grew and was adopted by more people, its needs changed.

Where the internet was originally intended for sharing scientific documents, now people wanted to share other things as well. Very quickly, people started wanting to make the web look nicer.

Because the web was not initially built to be designed, programmers used different hacks to get things laid out in different ways. Rather than using the `<table></table>` to describe information using a table, programmers would use them to position other elements on a page.

As the use of visually designed layouts progressed, programmers started to use a generic "non-semantic" tag like `<div>`. They would often give these elements a class or id attribute to describe their purpose. For example, instead of `<header>` this was often written as `<div class="header">`.

The semantic elements added in HTML5 are:

- <article>
- <aside>
- <details>
- <figcaption>
- <figure>
- <footer>
- <header>
- <main>
- <mark>
- <nav>
- <section>
- <summary>
- <time>

4). Canvas and SVG tags

Canvas tag :

The <canvas> tag is used to draw graphics, on the fly, via scripting (usually JavaScript).

The <canvas> tag is transparent, and is only a container for graphics, you must use a script to actually draw the graphics.

Any text inside the <canvas> element will be displayed in browsers with JavaScript disabled and in browsers that do not support <canvas>.

Example:

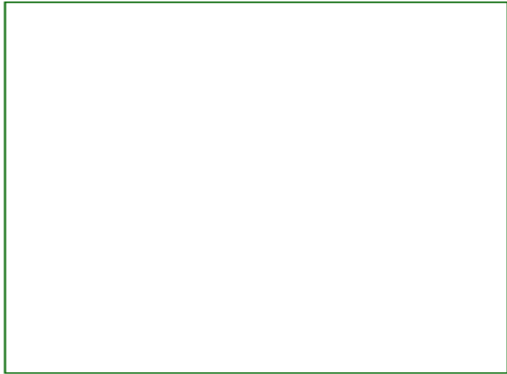
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<html>
<body>
<h1> Canvas</h1>

<canvas id="one" width="200" height="200" style="border:1px solid darkgreen"></canvas>

</body>
</html>
```

Output:

Canvas



Svg tag :

- SVG stands for Scalable Vector Graphics
- SVG is used to define graphics for the Web
- SVG is a W3C recommendation
- The HTML <svg> element is a container for SVG graphics.
- SVG has several methods for drawing paths, boxes, circles, text, and graphic images.

Example :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <svg width="200" height="200">
    <circle cx="50" cy="50" r="40"
      stroke="black" stroke-width="5" fill="red" />
  </svg>
</body>
</html>
```

Output :

