



STT-NF

Pemrograman Web

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4. HTML: Embed Multimedia

Audio, Video dan Animasi adalah konten yang dapat tertanam (embedded) pada web.

Pada bagian ini menjelaskan:

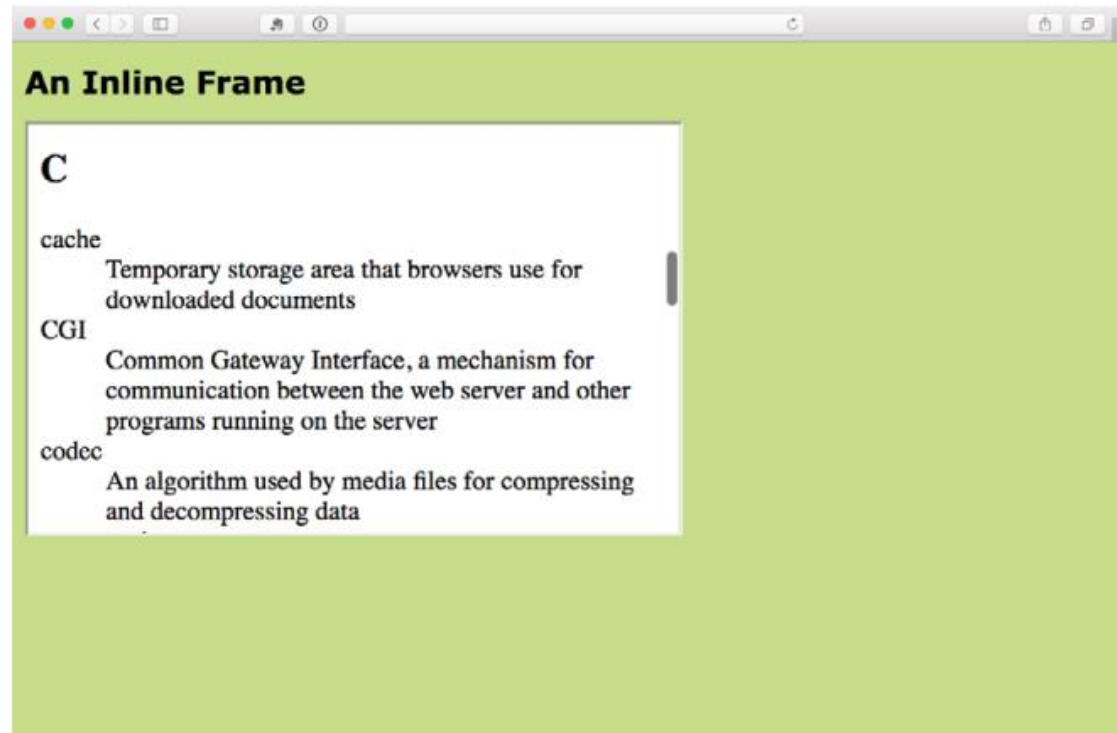
- Bagaimana melakukan penambahan konten tertanam menggunakan tag HTML5
- Format file apa yang pas dan optimal pada browser agar desain web tampil baik
- Isu apa yang dapat terjadi saat melakukan desain web menggunakan audio, video dan animasi.

- ❖ iframe – Inline Frame : elemen yang memungkinkan embed web resources (file: html, url, images, map, audio, video dan animasi) pada dokumen HTML.
- ❖ Penambahan iframe akan membuat kotak window (internal window) pada halaman web
- ❖ Atribut iframe:
 - ❖ **src**: sumber dokumen
 - ❖ **width** dan **height**: ukuran internal window
 - ❖ **frameborder** (0 : tidak ada border) , style="border:0"

IFrame

<h1>An Inline Frame</h1>

```
<iframe src="glossary.html" width="400" height="250" >  
  Read the <a href="glossary.html">glossary</a>.  
</iframe>
```



Embed Google Map



Object Embedded

`<object>...</object>`

Represents external resource

- Tag `<object>` digunakan untuk embed berbagai file multimedia, dengan atribut:
- Type: tipe multimedia
- Data: file sumber
- Width dan Height: ukuran object
- Tag `<param>` berisi setingan untuk memainkan file multimedia

`<param>`

Parameters of an object

```
<object type="video/quicktime" data="movies/hekboy.mov" width="320"
height="256">
  <param name="autostart" value="false">
  <param name="controller" value="true">
</object>
```

Dukungan browser : video

TABLE 10-1. *Video support in desktop and mobile browsers (as of 2017)*

Format	Type	IE	MS Edge	Chrome	Firefox	Safari	Opera	Android	iOS Safari
MP4 (H.264)	video/mp4 mp4 m4v	9.0+	12+	4+	Yes*	3.2+	25+	4.4+	3.2+
WebM (VP8)	video/webm webm webmv	–	–	6+	4.0+	–	15+	2.3+	–
WebM (VP9)	video/webm webm webmv	–	14+	29+	28+	–	16+	4.4+	–
Ogg Theora	video/ogg ogv	–	–	3.0+	3.5+	–	13+	2.3+	–

** Firefox version varies by operating system.*

Dukungan browser : audio

TABLE 10-2. *Audio support in current browsers (as of 2017)*

Format	Type	IE	MS Edge	Chrome	Firefox	Opera	Safari	iOS Safari	Android
MP3	audio/mpeg mp3	9.0+	12+	3.0+	22+	15+	4+	4.1	2.3+
WAV	audio/wav or audio/wave	–	12+	8.0+	3.5+	11.5+	4+	3.2+	2.3+
Ogg Vorbis	audio/ogg ogg oga	–	–	4.0+	3.5+	11.5+	–	–	2.3+
MPEG-4/AAC	audio/mp4 m4a	11.0+	12+	12.0+	–	15+	4+	4.1+	3.0+
WebM/Vorbis	audio/webm webm	–	–	6.0+	4.0+	11.5+	–	–	2.3.3+
WebM/Opus	audio/webm webm	–	14+	33+	15+	20+	–	–	–

Embed file video pada halaman web

```
<video width="320" height="240" controls>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogv" type="video/ogg">
  Your browser does not support the video tag.
</video>
```

Format File
yang disupport:

Browser	MP4	WebM	Ogg
Edge	YES	YES	YES
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	YES	NO
Opera	YES	YES	YES



Video : Atribut

video	Embeds a video player on the page
<code>src="URL"</code>	Address of the resource
<code>crossorigin="anonymous use-credentials"</code>	How the element handles requests from other origins (servers)
<code>poster="URL"</code>	The location of an image file that displays as a placeholder before the video begins to play
<code>preload="auto none metadata"</code>	Hints how much buffering the media resource will need
<code>autoplay</code>	Indicates the media can play as soon as the page is loaded
<code>loop</code>	Indicates the media file should start playing again automatically once it reaches the end
<code>muted</code>	Disables the audio output
<code>controls</code>	Indicates the browser should display a set of playback controls for the media file
<code>width="number"</code>	Specifies the horizontal dimension of the video player in pixels
<code>height="number"</code>	Specifies the vertical dimension of the video player in pixels

`<audio>...</audio>`

Adds an audio file to the page

`<p>Click on the play button to play a sound:</p>`

`<audio controls>`

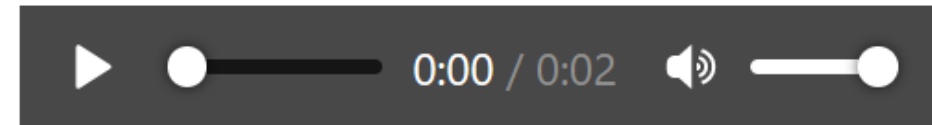
`<source src="horse.ogg" type="audio/ogg">`

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

Your browser does not support the audio element.

`</audio>`

Click on the play button to play a sound:



Format File
yang disupport:

Browser	MP3	WAV	OGG
Edge / IE	YES	YES*	YES*
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	YES	NO
Opera	YES	YES	YES

*From Edge 79

Element and Attributes	Description
audio	Embeds an audio player on the page
src="URL"	Address of the resource
crossorigin="anonymous use-credentials"	How the element handles requests from other origins (servers)
preload="auto none metadata"	Indicates how much the media resource should be buffered on page load
autoplay	Indicates the media can play as soon as the page is loaded
loop	Indicates the media file should start playing again automatically once it reaches the end
muted	Disables the audio output
controls	Indicates the browser should display a set of playback controls for the media file

Elemen HTML5 untuk area gambar menggunakan kumpulan fungsi JavaScript untuk membuat garis, bentuk, isi, animasi dan fitur lainnya.

```
<h1>The canvas element</h1>
```

```
<canvas id="myCanvas">Your browser does not support the canvas  
tag.</canvas>
```

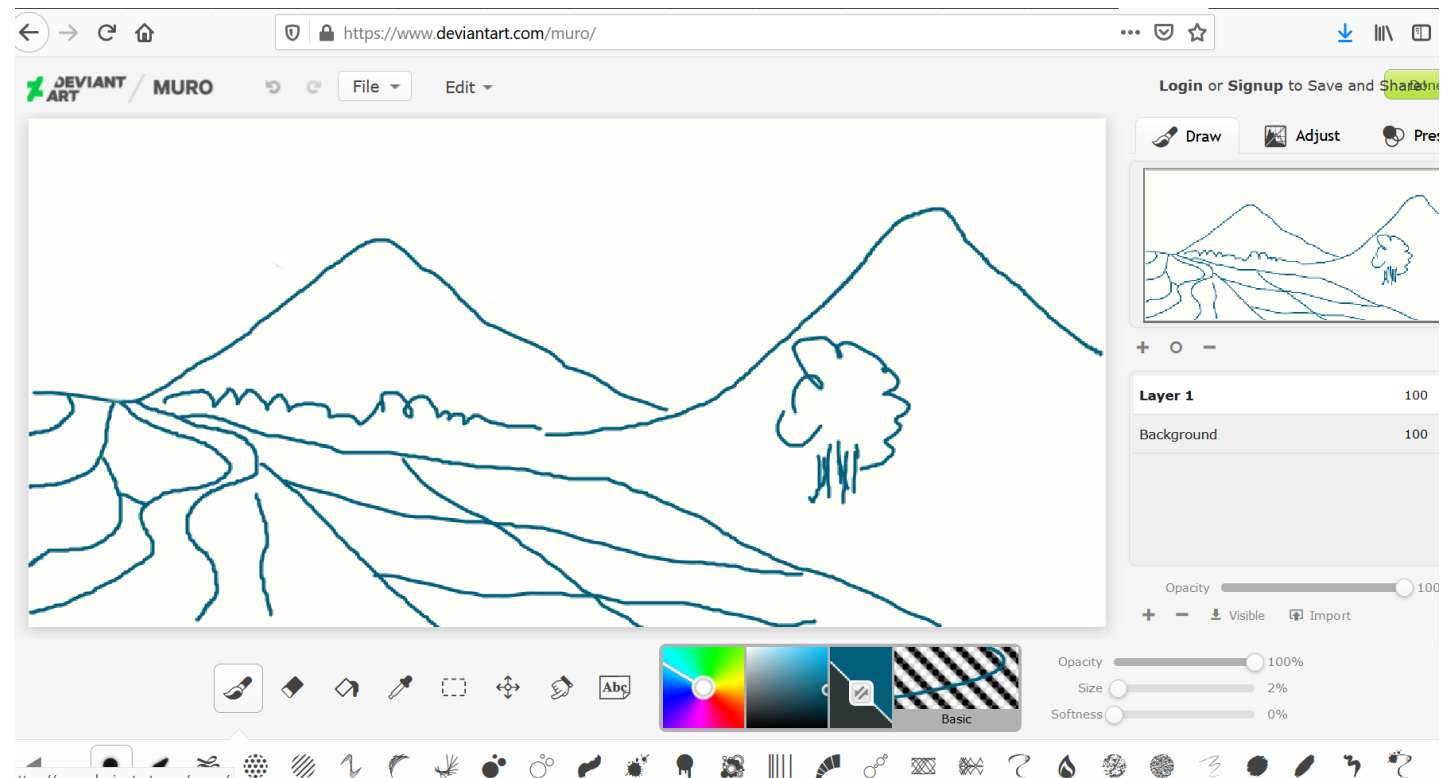
```
<script>  
var c = document.getElementById("myCanvas");  
var ctx = c.getContext("2d");  
ctx.fillStyle = "#FF0000";  
ctx.fillRect(0, 0, 80, 100);  
</script>
```

The canvas element



Canvas - website

<https://alteredqualia.com/canvasmol/>
<https://www.deviantart.com/muro/>



5. HTML5 Layout

HTML5 Layout Element



<header> : definisikan bagian dari header dokumen

<nav> : berisi kumpulan dari navigasi link

<section>: definisikan bagian dokumen

<aside> : definisikan bagian samping dari dokumen, seperti sidebar menu

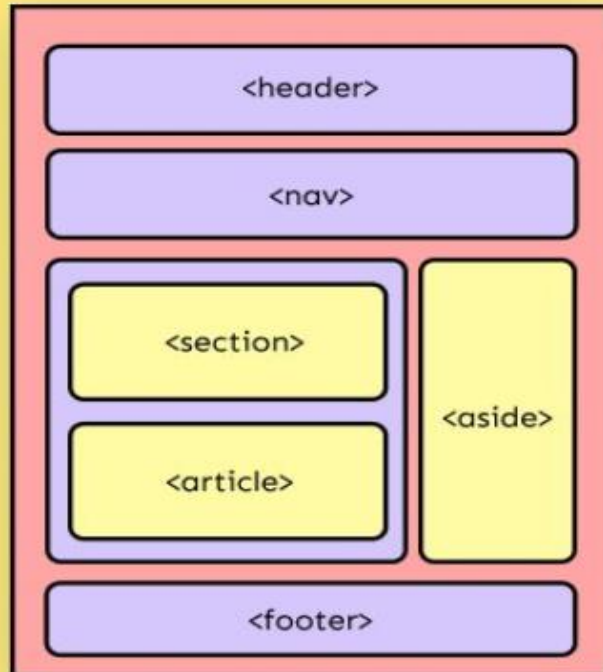
<article>: definisikan sebuah konten bebas

<footer> : bagian bawah (footer) dokumen

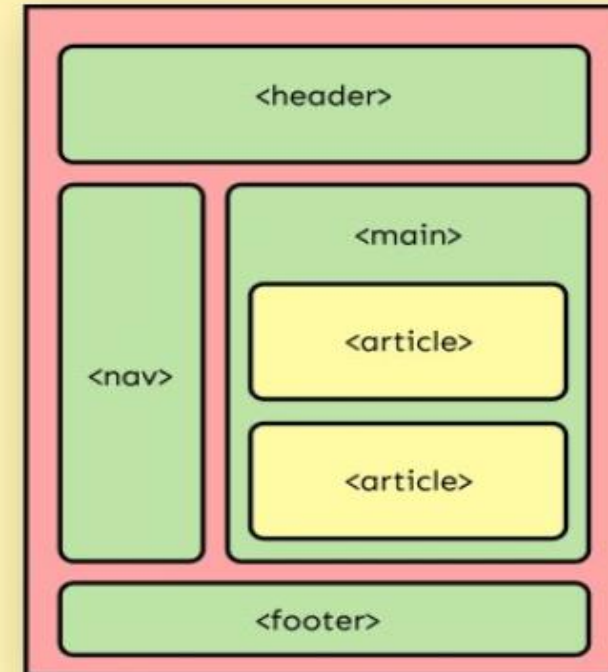
<details>: konten detail tambahan yang dapat di buka/tutup user

SEMANTIC HTML - BLOG

SEMANTIC ELEMENTS IN HTML



SEMANTIC BLOG STRUCTURE



@eyeshreya

Header

Navigation

Main content

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem.

Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, tellus. Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum. Aenean imperdiet.

Aside

Aside 2

Footer



```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>
<header>
<h1>myweb.com</h1></header>
<nav>...</nav>
<article>
  <section>
  </section>
  <section>
  </section>
</article>
<aside>..</aside>
<footer>...</footer>
</body>
</html>
```

- HTML5 Layout digunakan untuk membangun web berisi artikel / berita seperti: blog, wiki
- Pada implementasi HTML5 Layout tag akan menggunakan CSS

Contoh :

```
<h1>Ben's site</h1>
<section>
  <h1>Ben's blog</h1>
  <p>All about what I do</p>
</section>
<article>
  <header>
    <h1>A post about something</h1>
    <p>Trust me this is a great read</p>
    <p>No, not really</p>
    <p>See. Told you.</p>
  </header>
</article>
```

Ben's site

Ben's blog

All about what I do

A post about something

Trust me this is a great read

No, not really

See. Told you.

Tugas Praktikum 4

- Desain website profil anda, dengan menggunakan Tag HTML5 Layout, konten multimedia dan Tag HTML yang telah anda pelajari seperti tampilan Gambar 4.1
- Check Kode Program anda dengan validator HTML5 <http://validator.w3.org>, pastikan tidak ada error !!

Gambar 4.1

