

`<!DOCTYPE html>`

HTML

`<meta charset="utf-8">`

`<title></title>`

`<head></head>`

`<body>`

`<h1></h1>`

`<h4></h4>`

`<h2></h2>`

`<h5></h5>`

`<h3></h3>`

`<h6></h6>`

`<p></p>`

`</body>`



APPLICATIONS OF HTML

Web pages development

Navigating the internet

Embedding images and videos

Client-side storage

Game development

Data entry support

Interacting with native APIs

Offline capabilities

- HTML (HyperText Markup Language) je osnovni jezik za izradu web stranica. To je jezik koji se koristi za strukturu i sadržaj web stranica, omogućavajući pretraživačima da interpretiraju i prikažu informacije.

. Osnovna struktura HTML dokumenta

- `<!DOCTYPE html>`
- `<html>`
- `<head>`
- `<title>Naslov stranice</title>`
- `</head>`
- `<body>`
- `<h1>Dobrodošli na moju stranicu</h1>`
- `<p>Ovo je paragraf.</p>`
- `</body>`
- `</html>`

- `<!DOCTYPE html>` oznaka definiše tip dokumenta i verziju HTML-a.
- `<html>` Početak HTML dokumenta.
- `<head>`: Deo dokumenta koji sadrži informacije o dokumentu (meta podaci, naslov, stilovi).
- `<title>` Naslov stranice koji se prikazuje na kartici pretraživača.
- `<body>` Glavni sadržaj stranice.

Osnovni HTML elementi

- **Zaglavlja:** <h1>, <h2>, <h3>, ... <h6> –označavanje naslova.
- <h1> je najvažniji, dok je <h6> najmanje važan.
- **Paragrafi:** <p> – koristi se za označavanje tekstualnih paragrafa.
- **Linkovi:** Tekst linka – koristi se za kreiranje hyperlinkova.
- **Slike:** – koristi se za umetanje slika.
- **Liste**

Atributi

- href, src, alt, title.....
- Atributi se upisuju unutar oznake, na primer:
Poseti stranicu.

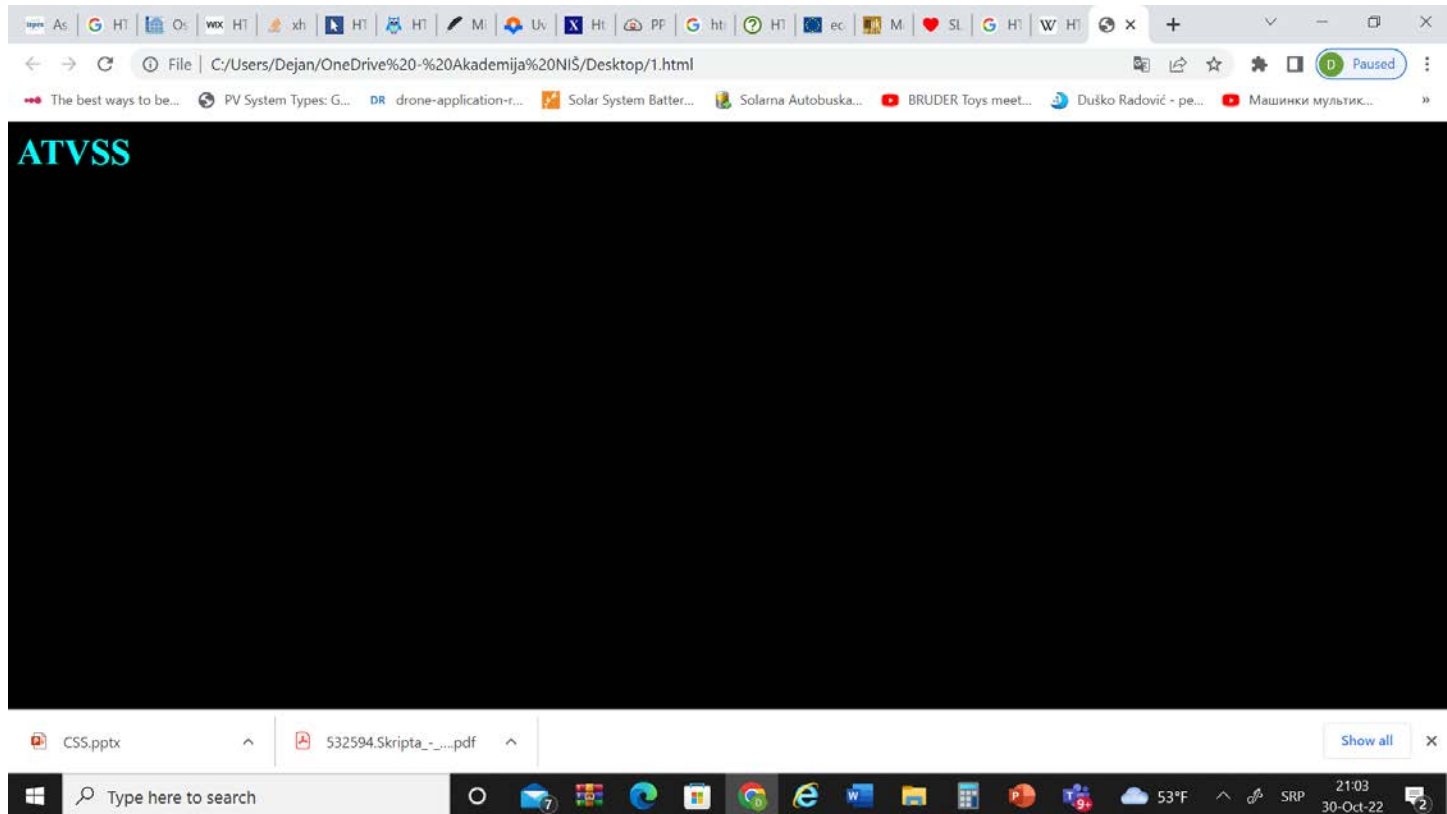
Forme

- HTML forme se koriste za prikupljanje podataka od korisnika

```
<form action="url_za_obradu"
method="post">
  <label for="ime">Ime:</label>
  <input type="text" id="ime" name="ime">
  <input type="submit" value="Pošalji">
</form>
```

- **<form>**: Oznaka koja obuhvata sve elemente forme.
- **<input>**: Koristi se za kreiranje različitih vrsta input polja (tekst, dugme, radio dugmad, itd.).
- **<label>**: Oznaka koja objašnjava input polja.

HTML (Hypertext Markup Language)



SGML

STANDARD
GENERALIZED
MARKUP
LANGUAGE

- HTML je nastao uprošćavanjem SGML (Standard Generalized Markup Language, standardizovani uopšteni jezik za označavanje) standarda sa svrhom opisa dokumenta koji se objavljuju na WEB-u

HTML (Hypertext Markup Language)

- **File Extensions:**
HTML, HTM
- **xHTML**
- **<http://www.w3.org/TR/xhtml1/>**

SPECIFIKACIJA

- [HTML 2.0](#) – (RFC 1996)
- [HTML 3.2](#) – 14. januar 1997,
- [HTML 4.0](#) – 18. decembar 1997,
- [HTML 4.01](#) (manje izmene) – 24. decembar 1999,
- [ISO/IEC 15445:2000](#) („ISO HTML“, bazirano na HTML 4.01 Strict) – 15. maj 2000.
- [HTML 5](#) – 22. januar 2008

SINTAKSA

- **Sintaksa HTML-a**
- Sintaksa HTML-a odnosi se na **pravila pisanja HTML koda**, odnosno način na koji se elementi formiraju.
Osnovna struktura HTML dokumenta sadrži **oznake (tagove)** koje okružuju sadržaj.

`<p>Ovo je paragraf teksta.</p>`

- `<p>` je **početna oznaka (opening tag)**
- `</p>` je **završna oznaka (closing tag)**
- Tekst između njih je **sadržaj elementa**

Semantika

HTML5 uvodi semantičke elemente koji pomažu pretraživačima i programerima da razumeju strukturu stranice. Neki od ovih elemenata su:

- <header>: Za zaglavlje stranice.
- <nav>: Za navigaciju.
- <main>: Glavni sadržaj stranice.
- <article>: Samostalni sadržaj.
- <section>: Odeljak unutar stranice.
- <footer>: Donji deo stranice.

STRUKTURA DOKUMENTA

HTML dokumenti se sastoje iz dva osnovna dela: onog koji opisuje dokument i način na koji treba da bude predstavljen i dela koji predstavlja sadržaj dokumenta. Informacije koje opisuju dokument se smeštaju između oznaka za zaglavlje dokumenta `<head>`, `</head>`.

U okviru zaglavlja postavlja se naslov dokumenta između oznaka `<title>`, `</title>`, dok se sam sadržaj smešta između oznaka `<body>`, `</body>`.

Ova tri elementa zajedno sa oznakama `<html>`, `</html>` čine minimalnu strukturu HTML dokumenta

- `<!DOCTYPE html>`
`<html>`
`<body>`

`<h1>My First Heading</h1>`
`<p>My first paragraph.</p>`

`</body>`
`</html>`

Odnos velikih i malih slova

`<P>` je isto kao i `<p>`.

W3C preporučuje primenu malih slova

xHTML striktno zahteva

HTML Tag Reference

Ugnježdjeni elementi

- Elementi mogu da sadrže druge elemente

- `<!DOCTYPE html>`

`<html>`

`<body>`

`<h1>My First Heading</h1>`

`<p>My first paragraph.</p>`

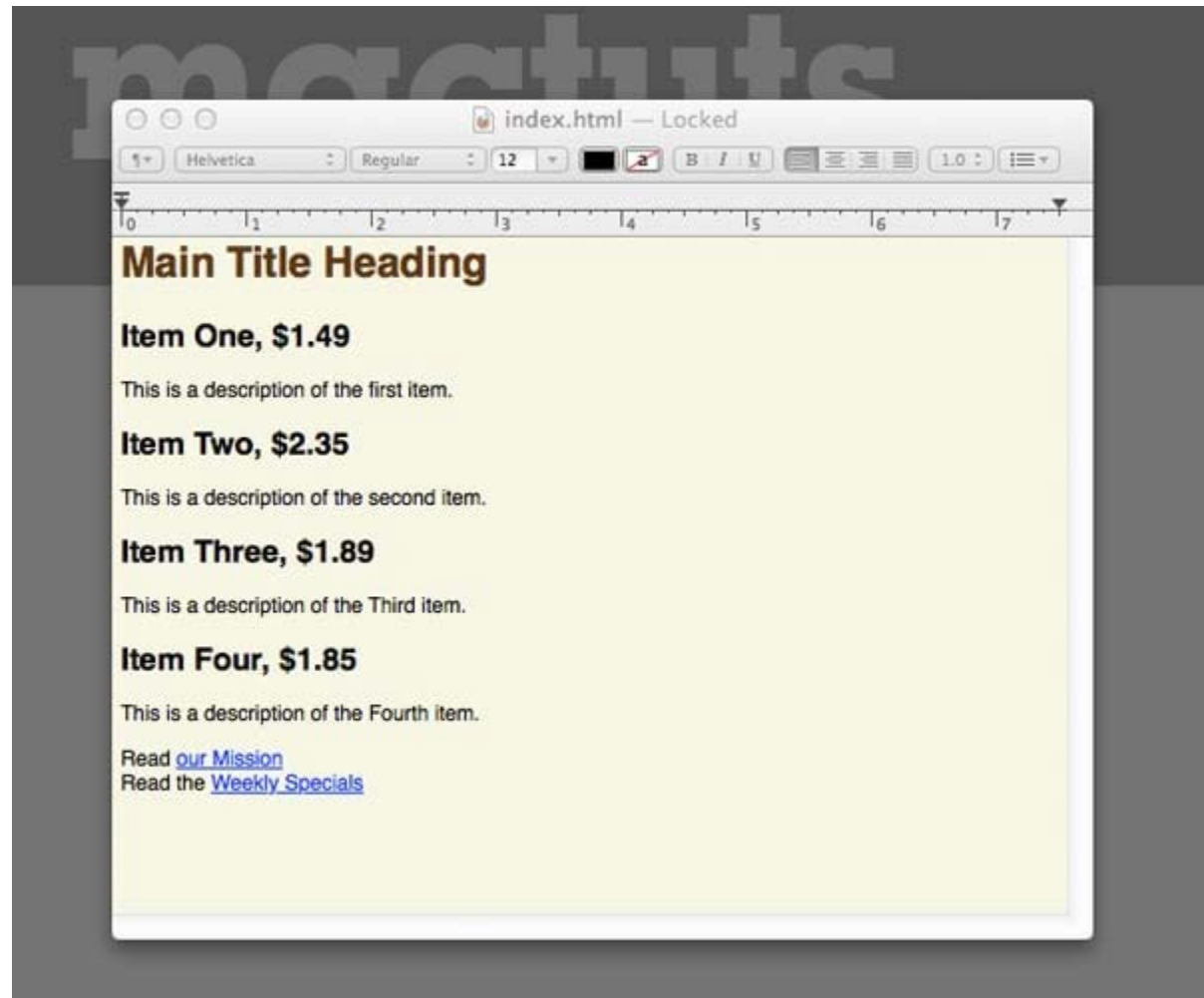
`</body>`

`</html>`

`<html>` element definise
ceo kod.
`<html> ..... </html>.`
unutar `<html>` elemente je
`<body>` element, zatim
heading pa paragraf itd.

HTML editori

- NOTEPAD
- TextEdit (Mac)



HTML elementi

- `<tagname>Content goes here...</tagname>`
- `<h1>Naslov</h1>`
- `<p>paragraph.</p>`

Start tag	Element content	End tag
<code><h1></code>	Naslov	<code></h1></code>
<code><p></code>	paragraf.	<code></p></code>
<code>
</code>	<i>none</i>	<i>none</i>

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

```
<h1>Heading 1</h1>
```

```
<h2>Heading 2</h2>
```

```
<h3>Heading 3</h3>
```

```
<h4>Heading 4</h4>
```

```
<h5>Heading 5</h5>
```

```
<h6>Heading 6</h6>
```

```
<h1 style="font-size:60px;">Heading 1</h1>
```

HTML Paragraphs

- `<p>`
- Počinje u novom redu
- Pregledač automatski dodaje marginu pr ei
posle paragrafa

```
<!DOCTYPE html>
<html>
<body>

<p>This is a paragraph.</p>
<p>This is a paragraph.</p>
<p>This is a paragraph.</p>

</body>
</html>
```

This is a paragraph.
This is a paragraph.
This is a paragraph.

HTML Horizontalna pravila

`<hr>` tag definiše tematski break u okviru HTML stranice

`hr>` element koristi se za razdvajanje sadržaja HTML stranice

```
<!DOCTYPE html>
<html>
<body>

<h1>This is heading 1</h1>
<p>This is some text.</p>
<hr>

<h2>This is heading 2</h2>
<p>This is some other text.</p>
<hr>

<h2>This is heading 2</h2>
<p>This is some other text.</p>

</body>
</html>
```

This is heading 1

This is some text.

This is heading 2

This is some other text.

This is heading 2

This is some other text.

Linije prekida

HTML `<br>` element definiše prekid u kodu.

```
<!DOCTYPE html>
<html>
<body>

<p>This is<br>a paragraph<br>with line
breaks.</p>

</body>
</html>
```

This is
a paragraph
with line breaks.

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p>In HTML, spaces and new lines are  
ignored:</p>
```

```
<p>
```

My Bonnie lies over the ocean.

My Bonnie lies over the sea.

My Bonnie lies over the ocean.

Oh, bring back my Bonnie to me.

```
</p>
```

In HTML, spaces and new lines are ignored:

My Bonnie lies over the ocean. My Bonnie lies
over the sea. My Bonnie lies over the ocean.
Oh, bring back my Bonnie to me.

HTML `<pre>` Element

```
!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p>The pre tag preserves both spaces and line  
breaks:</p>
```

```
<pre>
```

```
  My Bonnie lies over the ocean.
```

```
  My Bonnie lies over the sea.
```

```
  My Bonnie lies over the ocean.
```

```
  Oh, bring back my Bonnie to me.
```

```
</pre>
```

```
</body>
```

```
</html>
```

The pre tag preserves both spaces and line breaks:

My Bonnie lies over the ocean.

My Bonnie lies over the sea.

My Bonnie lies over the ocean.

Oh, bring back my Bonnie to me.

HTML Tag Reference

Tag	Opis
<u><p></u>	Definiše paragraf
<u><hr></u>	Definišu se tematske promene
<u>
</u>	prekid
<u><pre></u>	Preformatizovan sadržaj

HTML stilovi

HTML **style** attribute koriste se za stilizovanje elemenata kao što su boja, veličina, font

```
<!DOCTYPE html>
<html>
<body style="background-color:powderblue;">

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

This is a heading
This is a paragraph.

```
<body>
```

```
<h1 style="background-  
color:powderblue;">This is a  
heading</h1>
```

```
<p style="background-  
color:tomato;">This is a  
paragraph.</p>
```

```
</body>
```

This is a heading
This is a paragraph.

```
<!DOCTYPE html>
<html>
<body>

<h1 style="color:blue;">This is a heading</h1>
<p style="color:red;">This is a paragraph.</p>

</body>
</html>
```

This is a heading
This is a paragraph.

```
<!DOCTYPE html>
<html>
<body>

<h1 style="text-align:center;">Centered
Heading</h1>
<p style="text-align:center;">Centered
paragraph.</p>

</body>
</html>
```

Centered Heading
Centered paragraph.

HTML Text Format

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p><b>This text is bold</b></p>
```

```
<p><i>This text is italic</i></p>
```

```
<p>This is<sub> subscript</sub> and  
<sup>superscript</sup></p>
```

```
</body>
```

```
</html>
```

This text is bold

This text is italic

This is_{subscript} and^{superscript}

- - Bold text
- - Important text
- <i> - Italic text
- - Emphasized text
- <mark> - Marked text
- <small> - Smaller text
- - Deleted text
- <ins> - Inserted text
- <sub> - Subscript text
- <sup> - Superscript text

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p>This text is normal.</p>
```

```
<p><i>This text is  
italic.</i></p>
```

```
</body>
```

```
</html>
```

This text is normal.
This text is italic.

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

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

```
</body>
```

```
</html>
```

Do not forget to buy milk today.

HTML navodnici i citati

`<blockquote>`, `<q>`, `<abbr>`, `<address>`, `<cite>`, and `<bdo>`

```
!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p>Here is a quote from WWF's website:</p>
```

```
<blockquote
```

```
  cite="http://www.worldwildlife.org/who/index.html">
```

For 50 years, WWF has been protecting the future of nature.

The world's leading conservation organization, WWF works in 100 countries and is supported by

1.2 million members in the United States and close to 5 million globally.

```
</blockquote>
```

```
</body>
```

```
</html>
```

Here is a quote from WWF's website:

For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.

HTML Comment Tag

- `<!-- Write your comments here -->`

```
<!DOCTYPE html>
<html>
<body>

<!-- This is a comment -->
<p>This is a paragraph.</p>
<!-- Comments are not displayed in the
browser -->

</body>
</html>
```

This is a paragraph.

Hide Content

```
<!DOCTYPE html>
<html>
<body>

<p>This is a paragraph.</p>

<!-- <p>This is another paragraph </p> -->

<p>This is a paragraph too.</p>

</body>
</html>
```

This is a paragraph.
This is a paragraph too.

HTML boje



```
<!DOCTYPE html>
<html>
<body>

<h1 style="background-
color:Tomato;">Tomato</h1>
<h1 style="background-
color:Orange;">Orange</h1>
<h1 style="background-
color:DodgerBlue;">DodgerBlue</h1>
<h1 style="background-
color:MediumSeaGreen;">MediumSeaGreen</
h1>
<h1 style="background-
color:Gray;">Gray</h1>
<h1 style="background-
color:SlateBlue;">SlateBlue</h1>
<h1 style="background-
color:Violet;">Violet</h1>
<h1 style="background-
color:LightGray;">LightGray</h1>

</body>
</html>
```



HTML Styles - CSS

- **Inline** - primenom `style` attribute unutar HTML
- **Internal** - primenom `<style>` elementa u `<head>` delu
- **External** - primenom `<link>` element za povezivanje sa spoljašnjim
- CSS fajolom

Inline CSS

```
<!DOCTYPE html>
<html>
<body>

<h1 style="color:blue;">A Blue Heading</h1>

<p style="color:red;">A red paragraph.</p>

</body>
</html>
```

A Blue Heading
A red paragraph.

Internal CSS

- <!DOCTYPE html>
- <html>
- <head>
- <style>
- body {background-color: powderblue;}
- h1 {color: blue;}
- p {color: red;}
- </style>
- </head>
- <body>
- <h1>This is a heading</h1>
- <p>This is a paragraph.</p>
- </body>
- </html>

This is a heading
This is a paragraph.

External CSS

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

This is a heading
This is a paragraph.

HTML Links -

HTML **<a>** tag za hiperveze

```
<!DOCTYPE html>
<html>
<body>

<h1>HTML Links</h1>

<p><a
href="https://www.w3schools.com/">Visit
W3Schools.com!</a></p>

</body>
</html>
```

HTML Links
[Visit W3Schools.com!](https://www.w3schools.com/)

HTML i fotografije

`<img>`

- src – specificira putanju do slike
- alt – specificira opisni tekst

```
<!DOCTYPE html>
<html>
<body>

<h2>HTML Image</h2>


</body>
</html>
```



format	File Format	File Extension
APNG	Animated Portable Network Graphics	.apng
GIF	Graphics Interchange Format	.gif
ICO	Microsoft Icon	.ico, .cur
JPEG	Joint Photographic Expert Group image	.jpg, .jpeg, .jfif, .pjpeg, .jpp
PNG	Portable Network Graphics	.png
SVG	Scalable Vector Graphics	.svg

Image Maps

<map>

```
<!DOCTYPE html>
<html>
<body>
<h2>Image Maps</h2>
<p>Click on the computer, the phone, or the cup of coffee to go to a new
page and read more about the topic:</p>

<map name="workmap">
  <area shape="rect" coords="34,44,270,350" alt="Computer"
href="computer.htm">
  <area shape="rect" coords="290,172,333,250" alt="Phone"
href="phone.htm">
  <area shape="circle" coords="337,300,44" alt="Cup of coffee"
href="coffee.htm">
</map>
</body>
</html>
```

Image Maps

Click on the computer, the phone, or the cup of coffee to go to a new page and read more about the topic:



The Image

- ``

Create Image Map

`<map>`

`<map name="workmap">`

HTML Background Images

`<p style="background-image: url('img_girl.jpg');">`

```
<!DOCTYPE html>
<html>
<body>
<h2>Background Image</h2>
<p>A background image for a p element:</p>
<p style="background-image: url('img_girl.jpg');">
You can specify background images<br>
for any visible HTML element.<br>
In this example, the background image<br>
is specified for a p element.<br>
By default, the background-image<br>
will repeat itself in the direction(s)<br>
where it is smaller than the element<br>
where it is specified. (Try resizing the<br>
browser window to see how the<br>
background image behaves.
</p>
</body>
</html>
```

Background Image

A background image for a p element:

You can specify background images for any visible HTML element. In this example, the background image is specified for a p element. By default, the background-image will repeat itself in the direction(s) where it is smaller than the element where it is specified. (Try resizing the browser window to see how the background image behaves.)



```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('img_girl.jpg');
}
</style>
</head>
<body>

<h2>Background Image</h2>

<p>By default, the background image will
repeat itself if it is smaller than the element
where it is specified, in this case the body
element.</p>

</body>
</html>
```

Browser tabs: w3schools.com/html/tryit.asp?filename=tryhtml_images_background5

Address bar: w3schools.com/html/tryit.asp?filename=tryhtml_images_background5

Navigation icons: Home, HTML, HTML Images, Background images

Tryit: HTML background image on body

Run >

Result Size: 838 x 507

Get your own website

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url('img_girl.jpg');
}
</style>
</head>
<body>

<h2>Background Image</h2>

<p>By default, the background image will repeat itself if it is smaller than the element where it is specified, in this case the body element.</p>

</body>
</html>
```

Background Image

By default, the background image will repeat itself if it is smaller than the element where it is specified, in this case the body element.

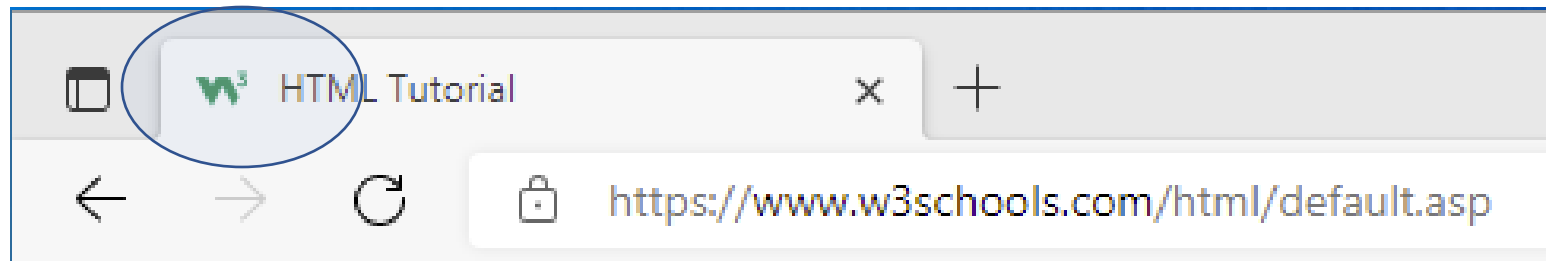


Taskbar: CSS.pptx, 532594.Skripta_...pdf, Show all

System tray: 60°F, 31-Oct-22, 19:07

HTML Favicon

- Favicon su male slike veličine 16x16 piksela (retko mogu biti 32x32 px) koje služe za vizuelnu identifikaciju brenda i nalaze se na levoj strani URL adrese.



<link>

```
<!DOCTYPE html>
<html>
<head>
  <title>My Page Title</title>
  <link rel="icon" type="image/x-
icon" href="/images/favicon.ico">
</head>
<body>

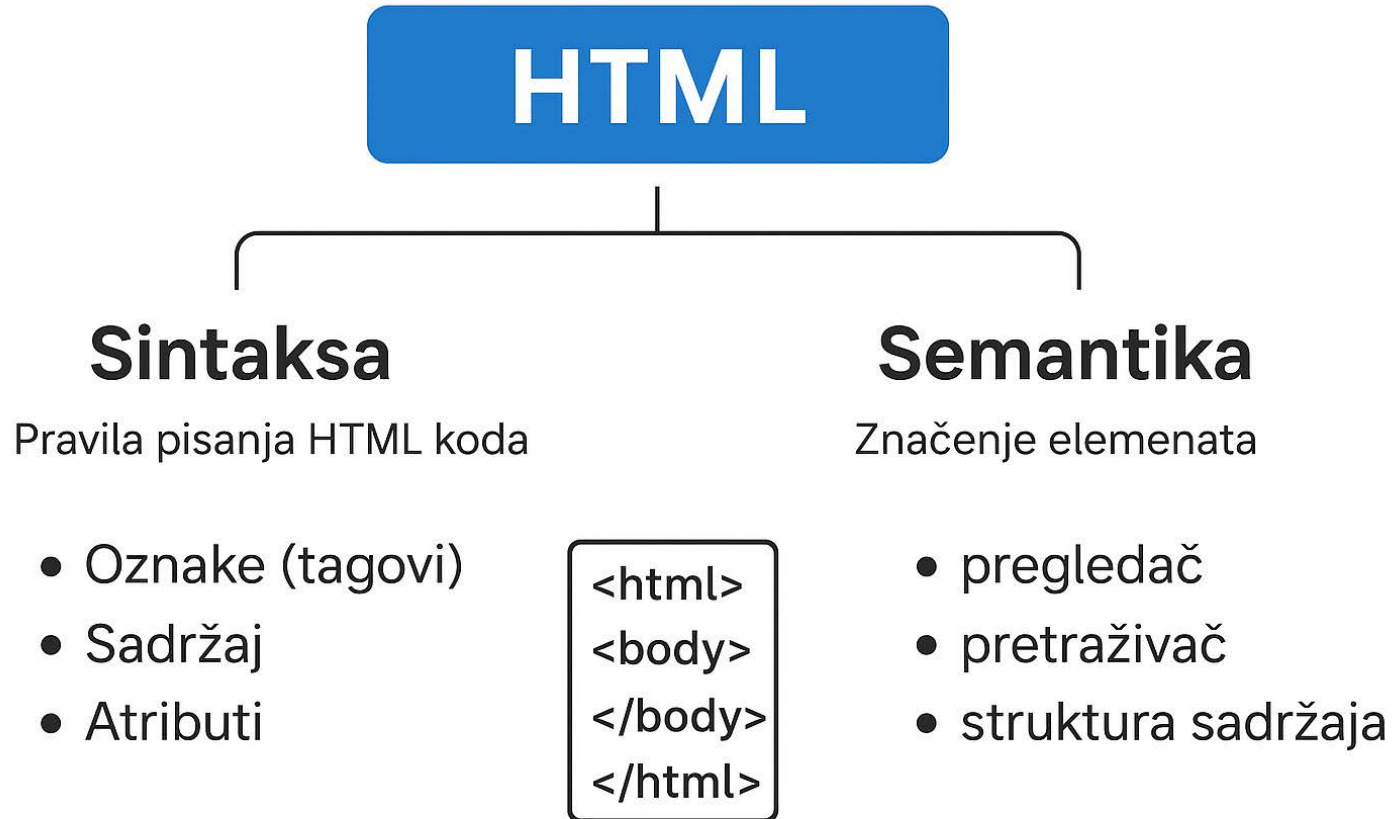
<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

Favicon File Format Support

Browser	ICO	PNG	GIF	JPEG	SVG
Edge	Yes	Yes	Yes	Yes	Yes
Chrome	Yes	Yes	Yes	Yes	Yes
Firefox	Yes	Yes	Yes	Yes	Yes
Opera	Yes	Yes	Yes	Yes	Yes
Safari	Yes	Yes	Yes	Yes	Yes

PODSETNIK



Osnovna hijerarhija

HTML dokument je stabla-struktura počevši od deklaracije tipa dokumenta (`<!DOCTYPE html>`) i korenskog elementa `<html>` koji sadrži dve glavne sekcije:

1. `<head>` (meta-podatci, stilovi, skripte koje se učitavaju pre sadržaja)
2. `<body>` (vidljivi sadržaj stranice).

Šta ide u <head> ?

U <head> stavljamo:

- <meta charset="utf-8"> (kodiranje),
- <meta name="viewport"> (responsivnost na mobilnim uređajima),
- <title>,
- linkove ka CSS fajlovima (<link rel="stylesheet">),
- favikon,
- kritične skripte ili JSON-LD za SEO.

Redosled je važan — stilovi prije renderovanja, te meta tagovi na početku.

<body> struktura

<header> (zaglavlje, navigacija),
<nav> (glavni meni),
<main> (glavni sadržaj — samo jedan po strani),
<section> (logička sekcija),
<article> (samostalni članak/post),
<aside> (bočni sadržaj, sidebar),
<footer> (podnožje).

ka Semantika poboljšava čitljivost, SEO i pristupačnost.

Forms, media i interaktivnost

- Forme koriste `<form>`, sa pravilnim label za svaki input (važno za pristupačnost).
- Multimedija: `<img>` sa alt, `<picture>` za responzivnu sliku, `<video>` i `<audio>` sa kontrolama. Skripte stavljaš pre zatvaranja `</body>` ili koristi `defer/async` u `<head>` da ne blokiraju prikaz.

Pristupačnost (a11y) i SEO

Osnovne prakse:

- upotreba naslova (<h1>—<h6>) hijerarhijski,
- alt za slike,
- semantički elementi,
- odgovarajući kontrast boja,
- ARIA atributi samo kada je semantika nedovoljna.

Za SEO:

- jasni <title>,
- meta description,
- strukturirani podaci (JSON-LD),
- semantička struktura sadržaja
- brza učitavanja.

Responsivni dizajn i performanse

Obavezno:

- `<meta name="viewport" content="width=device-width, initial-scale=1">`.
- Koristiti fleksibilne jedinice (% , rem),
- CSS grid/flexbox, lazily-load slike (loading="lazy").
- Minifikacija CSS/JS
- upotreba cache-header-e i CDN za veće performanse.

Korisni linkovi

<http://www.w3.org/MarkUp/>
<http://www.w3.org/Style/CSS/>
http://www.w3schools.com/css/css_intro.asp
<http://www.php.net>
<http://www.perl.com/>
<http://www.perl.org>
<http://www.perl.com/CPAN-local/README.html>
<http://perl.apache.org>
http://www.modssl.org/docs/2.8/ssl_intro.html
<http://web.mit.edu/kerberos/www/>
<http://www.mysql.com>
<http://www.w3.org/TR/xslt>
<http://www.xml.com/pub/a/2000/08/holman/s1.html?page=2>
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