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# Introduction to HTML

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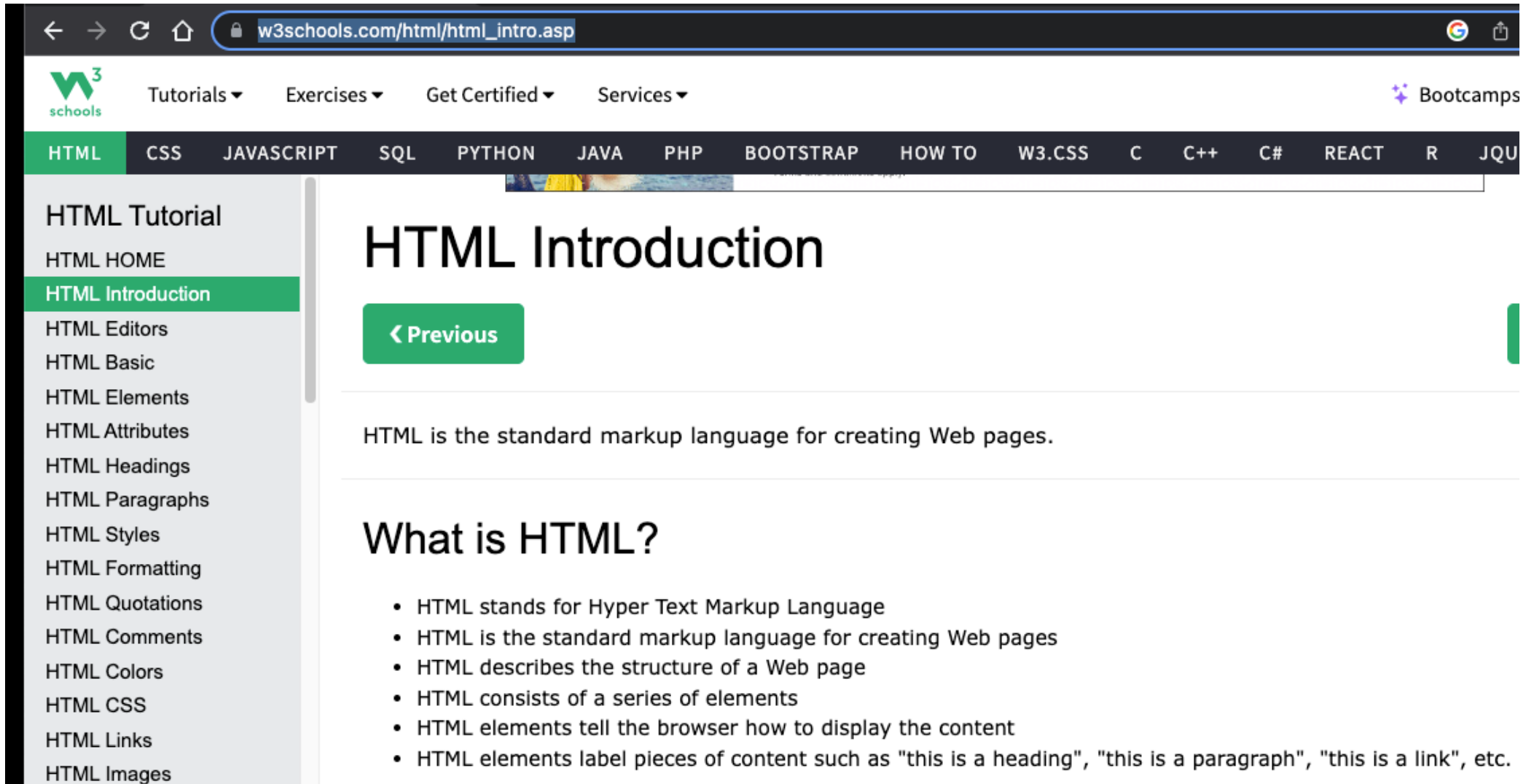
# HTML (Hypertext Markup Language)

- HTML è un linguaggio per la descrizione del contenuto e della struttura di pagine web
- HTML è un linguaggio di markup: usa dei tag per
  - Specificare la struttura della pagina (titoli, sezioni, paragrafi, ...)
  - Specificare il tipo di contenuto rappresentato dagli elementi della pagina (per es., per dire che un elemento è un link ipertestuale)
  - Eventualmente aggiungere informazioni utili alla visualizzazione su browser della pagina stessa (in disuso)
- La versione più recente di HTML è HTML5
- Documentazione e tutorials sul sito web <http://www.w3schools.com/html/default.asp>

# HTML – visualizzazione sul browser

- Il browser scarica il documento HTML e ne interpreta i tag in modo sequenziale dall'inizio alla fine per visualizzarlo a video
- Il browser visualizza la pagina applicando:
  - regole di presentazione di default, associate ai tag, oppure
  - regole specificate in un foglio stile che dice come visualizzare il contenuto dei tag (lo vedremo)
- Per ora noi lavoriamo senza fogli stile e usiamo solo le regole di visualizzazione di default degli elementi HTML

# Material from [W3Schools.com](https://www.w3schools.com/html/html_intro.asp)



The screenshot shows the W3Schools website interface. The browser address bar displays `w3schools.com/html/html_intro.asp`. The website header includes the W3Schools logo and navigation links: Tutorials, Exercises, Get Certified, Services, and Bootcamps. A dark navigation bar lists various technologies: HTML (highlighted), CSS, JAVASCRIPT, SQL, PYTHON, JAVA, PHP, BOOTSTRAP, HOW TO, W3.CSS, C, C++, C#, REACT, R, and JQU. A left sidebar contains a list of HTML topics, with 'HTML Introduction' highlighted in green. The main content area features the title 'HTML Introduction' and a green 'Previous' button. Below this, a paragraph states: 'HTML is the standard markup language for creating Web pages.' Further down, the section 'What is HTML?' is followed by a bulleted list of facts about HTML.

HTML Tutorial

- HTML HOME
- HTML Introduction
- HTML Editors
- HTML Basic
- HTML Elements
- HTML Attributes
- HTML Headings
- HTML Paragraphs
- HTML Styles
- HTML Formatting
- HTML Quotations
- HTML Comments
- HTML Colors
- HTML CSS
- HTML Links
- HTML Images

## HTML Introduction

[Previous](#)

HTML is the standard markup language for creating Web pages.

### What is HTML?

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content
- HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

# HTML

- HTML is the standard markup language for creating Web pages
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  - HTML describes the structure of a Web page
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  - HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

# A Simple HTML Document

## Example

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

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

</body>
</html>
```

Try it Yourself »

Click on the image to try it yourself

[https://www.w3schools.com/html/html\\_intro.asp](https://www.w3schools.com/html/html_intro.asp)

- The **<!DOCTYPE html>** declaration defines that this document is an HTML5 document
- The **<html>** element is the root element of an HTML page
- The **<head>** element contains meta information about the HTML page
- The **<title>** element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
- The **<body>** element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The **<h1>** element defines a large heading
- The **<p>** element defines a paragraph

# What is an HTML Element?

- An HTML element is defined by a start tag, some content, and an end tag:
  - `<tagname> Content goes here... </tagname>`
  - The HTML element is everything from the start tag to the end tag:
    - `<h1>My First Heading</h1>`
    - `<p>My first paragraph.</p>`

Start tag	Element content	End tag
<code>&lt;h1&gt;</code>	My First Heading	<code>&lt;/h1&gt;</code>
<code>&lt;p&gt;</code>	My first paragraph.	<code>&lt;/p&gt;</code>
<code>&lt;br&gt;</code>	<i>none</i>	<i>none</i>

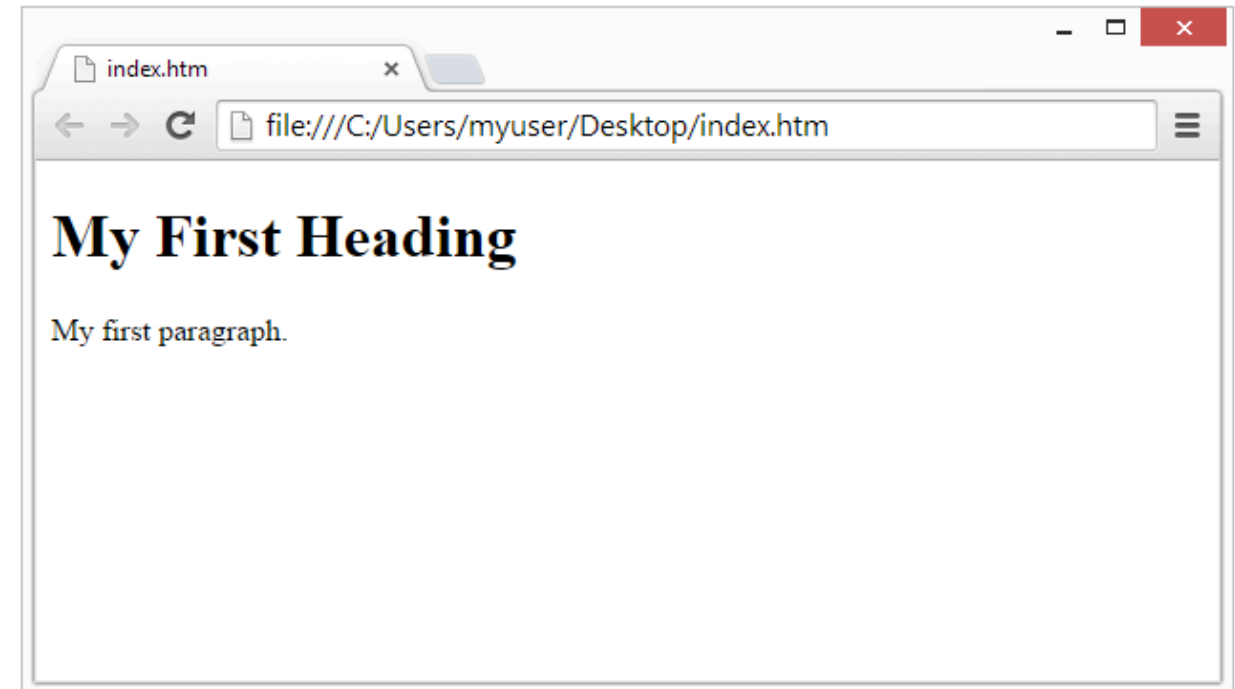
**Note:** Some HTML elements have no content (like the `<br>` element). These elements are called empty elements. Empty elements do not have an end tag! (they are however better written as `<br/>` to mark the fact that they are closed)



# Web Browsers

- The purpose of a web browser
  - Chrome, Edge, Firefox, Safari
  - is to read HTML documents and display them correctly
- A browser **does not display the HTML tags**
  - but uses them to determine how to display the document

- 



# HTML Page Structure

```
<html>
```

```
<head>
```

```
<title>Page title</title>
```

```
</head>
```

```
<body>
```

```
<h1>This is a heading</h1>
```

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

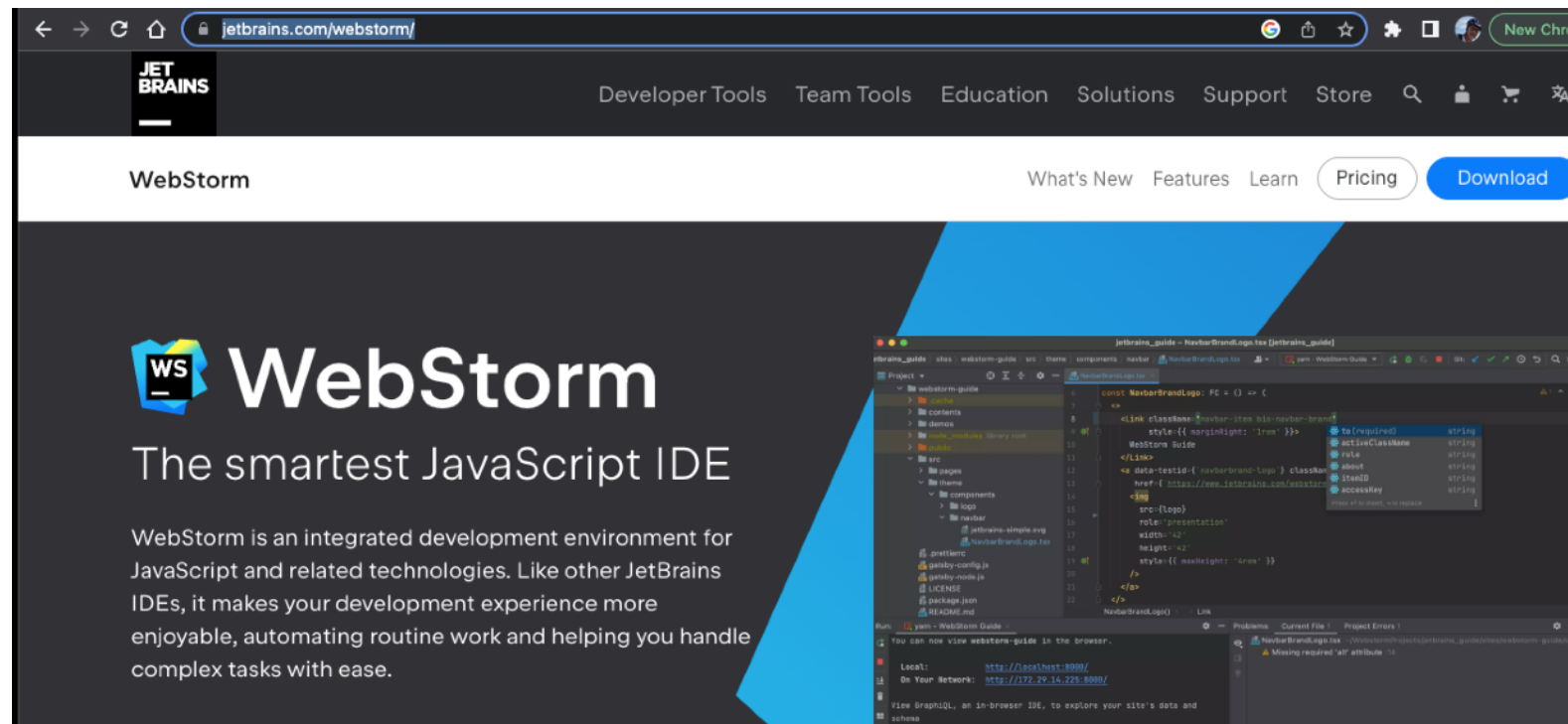
```
<p>This is another paragraph.</p>
```

```
</body>
```

```
</html>
```

# Editing HTML Documents

- You can use
  - Webstorm (suggested) - <https://www.jetbrains.com/webstorm/>
  - IntelliJ Ultimate (same as Webstorm with less obvious features)
- For both you can have a free student licence





WebStorm  
2022.2.5

Search projects

New Project

Open

Get from VCS

## Projects

Remote Development Beta

SSH

JetBrains Space

Customize

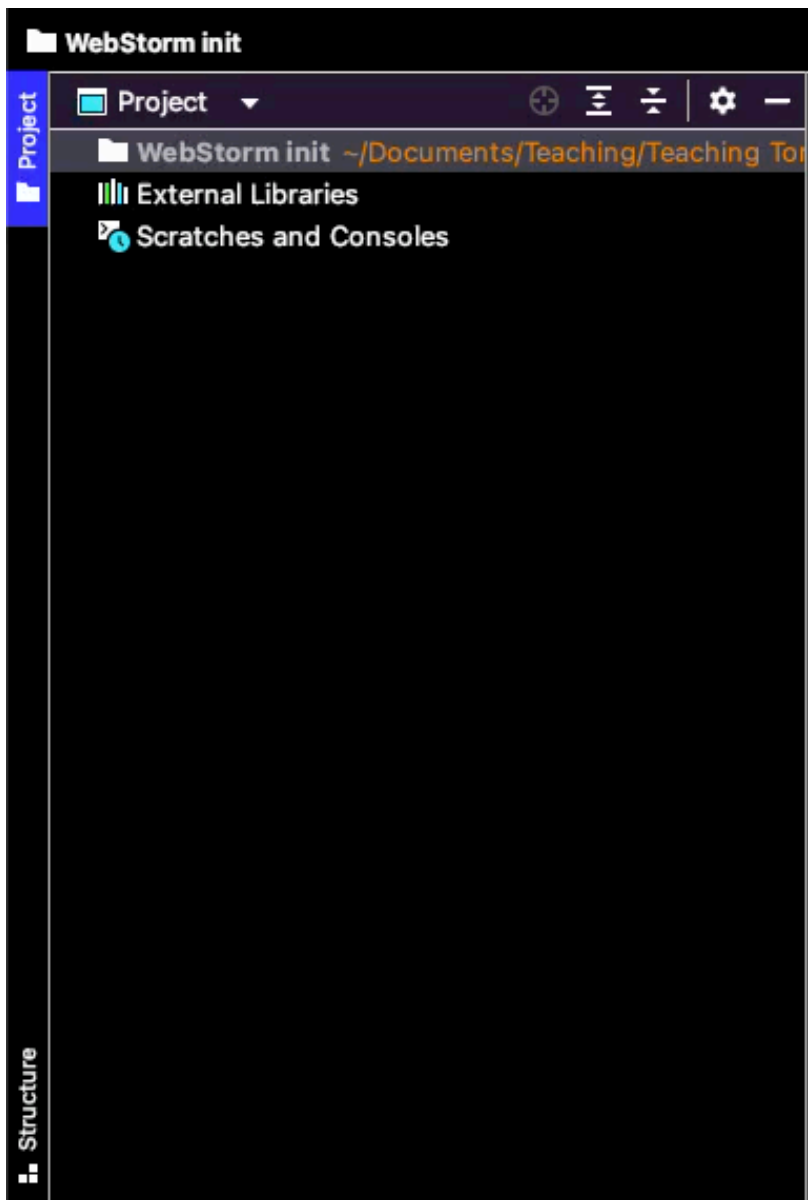
Plugins

Learn WebStorm

- M **mobility\_server**  
~/Documents/Programmes/Android/Torino/BHF/USFD\_Version/mobility\_server
- FC **Fabio\_Ciravegna**  
~/Documents/WWW/Torino/Fabio\_Ciravegna
- TS **Torino Mobility Server**  
~/Documents/Programmes/Android/Torino/Server/Torino Mobility Server
- NA **new\_website, Amilcare...**  
~/Documents/WWW/Sheffield/Fabio Ciravegna Official Site/new\_website
- FC **Fabio\_Ciravegna**  
~/Documents/WWW/Sheffield/Fabio Ciravegna Official Site/new\_website/Fabio\_Ciravegna
- W3 **Week 3**  
~/Documents/Teaching/Sheffield/COM3504-6504 Intelligent Web/COM3504 Slides/Week 3 C...
- P **package-lock**  
/private/var/folders/1n/6y0jk6955k9688y75p6gs7lr0000gp/T/package-lock.json
- NA **new\_website, Amilcare...**  
~/Documents/WWW/Fabio Ciravegna Official Site/new\_website
- OT **OTCameraE**  
~/Documents/Programs/Android/OTCameraE/OTCameraE
- WS **watchServer**  
~/Documents/Programs/Android/watchServer
- empty server for certhot**



# Creating an HTML file



Search Everywhere **Double ⇧**

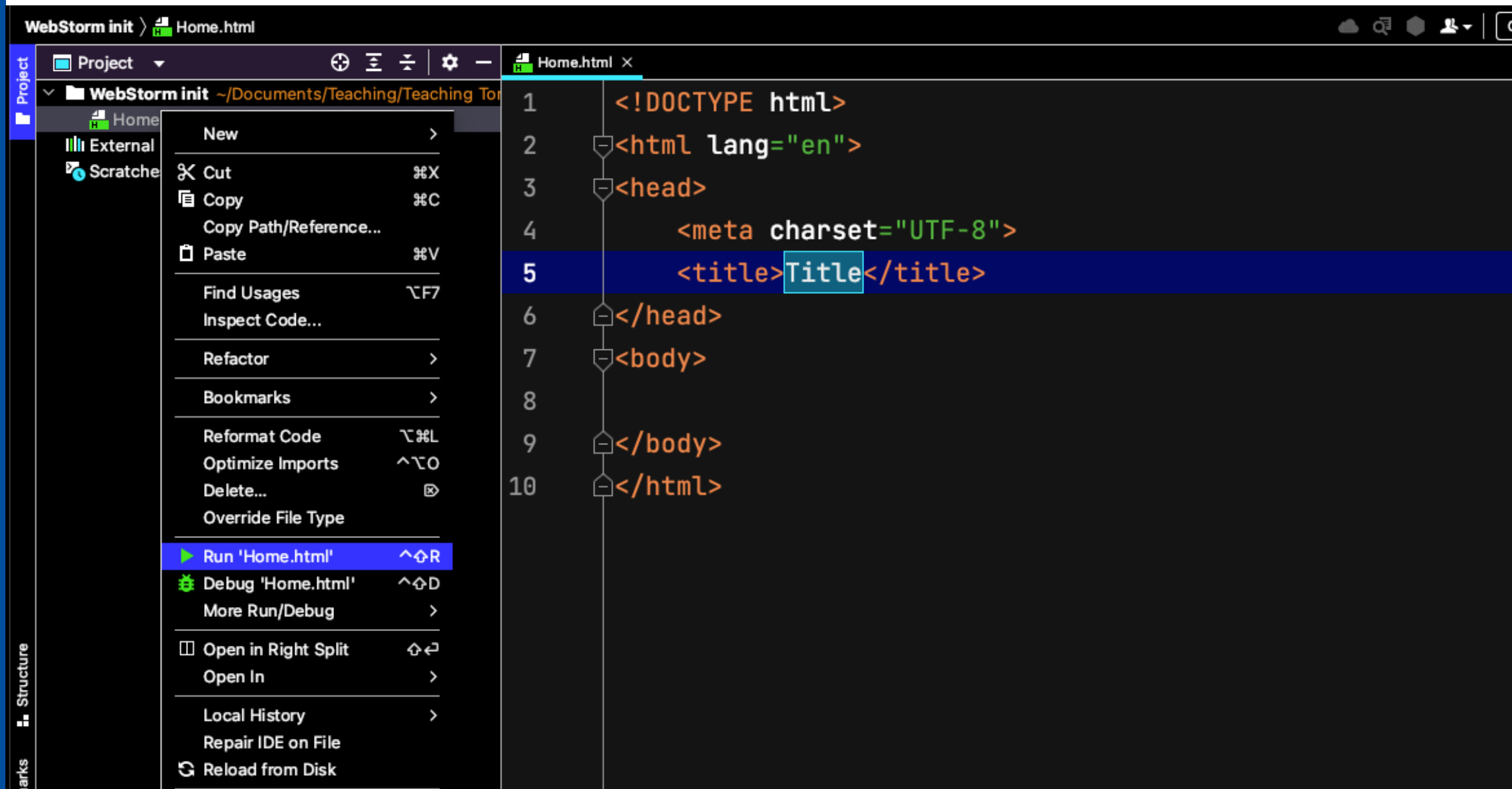
Go to File **⇧⌘O**

Recent Files **⌘E**

Navigation Bar **⌘↑**

Drop files here to open them

# View the HTML Page in Your Browser



The screenshot shows an IDE window with a file named 'Home.html' open. A context menu is displayed over the file, listing various actions. The 'Run' option, represented by a green play button icon, is highlighted in blue. The menu also includes options like 'Cut', 'Copy', 'Paste', 'Find Usages', 'Inspect Code...', 'Refactor', 'Bookmarks', 'Reformat Code', 'Optimize Imports', 'Delete...', 'Override File Type', 'Debug', 'More Run/Debug', 'Open in Right Split', 'Open In', 'Local History', 'Repair IDE on File', and 'Reload from Disk'.

The code editor on the right shows the following HTML structure:

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5  <title>Title</title>
6  </head>
7  <body>
8
9  </body>
10 </html>

```



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W3Schools Online Editor - "Try it Yourself"

← → ↺ 🏠 w3schools.com/html/html\_editors.asp



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HTML

CSS

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C

C++

C#

REACT

R

JQUERY

HTML Tutorial

HTML HOME

HTML Introduction

HTML Editors

HTML Basic

HTML Elements

HTML Attributes

HTML Headings

HTML Paragraphs

HTML Styles

HTML Formatting

HTML Quotations

HTML Comments

HTML Colors

HTML CSS

HTML Links

HTML Images

HTML Favicon

HTML Page Title

HTML Tables

HTML Lists

HTML Block & Inline

HTML Classes

## W3Schools Online Editor - "Try it Yourself"

With our free online editor, you can edit the HTML code and view the result in your browser.

It is the perfect tool when you want to **test** code fast. It also has color coding and the ability to save and share code with others:

### Example

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

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

</body>
</html>
```

Try it Yourself »

- All HTML documents must start with a document type declaration: `<!DOCTYPE html>`.
- The HTML document itself begins with `<html>` and ends with `</html>`.
- The visible part of the HTML document is between `<body>` and `</body>`.



# The <!DOCTYPE> Declaration

- The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.
  - It must only appear once, at the top of the page (before any HTML tags).
  - It is not case sensitive
- The <!DOCTYPE> declaration for HTML5 is:
  - **<!DOCTYPE html>**

# HTML Headings

- They are the titles of a document's sections
  - NOT to be used to make the font bigger!!!
- HTML headings are defined with the `<h1>` to `<h6>` tags.
  - `<h1>` defines the most important heading.
  - `<h6>` defines the least important heading

## Example

```
<h1>This is heading 1</h1>  
<h2>This is heading 2</h2>  
<h3>This is heading 3</h3>
```

Try it Yourself »

# HTML Paragraphs and Links

- HTML paragraphs are defined with the `<p>` tag

## Example

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

Try it Yourself »

- HTML links are defined with the `<a>` tag + an href attribute for the link

## Example

```
<a href="https://www.w3schools.com">This is a link</a>
```

Attributes are used to provide additional information about HTML elements.

# HTML Images

- HTML images are defined with the `<img>` tag.
  - The source file (**src**), alternative text (**alt**), **width**, and **height** are provided as attributes

## Example

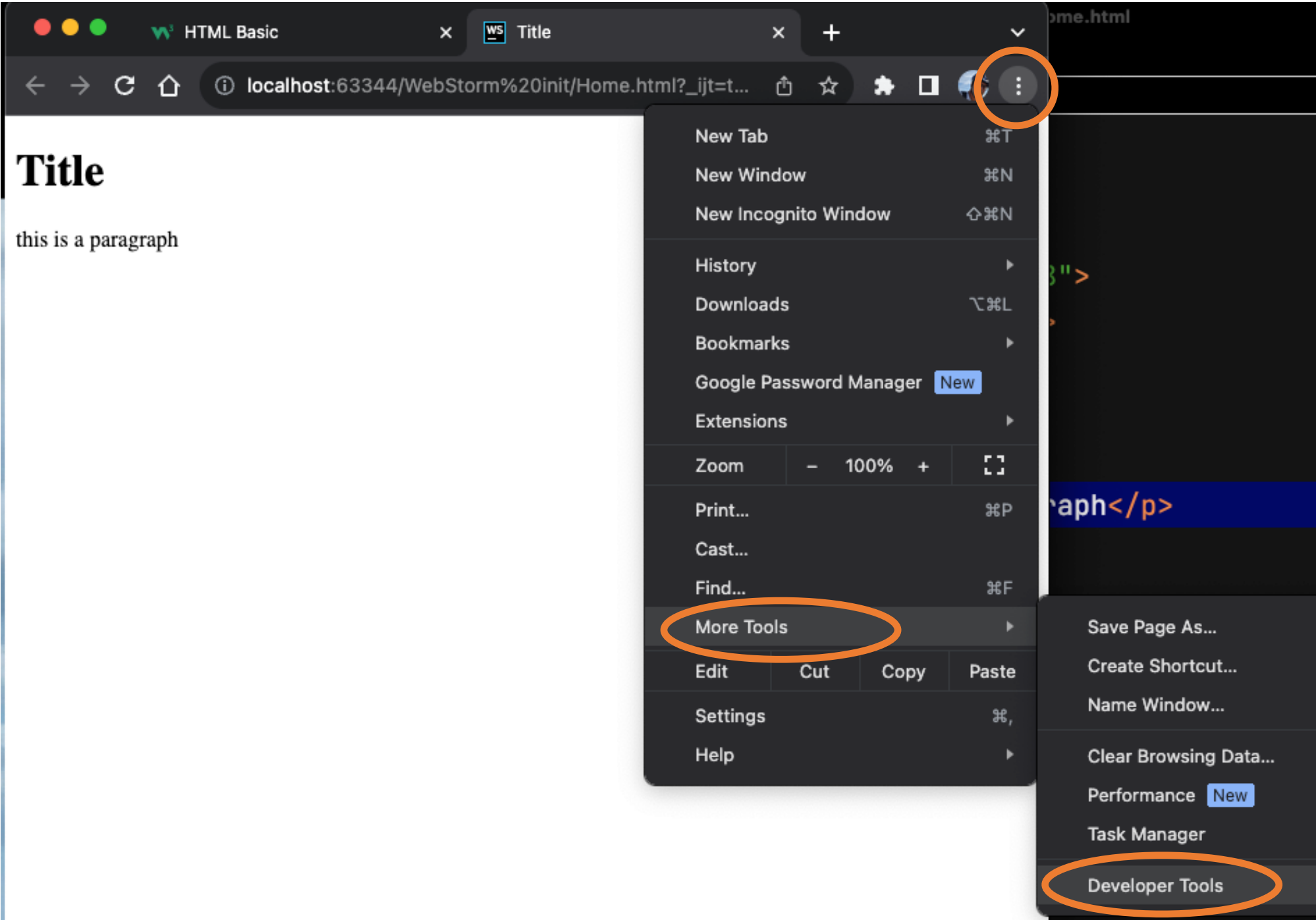
```

```

Try it Yourself »

# to View HTML Source in the Browser

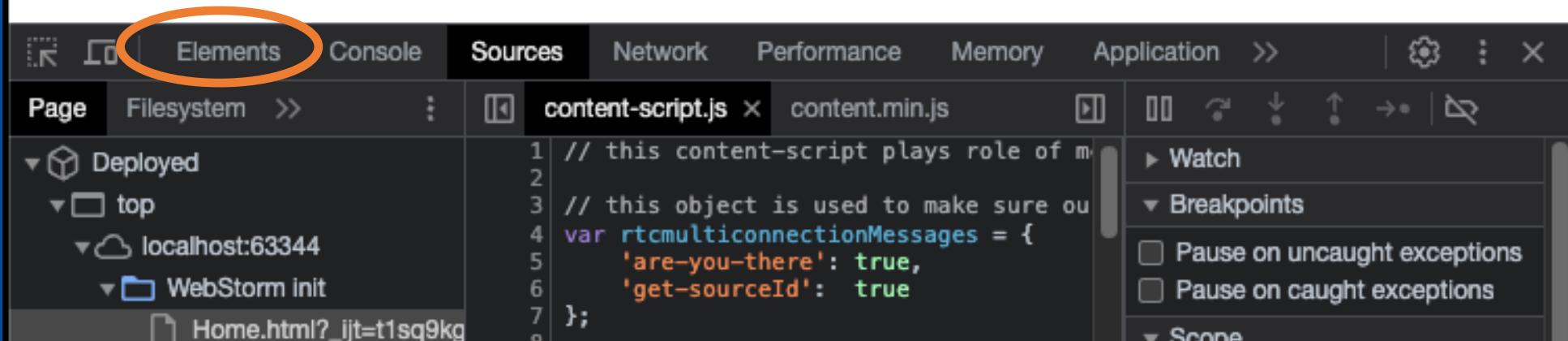
- You must use Google's Chrome in this module
  - Firefox is ok
  - Avoid using other browsers

A screenshot of a web browser window. The browser has two tabs: 'HTML Basic' and 'Title'. The address bar shows 'localhost:63344/WebStorm%20init/Home.html?\_ijt=t...'. The page content includes a large heading 'Title' and a paragraph 'this is a paragraph'. The browser's menu bar is open, showing options like 'New Tab', 'New Window', 'History', 'Downloads', 'Bookmarks', 'Google Password Manager', 'Extensions', 'Zoom', 'Print...', 'Cast...', 'Find...', 'More Tools', 'Edit', 'Cut', 'Copy', 'Paste', 'Settings', and 'Help'. The 'More Tools' option is circled in orange. A sub-menu is open for 'More Tools', showing options like 'Save Page As...', 'Create Shortcut...', 'Name Window...', 'Clear Browsing Data...', 'Performance', 'Task Manager', and 'Developer Tools'. The 'Developer Tools' option is also circled in orange. The background of the browser window shows a dark-themed code editor with some HTML code visible.

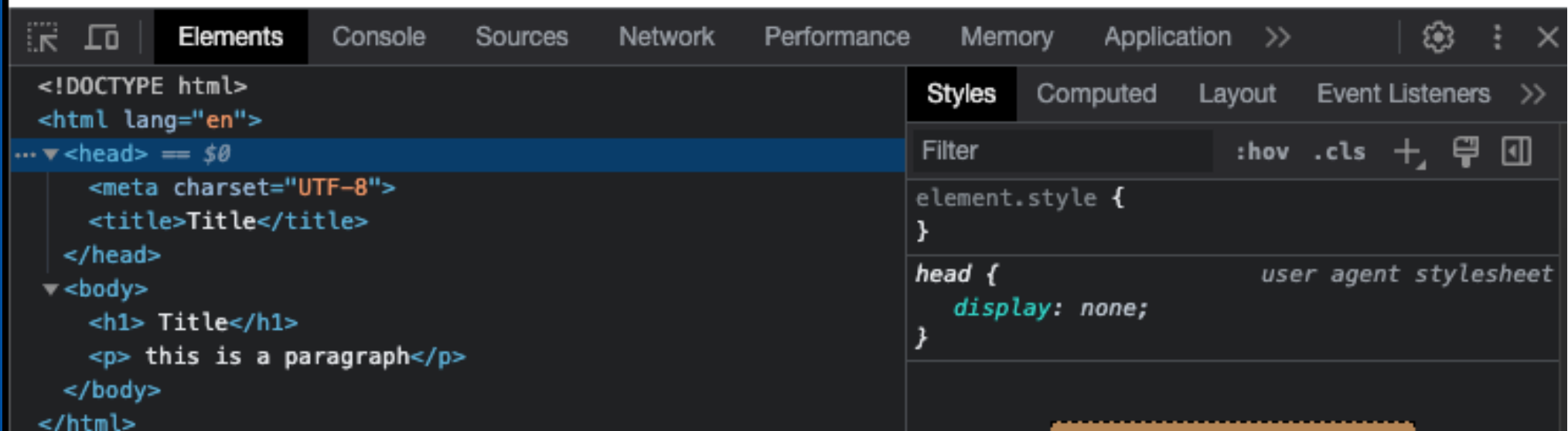
# Title

this is a paragraph

This is the Javascript Debugger  
Select Elements (bottom left)



this is a paragraph

A screenshot of a web browser's developer tools interface. The 'Elements' panel on the left shows the HTML structure: a root HTML element with a lang attribute set to 'en', followed by a head section containing a meta charset attribute set to 'UTF-8' and a title 'Title'. The body section contains an h1 element with the text 'Title' and a paragraph element with the text 'this is a paragraph'. The 'Styles' panel on the right shows the default user agent styles for the selected paragraph element, including 'display: none;'. The interface is dark-themed with various tabs like 'Elements', 'Console', 'Sources', 'Network', 'Performance', 'Memory', and 'Application' visible at the top of the developer tools.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Title</title>
</head>
<body>
  <h1> Title</h1>
  <p> this is a paragraph</p>
</body>
</html>
```

Styles

element.style {

head { user agent stylesheet

display: none;





# Title

this is a paragraph

⌕ ↶

ElementsConsoleSourcesNetworkPerformanceMemoryApplication >>

⚙ ⋮ ✕

<!DOCTYPE html>  
<html lang="en">  
 <head>  
 <meta charset="UTF-8">  
 <title>Title</title>  
 </head>  
 <body>  
 <h1> Title</h1>  
 <p> this is a paragraph</p> = \$0  
 </body>

StylesComputedLayoutEvent Listeners >>

Filter: :hov .cls + ⌨

element.style {  
}  
  
p {  
 display: block;  
 margin-block-start: 1em;  
 margin-block-end: 1em;  
 margin-inline-start: 0px;  
}

# Nested HTML Elements

- HTML elements can be nested (this means that elements can contain other elements).
- All HTML documents consist of nested HTML elements.
  - The following example contains four HTML elements (<html>, <body>, <h1> and <p>):

## Example

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

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

</body>
</html>
```

[Try it Yourself »](#)

# HTML Tutorial



HTML HOME

HTML Introduction

HTML Editors

HTML Basic

HTML Elements

HTML Attributes

HTML Headings

HTML Paragraphs

HTML Styles

HTML Formatting

HTML Quotations

HTML Comments

HTML Colors



HTML CSS

HTML Links

HTML Images

HTML Favicon

HTML Page Title

HTML Tables

HTML Lists

HTML Block & Inline

HTML Classes

HTML Id

HTML Iframes

HTML JavaScript

HTML File Paths

HTML Head

HTML Layout



HTML Responsive

HTML Computercode

HTML Semantics

HTML Style Guide

HTML Entities

HTML Symbols

HTML Emojis

HTML Charset

HTML URL Encode

HTML vs. XHTML

**HTML Forms**

HTML Forms

HTML Form Attributes

HTML Form Elements

HTML Input Types

HTML Input Attributes

HTML Input Form Attributes

Let's continue on the Website

- [https://www.w3schools.com/html/html\\_elements.asp](https://www.w3schools.com/html/html_elements.asp)



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# Questions?

