

— Intro to Coding HTML & CSS

Welcome to General Assembly!

We empower people to pursue work they **love** through education in business, coding, data, and design.



Let's get started...





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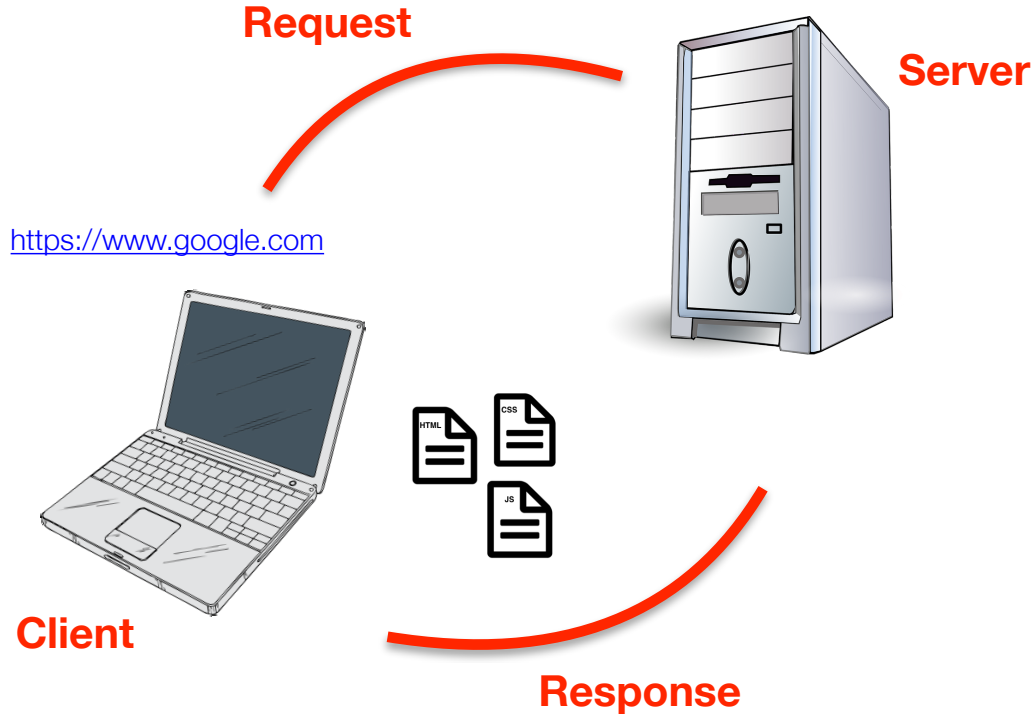
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HOW THE WEB WORKS

Request Response Cycle



Two Sides of Web Development



Front-End Web Development

- The part we see.
- Involves: images and content.
- HTML, CSS, and JavaScript.



Back-End Web Development

- What happens in the background.
- Involves: “business logic” and “data”.
- Ruby, Python, PHP, C++, Java, etc.

Web Developer Tools

We Need a Text Editor to Write Code

Microsoft Visual Studio Code

- It's 100% free!
- Provides a great features for writing code
syntax highlighting, code hinting, and auto
completion.
- Word, Pages, and any WYSIWYG editor is
NOT suitable for code!



We Need A Browser to Render Our Code

We recommend using **Google Chrome**.

It's free and provides many developer-friendly tools!



Getting Started

1. Type this URL into your browser: <https://tinyurl.com/y7m8te3o>
2. Extract the folder that downloads:
 - a. On a Mac: double click on the zip file and it will extract
 - b. On Windows: open the zip folder and hit 'Extract all' in the menu bar
3. Open your text editor.
4. Drag the entire folder you unzipped onto your text editor window.

HTML

Hyper Text Markup Language

Think of HTML as...


A language used to describe the
content and **structure** of our
documents.

HTML Boilerplate

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

The <head> Tag

- Can be thought of as the **brain** of the document.
- Not part of the *physical* layout of the page.
- Holds 'Meta' information:
 - ◆ The Page's Title
 - ◆ References to other files
 - ◆ Meta data for SEO



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

  </body>
</html>
```

The <body> Tag

- The *physical* structure.
- The part we 'see'.
- Most of our work will be in the body of the document.

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



Adding Content to Our Page

```
<!DOCTYPE html>
<html>
  <head>
    <title></title>
  </head>
  <body>
    <p>Content</p>
  </body>
</html>
```



A Typical HTML Tag

```
<p>Content</p>
```

The element above represents a paragraph.

A Typical HTML Tag



The diagram shows a dark gray rectangular box containing the HTML code `<p>Content</p>`. The opening tag `<p>` and the closing tag `</p>` are highlighted in yellow, while the word `Content` is in white. A red arrow points upwards from the text below to the opening tag `<p>`.

```
<p>Content</p>
```

This is the **opening tag**.

HTML tags always start with “<” and end with “>” characters.

Between the brackets, tags always starts with a tag name, in this case ‘p’ for *paragraph*.

A Typical HTML Tag

```
<p>Content</p>
```



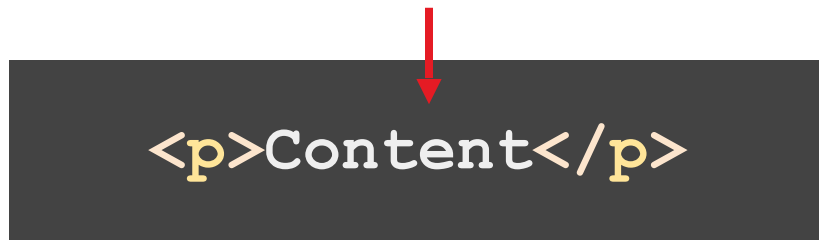
This is the **closing tag**.

Most, but not all, HTML tags will have a closing tag.

Closing tags will always start with a forward slash (/) followed by the tag name.

A Typical HTML Tag

This is the **content of the element**.



The content appears between the opening and closing tags.

This is the content that will appear on your page.

Elements Without Closing Tags

Some tags **don't** have closing tags.



```

```

Tags such as **** do not enclose any content, so they do not need an opening and closing.

HTML Attributes

```

```



This tag also includes an attribute. The image requires an attribute that points to an image file, which will load onto the web page.

Attributes provide further additional instructions and always take the form of **key="value"** .

HTML Attributes

Here's another example of an attribute providing further instructions.



```
<a href="http://www.google.ca">  
    Google Please!  
</a>
```

This is a **hyperlink** in HTML.

HTML Attributes

```
<a href="http://www.google.ca">  
    Google Please!  
</a>
```

```

```

Certain attributes may only have use for specific tags.

Hierarchy in HTML

```
<section>
  <p>
    Something about news:
    <a href="http://www.cnn.com">CNN</a>
  </p>
</section>
```

HTML tags can be nested inside one another, this represents hierarchy in the document.

We describe the hierarchy as **parent** and **child** relationships.

Let's Code!

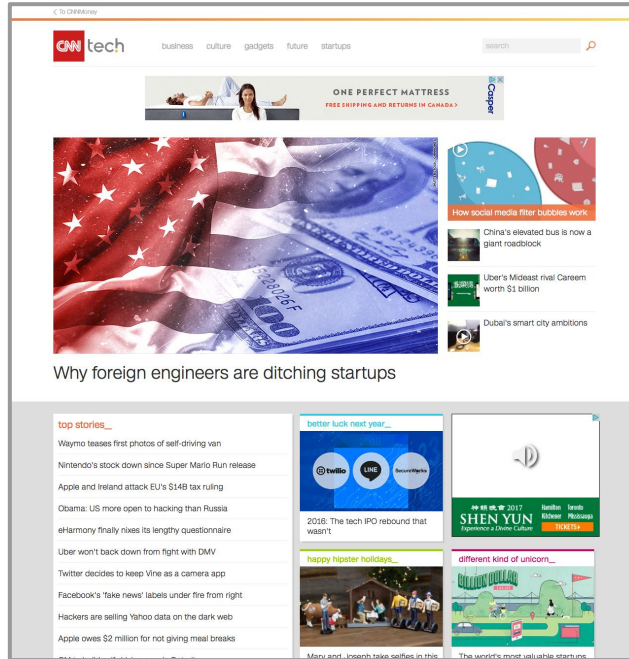
CSS

Cascading Style Sheets

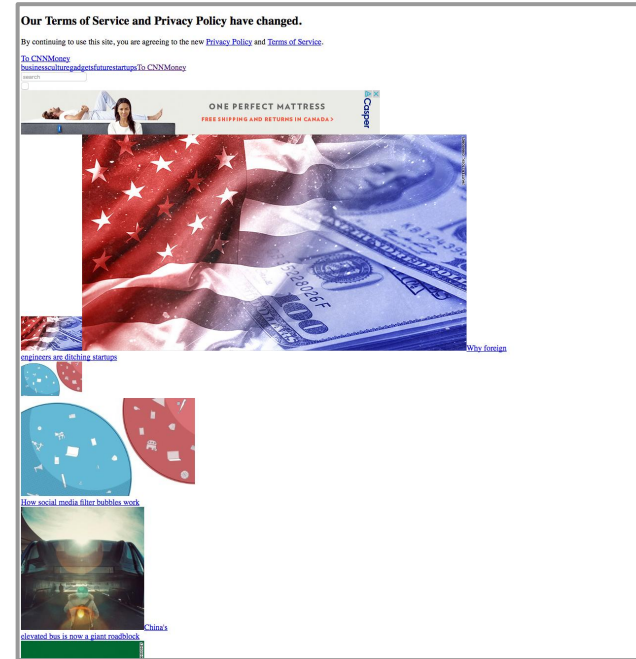
Think of CSS as...

Rules that specify how your elements should **appear** on your page.

CSS



With CSS



Without CSS

CSS Syntax

In this example **rule** we can see:

- 1 CSS **selector**
- 1 **Declaration block** denoted by the opening **{** and closing **}**
- 2 **Declarations**, each formed with a structure of **property: value;**

```
h1 {  
    font-size: 16px;  
    color: red;  
}
```

CSS Declarations

Properties:

Predefined terms that will change the way elements look and behave.

Values:

Properties can have either specific possible values or a broad range of possible values.

Declaration:

Together, each **property-value pair** form a declaration.

```
p {  
    font-size: 14px;  
    color: black;  
}
```


Selecting an HTML Element

```
h1 {  
    color: red;  
}
```

The rule's **selector** will define which **elements** in the HTML document will have this rule's declarations applied.

Example: Selecting by HTML Element

```
<p>  
  Learning tonight!  
</p>
```

```
p {  
  text-align: center;  
}
```

Example: Selecting by Class Attribute

```
<h1 class="highlight">  
  Hello there!  
</h1>
```

```
.highlight {  
  background-color: yellow;  
}
```

Example: Selecting by ID Attribute

```
<p id="title">ACME Printing CO.</p>
```

```
#title {  
  font-size: 50px;  
}
```

When to use ID vs Class

ID

- Used to select single elements

```
id="title"
```

```
#title
```

Class

- Used to select multiple elements

```
class="highlight"
```

```
.highlight
```

CSS...



LET'S STYLE THINGS UP!



Want More?

Checkout upcoming workshops at your local GA campus
ga.co/education

Thank You!