

# Getting started with HTML and CSS

Margit Tennosaar

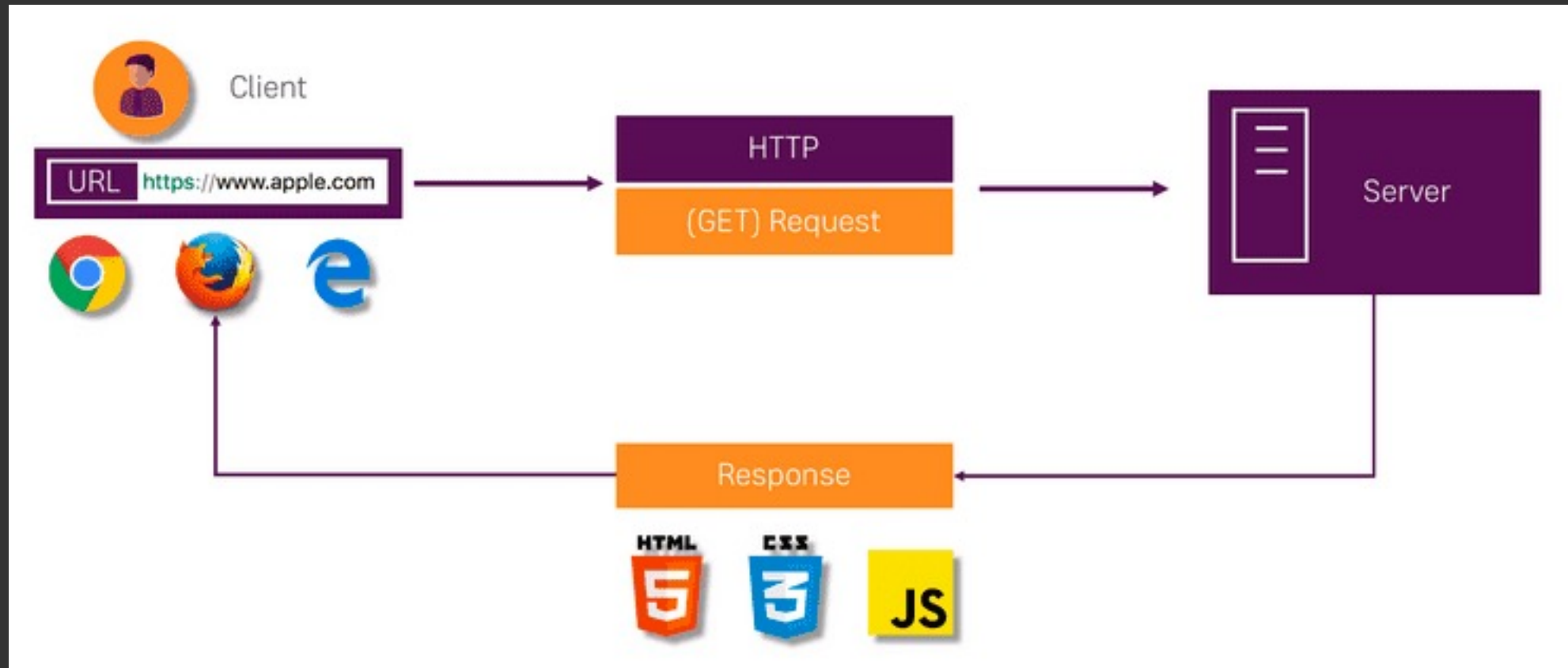
# In this session:

- How web works?
- HTML basic layout
- Including CSS
- HTML elements and attributes
- Comments
- HTML Typography and Quotations
- HTML inline and block elements
- HTML links
- Images in HTML and CSS
- Lists
- CSS selectors
- CSS combinators
- CSS colors

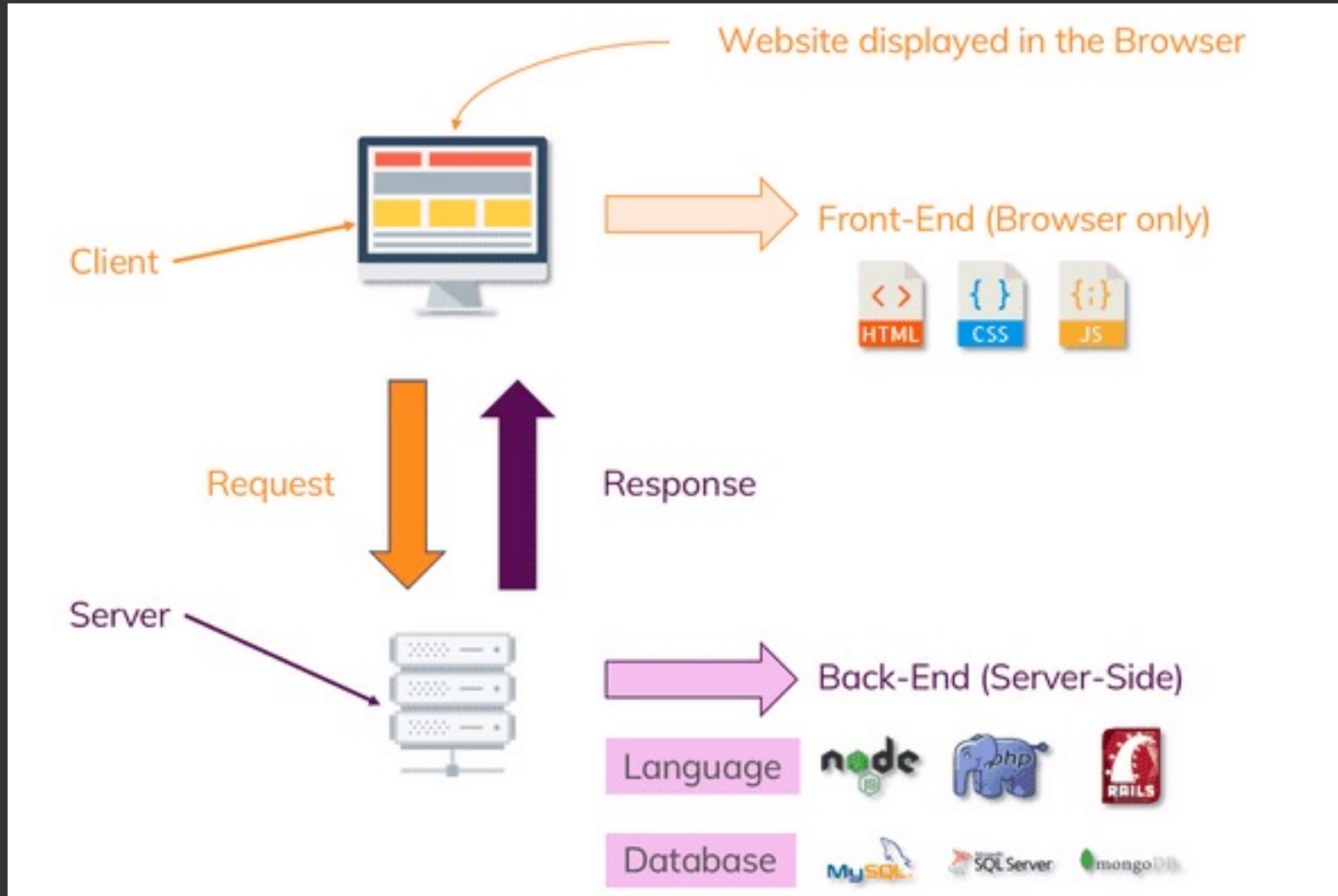
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How web works?

# How web works?



# Front-End and Back-End



# HTML

*HyperText Markup Language*



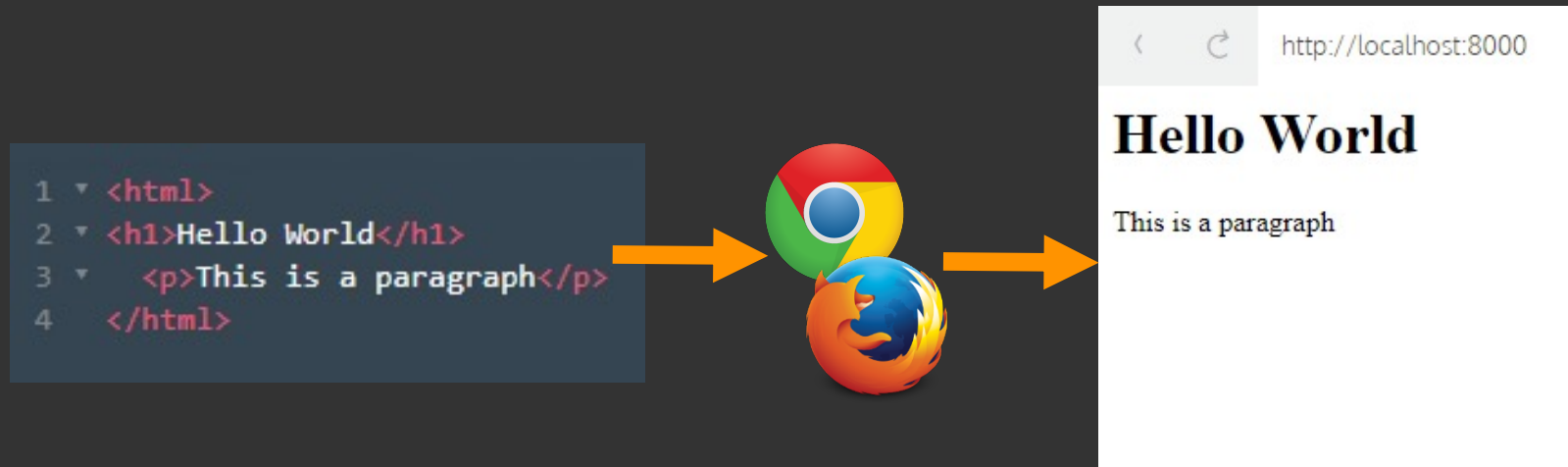
**Markup language!** = computer language that defines the structure and presentation of raw text. Markup surrounds the raw text with information the computer can interpret, "marking it up" to be processed.

HTML elements are represented by **tags**. Semantic HTML elements names describe what that element does "heading", "paragraph", "table", and so on.

Browsers do not display the HTML tags but use them to render the content of the page.

# HTML

Browser reads the HTML file and transforms it into an interactive document



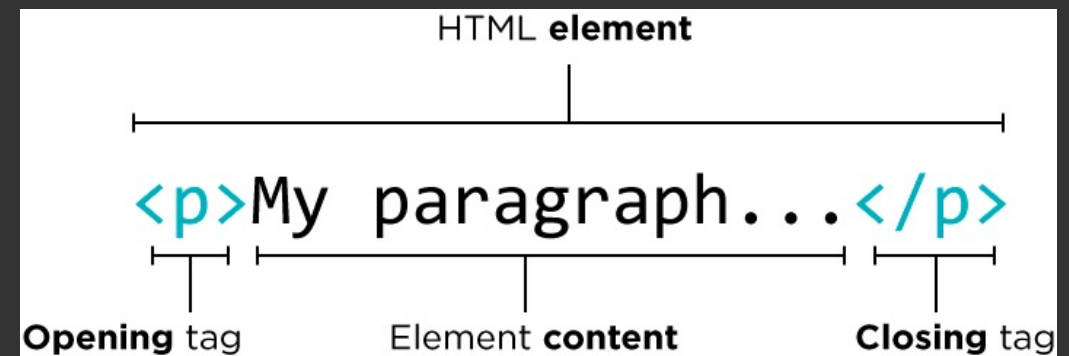
# How it works?

Browser can interpret text that is wrapped in HTML elements. These can be nested inside one another, each containing information about the type and structure of information to be displayed in the browser

**HTML tags normally come in pairs** like `<p>` and `</p>`.

The first tag in a pair is the start tag, the second tag is the end tag

Some html tags **close themselves**

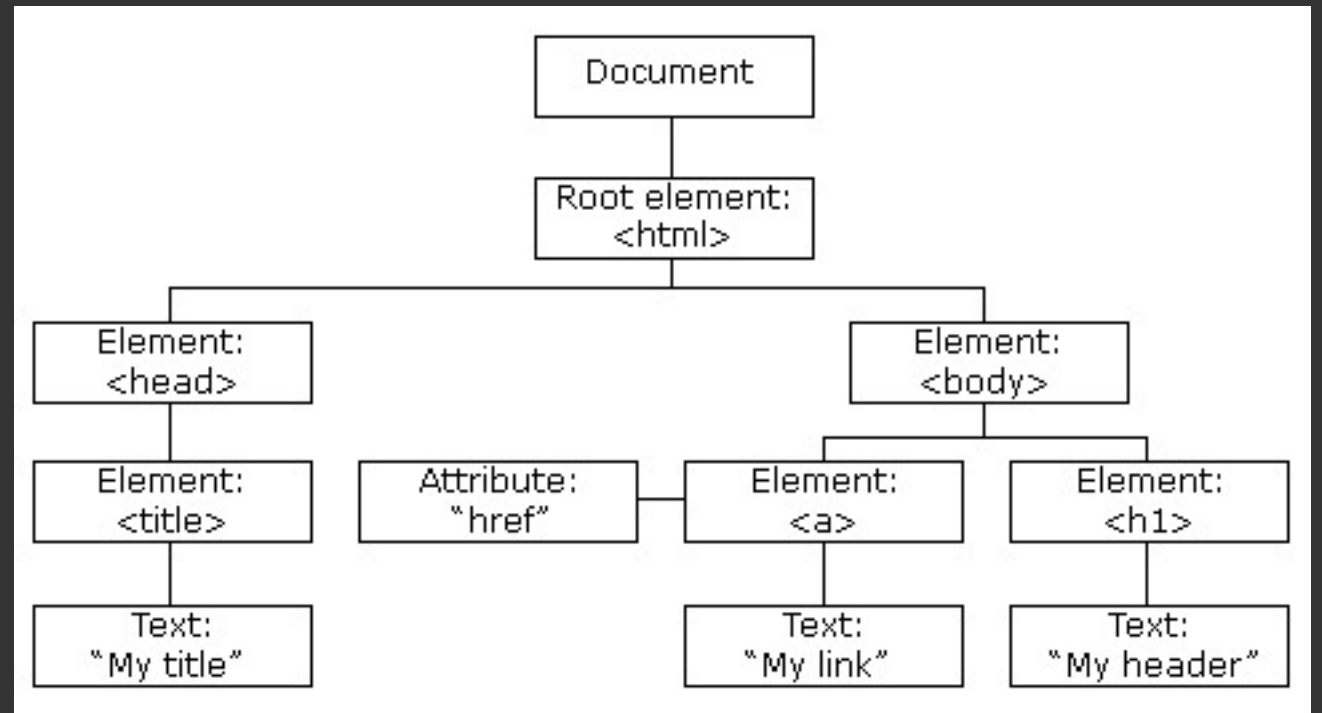




# HTML DOM

## HTML Document Object Model

– HTML page is constructed as a tree of Objects



# Learn by doing – Task 1

- Launch and set up VSc
  - Prettier
  - Material Icon Theme
  - Live Server
  - Emmet <https://docs.emmet.io/cheat-sheet/>
- Inside HTML folder, create sub-folder for task 1
- Create a html file which contains:

# Learn by doing – Task 1

`<!DOCTYPE html>` declaration defines this document to be HTML5

`<html>` element is the root element of an HTML page

`<head>` element contains meta information about the document

`<title>` element specifies a title for the document

`<body>` element contains the visible page content

`<h1>` element defines a large heading

`<p>` element defines a paragraph

# What is CSS?

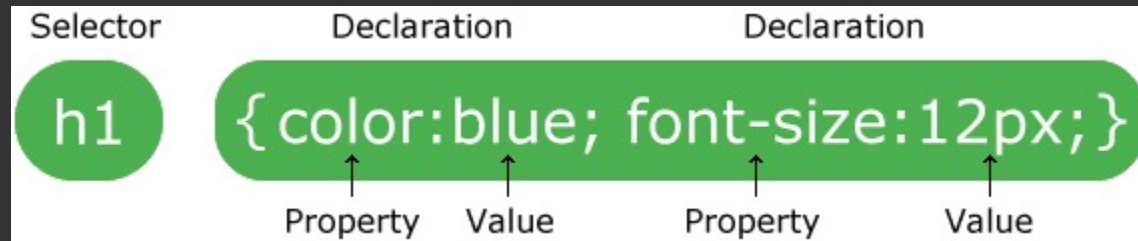


CSS describes how HTML elements are to be displayed on screen, paper, or in other media

CSS saves a lot of work. It can control the layout of multiple web pages all at once

External stylesheets are stored in CSS files

# CSS Syntax and Selectors



Selectors can be:

- HTML elements
- IDs #
- Classes .

# CSS selectors

HTML element

`p {color:blue}`

id

`#my_id {color:blue}`

class

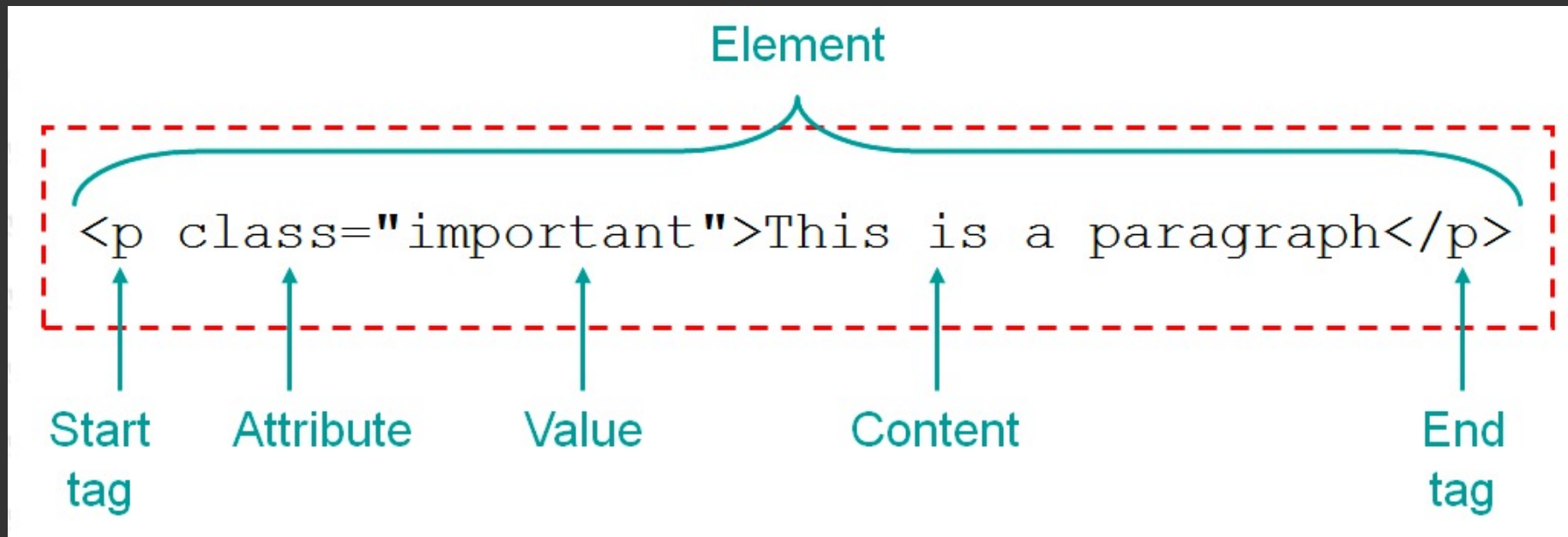
`.my_class {color:blue}`

The difference between an **ID** and a **class** is that an ID can be used to identify one element, whereas a class can be used to identify more than one.

# HTML Attributes

Attributes provide additional information about an element

name="value"



# Including CSS

1. External style sheet
2. Internal style sheet
3. Inline style

1

```
<head>  
  <link rel="stylesheet" type="text/css" href="mystyle.css">  
</head>
```

2

```
<head>  
  <style>  
    body {background-color: linen;}  
    h1 {color: maroon; margin-left: 40px;}  
  </style>  
</head>
```

3

```
<h1 style="color:blue;margin-left:30px;">This is a heading</h1>
```



# CSS

## style.css

```
body {  
    background-color: lightblue;  
}  
  
#my_id {  
    color: white;  
    text-align: center;  
}  
  
.my_class {  
    font-family: verdana, sans-serif;  
    font-size: 20px;  
}
```

# Comments

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

/\* Write your CSS comments here \*/

# Task 1 continues

- Connect CSS with HTML
- Add background color
- Change text to white
- Change font
- Change text size to 20px
- Add some comments in HTML and CSS

# HTML Typography and Quotations

# Task 2

- Create new project: **task\_2**
- Create index.html file
- Add background and text colors
- Collect HTML Typography and Quotations examples to this file

# HTML typography

## Headings

`<h1>Heading 1</h1>` should be used for main headings (**only once on page**)

`<h2>Heading 2</h2>` then second level headings

`<h3>Heading 3</h3>` following third level

`<h4>Heading 4</h4>` and so on....

`<h5>Heading 5</h5>`

`<h6>Heading 6</h6>`

# HTML typography

## Paragraphs and text formatting

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

`<strong>` - Important text

`<em>` - Emphasized text

`<mark>` - Marked text

`<small>` - Small text

`<del>` - Deleted text

`<ins>` - Inserted text

`<sub>` - Subscript text

`<sup>` - Superscript text

`<pre>` - pre-formatted text

`<b>` - Bold text (don't use it, instead use CSS)

`<i>` - Italic text (don't use it, instead use CSS)

# HTML Quotations

`<abbr title="">` - Defines an abbreviation or acronym

`<address>` - Defines contact information for the author/owner of a document

`<bdo dir="rtl">` - Defines the text direction

`<blockquote>` - Defines a section that is quoted from another source

`<cite>` - Defines the title of a work

`<q>` - Defines a short inline quotation



# HTML breaks

`<br>` line break

`<hr>` horizontal rule

# Block and inline elements

# Block and inline elements

**BLOCK ELEMENTS EXPAND NATURALLY**



**AND NATURALLY DROP BELOW OTHER ELEMENTS**



**INLINE ELEMENTS FLOW WITH TEXT**

PELLENTEQUE HABITANT MORBI TRISTIQUE SENECTUS  
ET NETUS ET MALESUADA FAMES AC TURPIS EGESTAS.  
VESTIBULUM **INLINE ELEMENT** VITAE, ULTRICIES  
EGET, TEMPOR SIT AMET, ANTE. DONEC EU LIBERO SIT  
AMET QUAM EGESTAS SEMPER. AENEAN ULTRICIES MI  
VITAE EST. MAURIS PLACERAT ELEIFEND LEO.

# HTML Block Elements

<address><article><aside><blockquote><canvas><dd><div><dl><dt><fieldset><figcaption><figure><footer>  
<form><h1><h2><h3><h4><h5><h6><header><hr><li><main><nav>  
<noscript><ol><p><pre><section><table><tfoot><ul><video>

# HTML **Inline** Elements

<a><abbr><acronym><b><bdo><big><br><button>

<cite><code><dfn><em><i><img><input><kbd>

<label><map><object><output><q><samp><script>

<select><small><span><strong><sub><sup><textarea><time><tt><var>

# But what if I want to use something else...

`<div>` - Defines a section in a document (block-level)

`<span>` - Defines a section in a document (inline)

# HTML links

**Anchor/links connect** two different **documents**, or **locations**.

Usually you can recognize by hovering link and mouse arrow turns to cursor.

```
<a href="url" target="_blank">link text</a>
```

# HTML Links - The target Attribute

The **target** attribute specifies **where to open the linked document**.

The target attribute can have **only one** of the following **values**:

- \_blank** - Opens the linked document in a new window or tab

- \_self** - Opens the linked document in the same window/tab as it was clicked (this is default)

- \_parent** - Opens the linked document in the parent frame

- \_top** - Opens the linked document in the full body of the window

- framename** - Opens the linked document in a named frame



# Links

## External links

```
<a href="http://google.com">Click For Google</a>
```

## Internal links

```
<a href="/about.html">Typography</a>
```

```
<a href="#footer">Footer</a>
```

# Images

## Internal image

```

```

## External image

```

```

# Images

**Internal** image:

```
background-image: url('/images/sample.jpg');
```

**External** image:

```
background-image: url('https://source.unsplash.com/200x200/?building');
```

# Lists

## Unordered lists

- first item
  - first item first subitem
  - first item second subitem
- second item
- third item

## Ordered lists

1. first item
  - 1.1. first item first subitem
  - 1.2. first item second subitem
2. second item
3. third item

# Lists

```
<ul>
  <li>First item
    <ul>
      <li>first item first subitem</li>
      <li>first item second subitem</li>
    </ul>
  </li>
  <li>second item</li>
  <li>third item</li>
</ul>
```

# Use of lists

An unordered list is one common method for creating a  
**navigation**

# CSS combinators

**descendant** selector (space)

main p {background:green}

**child** selector (>)

main > p {background:green}

**adjacent sibling** selector (+)

main + p {background:green}

**general sibling** selector (~)

main ~ p {background:green}

# CSS colors

Hexadecimal colors	<code>#ff0000;</code>
RGB colors	<code>rgb(255, 0, 0);</code>
RGBA colors	<code>rgba(255, 0, 0, 0.3);</code>
HSL colors	<code>hsl(120, 100%, 50%);</code>
HSLA colors	<code>hsla(120, 100%, 50%, 0.3);</code>
Cross-browser color names	<code>green</code>



# Portfolio project

# Portfolio project – week 1

## HTML

- Add navigation with links
- Three different level headings
- Paragraph text
- Image in HTML

## CSS

- Background color
- Img size
- Text color
- Font family

# Manuals

<https://www.w3schools.com/tags/default.asp>

<https://devdocs.io/>

<https://zealdocs.org/>

*To use manuals, learn language first!*