

# Information Technology Essentials — Lecture 14

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## **Web Technology (Part 3)**

# XML

?

# eXtensible Markup Language (XML)

## Definition

**XML.** Is defined as a declarative interpreted special-purpose programming language designed to store and transport data (you can also, superficially, call it a markup language, just like you might refer to HTML).

It uses tags to encode documents in a format that is both human-readable and machine-readable.

XML code is just information wrapped in tags (marks).

XML files have file extension \*.xml.

XML tags are not predefined like HTML tags are. You define the tags (eX).

XML simplifies data sharing among various platforms (no conversion).

XML content can be loaded into an HTML file using Javascript.

# eXtensible Markup Language (XML)

## Definition

**XML.** Is defined as a declarative interpreted special-purpose programming language designed to store and transport data (you can also, superficially, call it a markup language, just like you might refer to HTML).

```
<bookstore>
  <book category="Information Technology">
    <title lang="en">Information Technology: An introduction for today's digital world</title>
    <author>R. Fox</author>
    <year>2015</year>
    <price>1300 DA</price>
  </book>
  <book category="Information Technology">
    <title lang="en">Schneider's Invitation to Computer Science</title>
    <author>G. M. Schneider and J. L. Gersting</author>
    <year>2017</year>
    <price>1200 DA</price>
  </book>
  <book category="Information Technology">
    <title lang="en">Information Technology Essentials</title>
    <author>E. Frick</author>
    <year>2022</year>
    <price>1500 DA</price>
  </book>
</bookstore>
```

# eXtensible Markup Language (XML)

## Definition

**XML.** Is defined as a declarative interpreted special-purpose programming language designed to store and transport data (you can also, superficially, call it a markup language, just like you might refer to HTML).

XML is generally used when:

- You want to export and import data between databases.
- You want diff applications to exchange data thru a middleware.
- You want to exchange data btw processes on different PCs.
- And many more

While XML has its strengths in certain scenarios, it's important to note that in web development, the use of JSON (JavaScript Object Notation) has become more prevalent due to its simplicity, ease of use, and close relationship with JavaScript. But, this doesn't mean it is replacing it.



# Cascaded Styling Sheets

?

# Cascaded Styling Sheets (CSS)

## Definition

**CSS.** Is a standard declarative interpreted special-purpose programming language used to style and format the visual presentation of HTML and XML documents on the web. The language is interpreted by a web-browser.



A document containing CSS source code has extension **\*.css**.

# Cascaded Styling Sheets (CSS)

CSS code can be embedded into HTML code following three different ways:

- ① **Inline.** This approach consists of adding CSS properties to HTML tags to customize the background, color, position ... of the item (headings, paragraphs, sentence, etc) specified between the HTML tag.
- ② **Internal.** This approach consists of defining CSS properties within the head section of an HTML document. These properties are defined within `<style>...</style>` tags.
- ③ **External.** This approach consists of defining CSS properties within an external file with extension `*.css`. The file is then included into the HTML file using the `<link>` tag.

# Cascaded Styling Sheets (CSS) — Selectors and Attributes

CSS turns around two main pieces: **selectors** and **attributes**:

- **Selector.** It is seen as a container that groups some CSS properties to be applied on a HTML element. We call them selectors because they select the concerned HTML element and apply the properties on it.
- **Attributes.** Are the properties (called styles) contained (listed) in a given selectors. They are applied from top-to-bottom.

# Cascaded Styling Sheets (CSS) — Selectors and Attributes

**Selectors** are called selectros because they select the concerned HTML element and apply the properties on it. They can select by:

Name: The selector will use the name of the HTML tag, e.g., if you want to apply special styles to a paragraph, then in the CSS file there will be a selector named with letter “p” (because of the HTML p-tag):

In the HTML file <p>ABCD</p> and in the CSS file p{...}

ID: The HTML tag will have an ID, which is the one of the selector, e.g., if you wanted to apply special styles to a specific paragraph ABCD, then you would first give an ID to the HTML paragraph tags of that paragraph, and create a selector with that ID as a name preceded by a # sign:

In the HTML file <p id="para">ABCD</p> and in the CSS file #para{...}

# Cascaded Styling Sheets (CSS) — Selectors and Attributes

**Selectors** are called selectros because they select the concerned HTML element and apply the properties on it. They can select by:

**ID:** The HTML tag will have an ID, which is the one of the selector, e.g., if you wanted to apply special styles to a specific paragraph ABCD, then you would first give an ID to the HTML paragraph tags of that paragraph, and create a selector with that ID as a name preceded by a # sign:

In the HTML file <p id="para">ABCD</p> and in the CSS file #para{...}

**Class:** The HTML tag will have class with a value. The class name will be the name of the selector preceded by a period, e.g., if you wanted to apply special styles to a specific paragraph XYZ, then you would first give a class ID to the HTML paragraph opening tag of that paragraph, and create a class selector with the name of the class ID preceded by a period:

In the HTML file <p class="para">XYZ</p> & in the CSS file .para{...}

# Cascaded Styling Sheets (CSS) — Inline

This is an example of “Inline integration” to embed CSS properties:

The screenshot shows a code editor window titled "index.html" and a browser window titled "CSS Explained".

**Code Editor (index.html):**

```
1 <html>
2   <head>
3     <title>CSS Explained</title>
4   </head>
5
6   <body style="background-color: #bisque; color: #cornflowerblue;">
7     <h1 style="color: #black;">The National School of Artificial Intelligence</h1>
8     <p>
9       The National School of Artificial Intelligence is an institution
10      of excellence for education whose vocation is to educate engineers
11      specializing in the theory of artificial intelligence and data
12      sciences. They will also have the capacity to develop and deploy
13      practical and innovative solutions to the problems of the various
14      socio-economic sectors (health, energy, agriculture, transport, etc.)
15    </p>
16  </body>
17</html>
```

**Browser Preview:**

The National School of Artificial Intelligence

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.).

# Cascaded Styling Sheets (CSS) — Internal

This is an example of “Internal integration” to embed CSS properties:

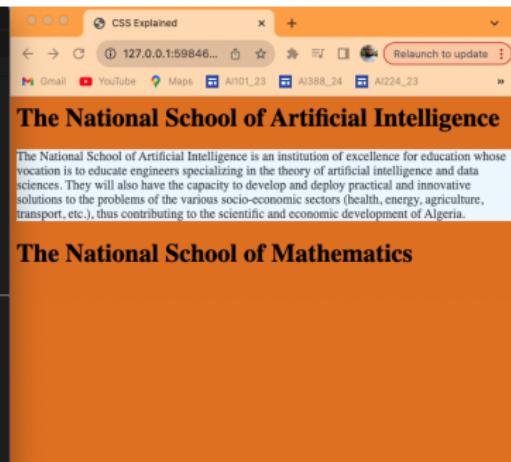
The image shows a screenshot of a web development environment and a browser window. On the left, the VS Code interface displays the file 'index.html' with the following content:

```
<html>
  <head>
    <title>CSS Explained</title>
    <style>
      body{
        background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
      }
      h1{
        color: #black;
      }
    </style>
  </head>
  <body>
    <h1>The National School of Artificial Intelligence</h1>
    <p>
      The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.).
    </p>
    <h1>The National School of Mathematics</h1>
  </body>
</html>
```

On the right, a browser window titled 'CSS Explained' shows the rendered HTML. It features a dark orange header with the title 'The National School of Artificial Intelligence'. Below the header, there is a paragraph of text describing the school's mission. At the bottom of the page, another 'The National School of Mathematics' header is visible.

# Cascaded Styling Sheets (CSS) — External

This is an example of “external integration” to embed CSS properties:



The screenshot shows a code editor on the left and a browser window on the right. The code editor displays the file `index.html` with the following content:

```
<html>
  <head>
    <title>CSS Explained</title>
    <link rel="stylesheet" href="css_code.css">
  </head>
  <body>
    <h1>The National School of Artificial Intelligence</h1>
    <p>The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.)</p>
    <h1>The National School of Mathematics</h1>
  </body>
</html>
```

The browser window shows the rendered HTML. It has a yellow header bar with the title "CSS Explained". The main content area has a white background. It features two `h1` headings: "The National School of Artificial Intelligence" and "The National School of Mathematics". Between the first `h1` and the second, there is a paragraph of text describing the school's mission and focus on artificial intelligence and data sciences.

# Cascaded Styling Sheets (CSS) — External

This is an example of “external integration” to embed CSS properties:

The screenshot shows a code editor on the left and a browser window on the right. The code editor displays the contents of a CSS file named `css_code.css`:

```
# css_code.css > p
1 body{
2     background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
3 }
4
5
6 h1{
7     color: black;
8 }
9
10 p{
11     background-color: #aliceblue;
12 }
```

The browser window shows two web pages side-by-side. The left page has a dark orange background and contains the text "The National School of Artificial Intelligence". The right page has an orange background and contains the text "The National School of Mathematics". Both pages have a header bar with various icons and links.

# Cascaded Styling Sheets (CSS) — External

This is an example of “external integration” to embed CSS properties:

The screenshot shows a code editor on the left and a browser window on the right. The code editor displays the following CSS code in a file named `css_code.css`:

```
# css_code.css > p
1 body{
2     background-color: #rgb(228, 126, 11); color: #rgb(72, 76, 84);
3 }
4
5 h1{
6     color: black;
7 }
8
9 p{
10    background-color: #aliceblue;
11 }
12 }
```

The browser window shows a web page with two sections. The first section has a yellow background and contains the text "The National School of Artificial Intelligence". The second section has an orange background and contains the text "The National School of Mathematics". Both sections have their respective background colors and text colors defined by the CSS rules from the external file.

**This approach is the most adopted and recommended one**

# Cascaded Styling Sheets (CSS) — External

You may want to apply different styling properties for the same tag. You could then add identities to each tag that you want to customize, and define those in the CSS file using `#` sign:

The image shows a code editor on the left and a browser window on the right. The code editor displays a file named `css_code.css` with the following CSS code:

```
# css_code.css
body{
    background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
}
h1{
    color: black;
}
#p1{
    background-color: #aliceblue;
}
#p2{
    background-color: #aquamarine;
}
```

The browser window on the right shows a web page titled "The National School of Artificial Intelligence". The page content is:

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria.

The National School of Mathematics

The national Higher School of Mathematics (NHS) is the first Algerian engineering school in mathematics. It welcomes the best baccalaureate holders from the M, SE and MT streams, and aims to: Train high-level engineers in mathematics; Offer attractive courses for students; Support innovation in large companies; Inform and interact with society on all aspects of mathematics; Awarding the engineering degree and giving the possibility of doctoral studies.

# Cascaded Styling Sheets (CSS) — External

You may want to apply different styling properties for the same tag. You could then add identities to each tag that you want to customize, and define those in the CSS file using `#` sign:

The image shows a code editor interface with two files open: `index.html` and `css_code.css`. The `index.html` file contains HTML structure with two `<h1>` tags and two `<p>` tags, one with id `p1` and one with id `p2`. The `css_code.css` file contains CSS rules defining styles for these elements. To the right, a browser window displays the rendered HTML with the applied CSS styles.

```
index.html
1 <html>
2
3
4   <head>
5     <title>CSS Explained</title>
6     <link rel="stylesheet" href="#css_code.css">
7   </head>
8
9   <body>
10    <h1>The National School of Artificial Intelligence</h1>
11
12    <p id="p1">
13      The National School of Artificial Intelligence is an institution
14      of excellence for education whose vocation is to educate engineers
15      specializing in the theory of artificial intelligence and data
16      sciences. They will also have the capacity to develop and deploy
17      practical and innovative solutions to the problems of the various
18      socio-economic sectors (health, energy, agriculture, transport, etc.)
19    </p>
20
21    <h1>The National School of Mathematics</h1>
22
23    <p id="p2">
24      The national Higher School of Mathematics (NHS) is the first Algerian
25      engineering school in mathematics. It welcomes the best baccalaureate
26      holders from the M, SE and MT streams, and aims to: Train high-level
27      engineers in mathematics; Offer attractive courses for students;
28      Support innovation in large companies; Inform and interact with society o
29      Awarding the engineering degree and giving the possibility of doctoral studie
30    </p>
31
32  </body>
33 </html>
```

```
css_code.css
h1 {
  color: red;
}

#p1 {
  font-size: 1.5em;
  margin-bottom: 10px;
}

#p2 {
  font-size: 1.2em;
}
```

The National School of Artificial Intelligence

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.).

The National School of Mathematics

The national Higher School of Mathematics (NHS) is the first Algerian engineering school in mathematics. It welcomes the best baccalaureate holders from the M, SE and MT streams, and aims to: Train high-level engineers in mathematics; Offer attractive courses for students; Support innovation in large companies; Inform and interact with society on all aspects of mathematics; Awarding the engineering degree and giving the possibility of doctoral studies.

# Cascaded Styling Sheets (CSS) — External

You may want to apply some styling properties for different tagged items. You could then use the concept of class. You define classes in the CSS file and specify for each HTML tag which class you want to apply:

The screenshot displays a development environment with two tabs open in a browser.

**Left Tab (CSS\_Explained):**

The browser window shows the generated HTML output. It features two main sections: "The National School of Artificial Intelligence" and "The National School of Mathematics". Both sections have an orange header bar. The first section contains text about the school's mission and its focus on AI and data sciences. The second section contains text about the school's focus on mathematics and engineering.

**Right Tab (CSS\_Example):**

This tab shows the original HTML code with CSS classes applied. The code includes:

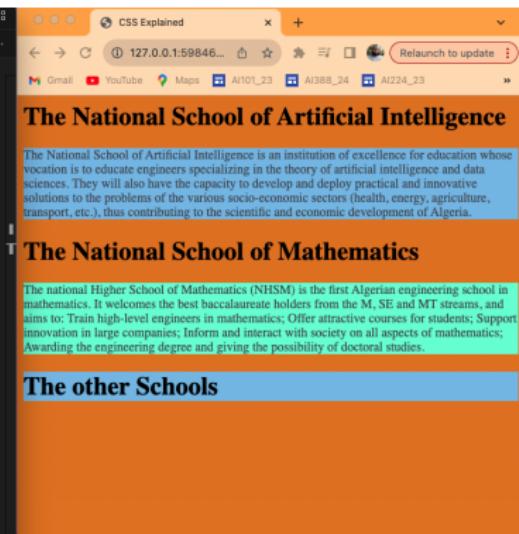
```

<html>
  <head>
    <title>CSS Explained</title>
    <link rel="stylesheet" href="css_code.css">
  </head>
  <body>
    <h1>The National School of Artificial Intelligence</h1>
    <p class="blue_par">
      The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.)
    </p>
    <h1>The National School of Mathematics</h1>
    <p class="green_par">
      The national Higher School of Mathematics (NHSN) is the first Algerian engineering school in mathematics. It welcomes the best baccalaureate holders from the M, SE and MT streams, and aims to: Train high-level engineers in mathematics; Offer attractive courses for students; Support innovation in large companies; Inform and interact with society on all aspects of mathematics; Awarding the engineering degree and giving the possibility of doctoral studies
    </p>
    <h1 class="blue_par">The other Schools</h1>
  </body>
</html>

```

# Cascaded Styling Sheets (CSS) — External

You may want to apply some styling properties for different tagged items. You could then use the concept of class. You define classes in the CSS file and specify for each HTML tag which class you want to apply:



The screenshot shows a code editor on the left and a browser window on the right.

**Code Editor (VS Code):**

```
# CSS_Example
Welcome > index.html # css_code.css
# css_code.css
body {
    background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
}
h1 {
    color: black;
}
.blue_par{
    background-color: #rgb(136, 188, 233);
}
.green_par{
    background-color: #aqua;
```

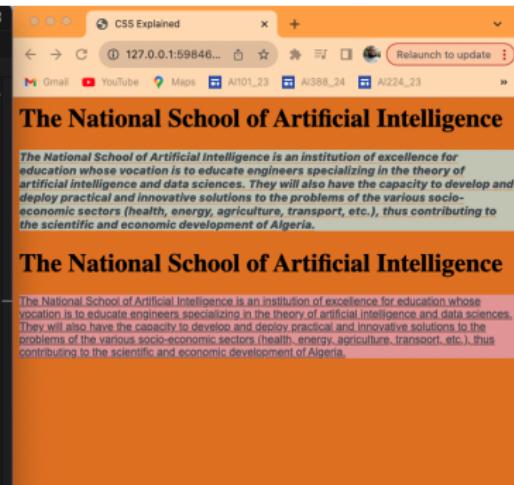
**Browser Window:**

The browser displays three cards:

- The National School of Artificial Intelligence**:  
The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria.
- The National School of Mathematics**:  
The national Higher School of Mathematics (NHSM) is the first Algerian engineering school in mathematics. It welcomes the best baccalaureate holders from the M, SE and MT streams, and aims to: Train high-level engineers in mathematics; Offer attractive courses for students; Support innovation in large companies; Inform and interact with society on all aspects of mathematics; Awarding the engineering degree and giving the possibility of doctoral studies.
- The other Schools**

# CSS Properties (Font)

You can change the font of your text to whatever you want:



The screenshot shows a code editor on the left and a browser window on the right. The code editor displays a CSS file with the following content:

```
#css_code.css
body {
    background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
}

h1 {
    color: black;
}

.yel_par{
    background-color: #rgb(201, 203, 187);
    font-family: system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI', Roboto, sans-serif;
    font-weight: 800;
    font-style: oblique;
    text-decoration: #rgb(220, 126, 11) dotted underline;
    font-size: 14px;
}

.gra_par{
    background-color: #rgb(226, 168, 168);
    font-family: Arial, Helvetica, sans-serif;
    font-weight: 300;
    font-style: unset;
    text-decoration: #rgb(61, 52, 41) underline;
    font-size: 14px;
}
```

The browser window shows the National School of Artificial Intelligence logo with the text "The National School of Artificial Intelligence" in bold black font. The background of the page is orange (#ffccbc).

# CSS Properties (Borders)

You can customize the borders of your HTML elements:

The screenshot shows a web browser window with three examples of CSS borders applied to different HTML elements. The first example is a solid black border around a `h1` element. The second example is a dashed border around a `.yel_par` element. The third example is a double border around a `.gra_par` element. The fourth example is a groove border around a `.bla_par` element.

**Code Snippet:**

```
# css_code.css > ...
body{
    background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
}
h1{
    color: black;
}
.yel_par{
    border-style: dashed;
}
.gra_par{
    border-style: double;
}
.bla_par{
    border-style: groove;
}
```

**Example 1: National School of Artificial Intelligence (H1 Element)**

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria.

**Example 2: National School of Artificial Intelligence (P Element)**

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria.

**Example 3: National School of Artificial Intelligence (P Element)**

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria.

# CSS Properties (Borders)

You can customize the borders of your HTML elements:

The image shows a code editor on the left and a web browser on the right. The code editor displays a CSS file named 'css\_code.css' with the following content:

```
# css_code.css
body {
    background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
}
h1 {
    color: black;
}
.yel_par{
    border-style: dashed;
    border-width: 5px;
}
.gra_par{
    border-style: double;
    border-width: 5px;
}
.bla_par{
    border-style: groove;
    border-width: 5px;
}
```

The browser window shows a page titled 'The National School of Artificial Intelligence'. The page content is:

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria.

The page title is repeated below the content. The browser's address bar shows '127.0.0.1:59846...' and the status bar indicates 'Relaunch to update'.

# CSS Properties (Borders)

You can customize the borders of your HTML elements:

The screenshot shows a web browser window with three tabs, each displaying the same HTML content: "The National School of Artificial Intelligence". The browser's address bar shows the URL as 127.0.0.1:59846... . The browser interface includes standard navigation buttons (back, forward, search) and a tab bar with multiple open tabs.

The left side of the image shows a code editor window titled "CSS\_Example" containing a CSS file named "css\_code.css". The CSS code defines four classes: "body", "h1", ".yel\_par", and ".bla\_par". The "body" class sets a background color and text color. The "h1" class sets the text color to black. The ".yel\_par" class uses dashed borders with a width of 5px and a gold border color. The ".bla\_par" class uses groove borders with a width of 5px and a gold border color.

The three instances of the page in the browser show the following results:

- The first instance has a solid black border around the paragraph content.
- The second instance has a dashed gold border around the paragraph content.
- The third instance has a groove gold border around the paragraph content.

```
# css_code.css > #bla_par
1 body{
2     background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
3 }
4
5
6 h1{
7     color: #black;
8 }
9
10 .yel_par{
11     border-style: dashed;
12     border-width: 5px;
13     border-color: #gold;
14 }
15
16 .gra_par{
17     border-style: double;
18     border-width: 5px;
19     border-color: #gold;
20 }
21
22 .bla_par{
23     border-style: groove;
24     border-width: 5px;
25     border-color: #gold;
26 }
```

# CSS Properties (Borders)

You can customize the borders of your HTML elements:

The screenshot shows a web browser window with three examples of CSS borders applied to paragraph elements. On the left, the code editor displays the CSS code for these examples.

**Code Editor (VS Code):**

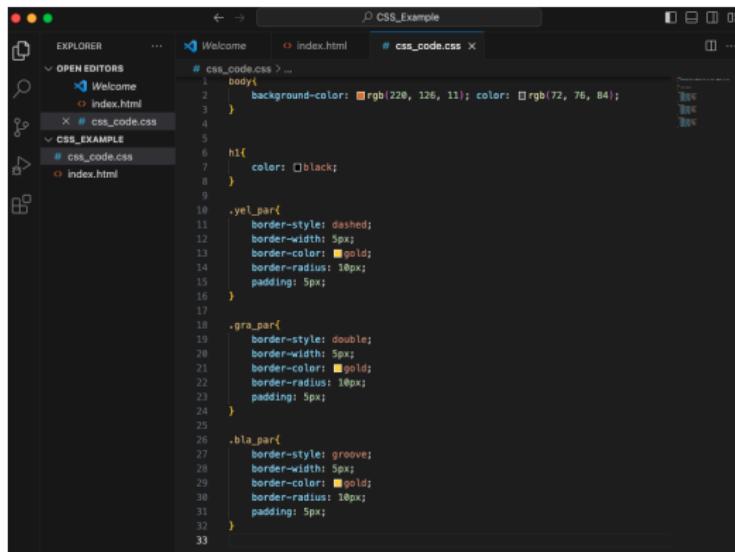
```
# css_code.css > --  
body {  
    background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);  
}  
  
h1 {  
    color: #black;  
}  
  
.yel_par{  
    border-style: dashed;  
    border-width: 5px;  
    border-color: #gold;  
    border-radius: 10px;  
}  
  
.gra_par{  
    border-style: double;  
    border-width: 5px;  
    border-color: #gold;  
    border-radius: 10px;  
}  
  
.bla_par{  
    border-style: groove;  
    border-width: 5px;  
    border-color: #gold;  
    border-radius: 10px;  
}
```

**Browser Examples:**

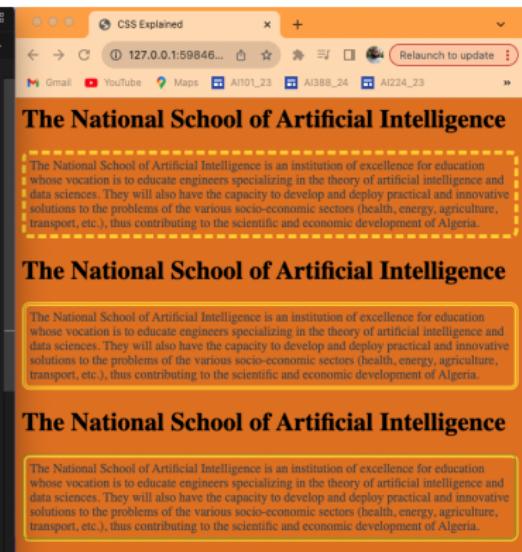
- The National School of Artificial Intelligence**: A heading with a solid black border.
- The National School of Artificial Intelligence**: A paragraph with a dashed gold border.
- The National School of Artificial Intelligence**: A paragraph with a double gold border.
- The National School of Artificial Intelligence**: A paragraph with a groove gold border.

# CSS Properties (Background Image)

You can customize the background of your HTML elements and use images:



```
# css_code.css > ...
1  body{
2      background-color: #rgb(220, 126, 11); color: #rgb(72, 76, 84);
3  }
4
5
6  h1{
7      color: #black;
8  }
9
10 .yel_par{
11     border-style: dashed;
12     border-width: 5px;
13     border-color: #gold;
14     border-radius: 10px;
15     padding: 5px;
16 }
17
18 .gra_par{
19     border-style: double;
20     border-width: 5px;
21     border-color: #gold;
22     border-radius: 10px;
23     padding: 5px;
24 }
25
26 .bla_par{
27     border-style: groove;
28     border-width: 5px;
29     border-color: #gold;
30     border-radius: 10px;
31     padding: 5px;
32 }
33 
```



The National School of Artificial Intelligence

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria.

The National School of Artificial Intelligence

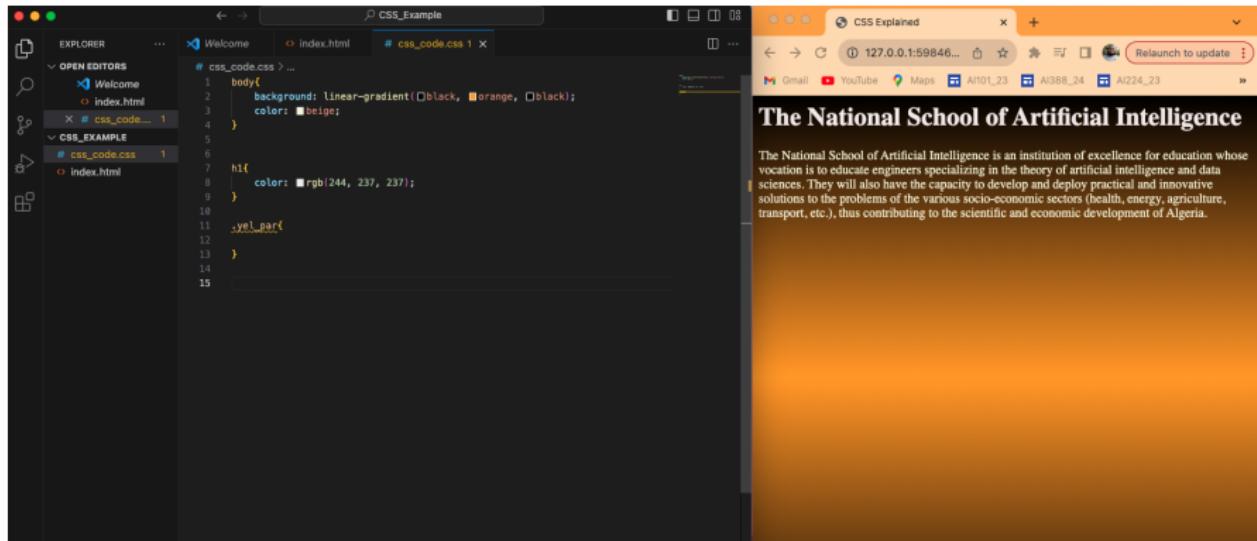
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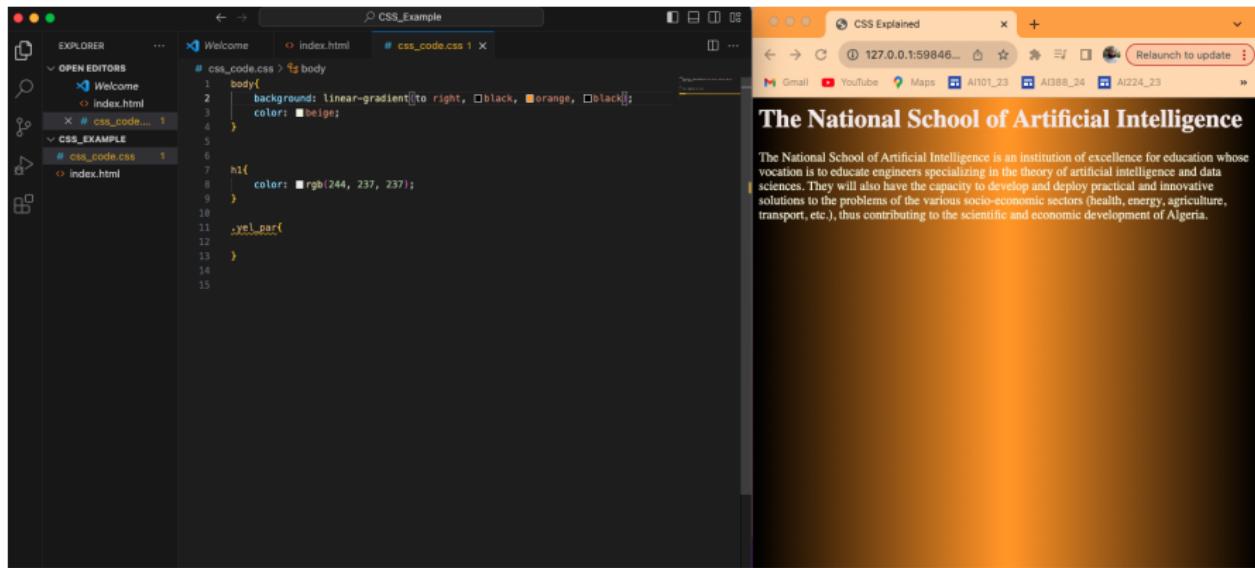
# CSS Properties (Background Image)

You can customize the background of your HTML elements and use images:



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# CSS Properties (Background Image)

You can customize the background of your HTML elements and use images:

The image shows a code editor on the left and a browser window on the right. The code editor displays a file named `css_code.css` with the following CSS code:

```
# css_code.css > .ensia_par
body{
    background: linear-gradient(to right, black, orange, black);
    color: beige;
}

h1{
    color: #rgb(244, 237, 237);
}

.ensia_par{
    color: yellow;
    background: linear-gradient(to right, #rgb(197, 21, 21), #rgb(52, 69, 2));
}

.ensia_par{
    color: black;
    background: linear-gradient(to right, #rgb(109, 239, 10), #rgb(18, 285,
```

The browser window shows two web pages. The first page, titled "CSS Explained", has a yellow background and contains the text "The National School of Artificial Intelligence". The second page, also titled "CSS Explained", has an orange gradient background and contains the text "The National School of Mathematics". Both pages have a red header bar at the top.

# CSS Properties (Background Image)

You can customize the background of your HTML elements and use images:

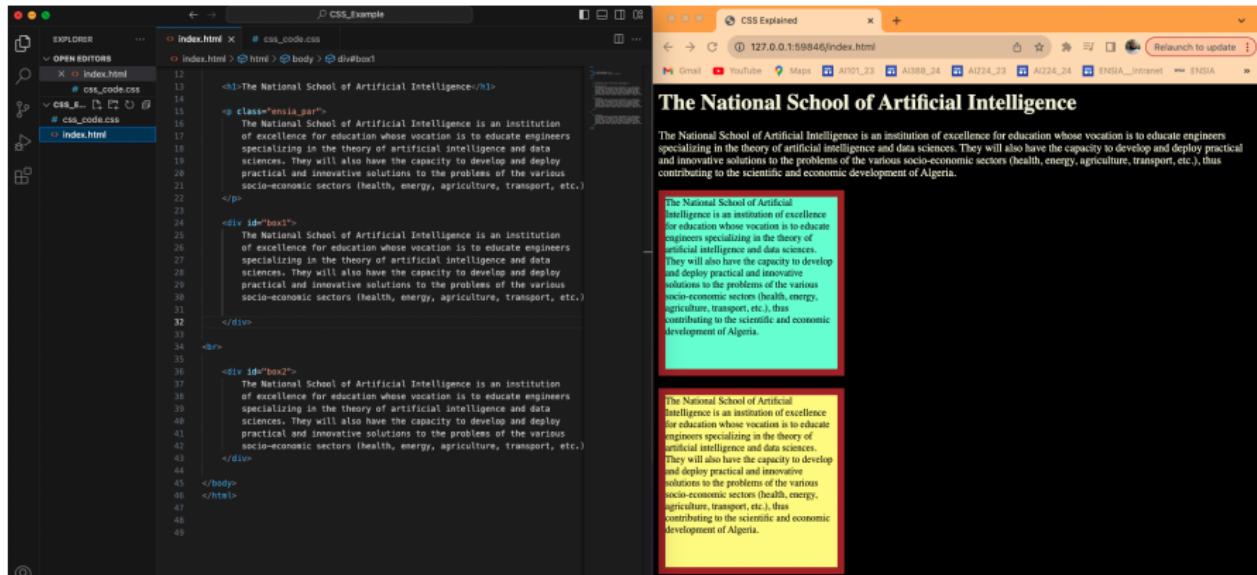
The image shows a code editor on the left and a browser window on the right. The code editor displays the following CSS code in a file named `css_code.css`:

```
body {  
    background-image: url("ensia_bg.png");  
    background-position: center;  
    background-size: cover;  
    color: beige;  
}  
  
.ensia_park{  
    border: 2px;  
    background: linear-gradient(to top, black, orange, black);  
}
```

The browser window shows a screenshot of a website for "The National School of Artificial Intelligence". The header of the site includes the text "The National School of Artificial Intelligence" and "المدرسة الوطنية العليا لذكاء الاصطناعي". The background of the page features a large image of a modern building with glass windows, and the overall design uses a blue and orange color scheme.

# CSS Properties (Margines)

You can customize margins of your HTML elements:



The screenshot shows a browser window titled "CSS Explained" displaying the content of "index.html". The page title is "The National School of Artificial Intelligence". The content consists of two main sections, each enclosed in a red border. The first section has a yellow background and contains the following text:

```

<h1>The National School of Artificial Intelligence</h1>
<p>The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.)</p>

```

The second section has a blue background and contains the same text. This illustrates how different margin settings (represented by the red borders) affect the visual presentation of the same content.

Here, we are just creating two div boxes to customize.

# CSS Properties (Margines)

You can customize margins of your HTML elements:

The screenshot shows a code editor on the left and a browser window on the right.

**Code Editor (Left):**

```
index.html
css_code.css

body {
    background-color: black;
    color: beige;
}

#box1 {
    border: 10px solid;
    border-color: brown;
    width: 250px;
    height: 250px;
    font-size: 14px;
    background-color: cyan;
    color: black;
}

#box2 {
    border: 10px solid;
    border-color: brown;
    width: 250px;
    height: 250px;
    font-size: 14px;
    background-color: #rgb(255, 253, 127);
    color: black;
}
```

**Browser Window (Right):**

The National School of Artificial Intelligence

The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria.

The browser window displays the content of index.html, which includes the CSS styles defined in css\_code.css. The page features two boxes: one with a solid brown border and a cyan background, and another with a solid brown border, a yellow background (#rgb(255, 253, 127)), and a smaller font size.

# CSS Properties (Margines)

You can customize margins of your HTML elements:

The screenshot shows a code editor on the left and a browser window on the right. The code editor displays the following CSS code:

```
index.html # css_code.css
css_code.css > body
body {
    background-color: black;
    color: beige;
}

#box1 {
    border: 10px solid;
    border-color: brown;
    width: 250px;
    height: 250px;
    font-size: 14px;
    background-color: aquamarine;
    color: black;
}

#box2 {
    border: 10px solid;
    border-color: brown;
    width: 250px;
    height: 250px;
    font-size: 14px;
    background-color: rgb(255, 253, 127);
    color: black;
}
```

The browser window shows two red-bordered boxes. The first box (#box1) has a black background and beige text. The second box (#box2) has a yellow background and black text.

# CSS Properties (Margines)

You can customize margins of your HTML elements:

The screenshot shows a code editor on the left and a browser window on the right. The code editor displays the following CSS code in a file named `css_code.css`:

```
body{ background-color: black; color: beige; margin: 0px; }#box1{ border: 10px solid; border-color: brown; width: 250px; height: 250px; font-size: 14px; background-color: #aqua; color: black; }#box2{ border: 10px solid; border-color: brown; width: 250px; height: 250px; font-size: 14px; background-color: #rgb(255, 253, 127); color: black; }
```

The browser window shows two identical boxes with the text "The National School of Artificial Intelligence is an institution of excellence for education whose vocation is to educate engineers specializing in the theory of artificial intelligence and data sciences. They will also have the capacity to develop and deploy practical and innovative solutions to the problems of the various socio-economic sectors (health, energy, agriculture, transport, etc.), thus contributing to the scientific and economic development of Algeria." The first box has a light blue background, and the second box has a yellow background.

# CSS Properties (Margines)

You can customize margins of your HTML elements:

The screenshot shows a code editor (VS Code) and a browser window side-by-side. The code editor displays the following CSS code:

```
css_code.css
1 body{
2     background-color: black;
3     color: beige;
4     margin: 8px;
5 }
6
7 #box1{
8     border: 3px solid;
9     border-color: brown;
10    width: 25px;
11    height: 25px;
12    font-size: 14px;
13    background-color: aquamarine;
14    color: black;
15    padding: 8px;
16 }
17
18 #box2{
19     border: 3px solid;
20     border-color: brown;
21     width: 25px;
22     height: 25px;
23     font-size: 14px;
24     background-color: #rgb(255, 253, 127);
25     color: black;
26     padding: 8px;
27 }
28
29
30
```

The browser window shows two red-bordered boxes labeled #box1 and #box2. The #box1 box has a light blue background and black text. The #box2 box has a yellow background and black text. Both boxes have a 8px margin.

# CSS Properties (Margines)

You can customize margins of your HTML elements:

The image shows a code editor on the left and a browser window on the right. The code editor displays the following CSS code:

```
css_code.css
body {
    background-color: black;
    color: white;
    margin: 0px;
}

#box1 {
    border: 10px solid;
    border-color: brown;
    width: 250px;
    height: 250px;
    font-size: 16px;
    background-color: #e6f2ff;
    color: black;
    padding: 30px;
    margin-top: 10px;
    margin-left: 50px;
}

#box2 {
    border: 10px solid;
    border-color: brown;
    width: 250px;
    height: 250px;
    font-size: 16px;
    background-color: #rgb(255, 253, 127);
    color: black;
    padding: 30px;
    margin-top: 40px;
    margin-left: 150px;
}
```

The browser window shows two red-bordered boxes. The first box (#box1) has a black background and white text, with a margin of 0px. The second box (#box2) has a yellow background and black text, with a margin of 40px top and 150px left.

# CSS Properties (Float)

Float property are used to position elements with respect to other elements. You could use this for example to wrap an image with text:

The screenshot shows two browser windows side-by-side. The left window displays the CSS code in a file named 'css\_code.css':

```
# css_code.css > ...
1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7 #imgcss{
8     float: left;
9 }
10
11
12
```

The right window shows the resulting HTML page. It features a dark-colored Chevrolet Chevelle muscle car on the left, and to its right is a block of descriptive text about the Chevelle. The text is styled with a light beige font and a black background.

The descriptive text reads:

The Chevy Chevelle is a classic American muscle car that gained prominence during the 1960s and 1970s, representing a blend of sleek design and robust performance. Launched by Chevrolet as a mid-sized vehicle, the Chevelle underwent several generations, evolving in style and power. Known for its iconic, muscular stance and a range of potent V8 engine options, the Chevelle captured the spirit of the golden era of American muscle cars. Whether as a stylish street cruiser or a formidable contender on the drag strip, the Chevy Chevelle remains a symbol of automotive nostalgia, cherished by enthusiasts for its timeless design and the raw power it brought to the roads.

The image of the Chevelle is a classic two-door coupe, shown from a front-three-quarter angle.

# CSS Properties (Float)

Float property are used to position elements with respect to other elements. You could use this for example to wrap an image with text:

The screenshot shows a browser window with two tabs: 'index.html' and 'css\_code.css'. The 'css\_code.css' tab contains the following CSS code:

```
# css_code.css > ...
body{
    background-color: black;
    color: beige;
    margin: 0px;
}
#imgcss{
    float: right;
}
```

The 'index.html' tab displays a paragraph of text about the Chevy Chevelle and an image of a dark-colored 1960s muscle car.

The text in the paragraph is:

The Chevy Chevelle is a classic American muscle car that gained prominence during the 1960s and 1970s, representing a blend of sleek design and robust performance. Launched by Chevrolet as a mid-sized vehicle, the Chevelle underwent several generations, evolving in style and power. Known for its iconic, muscular stance and a range of potent V8 engine options, the Chevelle captured the spirit of the golden era of American muscle cars. Whether as a stylish street cruiser or a formidable contender on the drag strip, the Chevy Chevelle remains a symbol of automotive nostalgia, cherished by enthusiasts for its timeless design and the raw power it brought to the roads.

The image is a photograph of a dark-colored 1960s Chevrolet Chevelle SS, shown from a front-three-quarter angle.

# CSS Properties (Float)

Float property are used to position elements with respect to other elements. You could use this for example to wrap an image with text:

The image shows two browser windows side-by-side. The left window, titled 'CSS Example', displays the code for 'index.html' and 'css\_code.css'. The right window, titled 'CSS Explained', displays the rendered output of the CSS code.

**index.html**

```
<!DOCTYPE html>
<html>
  <head>
    <title>CSS Explained</title>
    <link rel="stylesheet" href="css_code.css">
  </head>
  <body>
    <div class="box1">Square 1</div>
    <div class="box2">Square 2</div>
    <div class="box3">Square 3</div>
    <p>CSS, or Cascading Style Sheets, is a fundamental component of web development.</p>
    <p>CSS, or Cascading Style Sheets, is a fundamental component of web development.</p>
    <p>CSS, or Cascading Style Sheets, is a fundamental component of web development.</p>
  </body>
</html>
```

**css\_code.css**

```
.box1 {float: left; width: 30%; height: 150px; background-color: red; color: white; padding: 10px; margin-right: 10px; border: 1px solid black; border-radius: 10px; text-align: center; font-size: 1.2em; font-weight: bold; line-height: 1.5; margin-bottom: 10px;}
```

**CSS Explained**

Square 1  
Square 2  
Square 3

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

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# CSS Properties (Float)

Float property are used to position elements with respect to other elements.  
You could use this for example to wrap an image with text:

```

index.html
# css_code.css
body {
    background-color: black;
    color: beige;
    margin: 0px;
}

.box {
    width: 170px;
    height: 170px;
    border: 1px solid;
    font-size: 27px;
    text-align: center;
    background: #rgb(19, 55, 4);
}

```

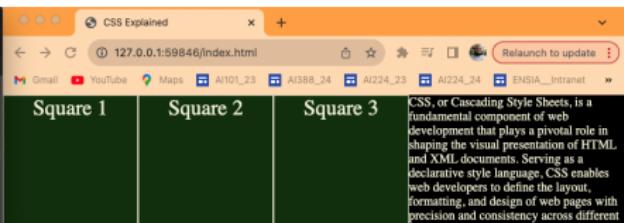
The browser window displays a 3x3 grid of dark green squares. Each square contains a white text label: "Square 1" in the top-left, "Square 2" in the middle-left, and "Square 3" in the bottom-left. The other squares in the grid are empty.

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# CSS Properties (Float)

Float property are used to position elements with respect to other elements. You could use this for example to wrap an image with text:



```
# CSS_Example
# css_code.css > ↗ .box
1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7 .box{
8     width: 178px;
9     height: 178px;
10    border: 1px solid;
11    font-size: 27px;
12    text-align: center;
13    background: #rgb(19, 55, 4);
14    float: left;
15 }
16 }
```

The screenshot shows a browser window titled "CSS Explained" displaying a 3x3 grid of squares. The first two columns are filled with text ("Square 1", "Square 2", "Square 3") while the third column is empty. This illustrates how floating elements can be used to wrap content around other elements.

**CSS Explained**

127.0.0.1:59846/index.html

Square 1 | Square 2 | Square 3

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# CSS Properties (Float)

Float property are used to position elements with respect to other elements.  
You could use this for example to wrap an image with text:

The screenshot shows a browser window with two tabs: 'index.html' and 'css\_code.css'. The 'css\_code.css' tab contains the following CSS code:

```

body{
    background-color: black;
    color: beige;
    margin: 0px;
}

.box{
    width: 170px;
    height: 170px;
    border: 1px solid;
    font-size: 27px;
    text-align: center;
    background: #rgb(19, 55, 4);
    float: left;
}

p{
    clear: left;
}

```

The 'index.html' tab shows a visual representation of three floating boxes labeled 'Square 1', 'Square 2', and 'Square 3' arranged horizontally.

**CSS Explained**

127.0.0.1:59846/index.html

Square 1 | Square 2 | Square 3

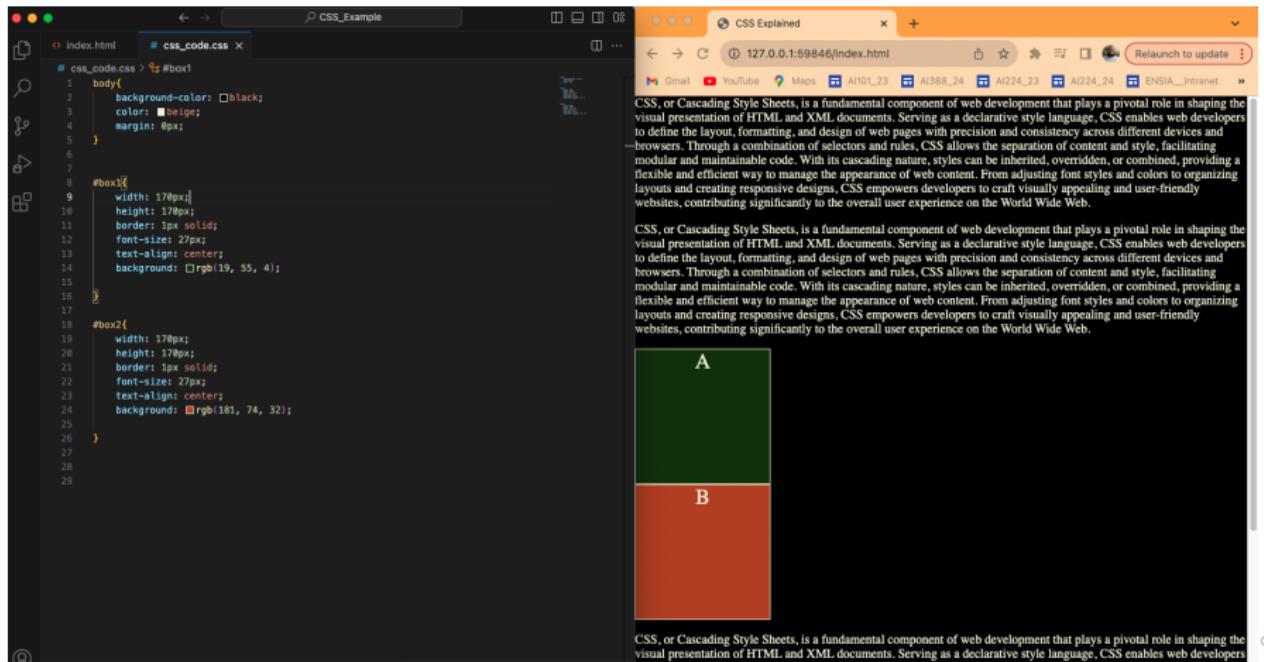
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# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and sticky:



The screenshot shows a browser window with two tabs. The left tab is titled 'CSS\_Example' and contains the file 'index.html'. The right tab is titled 'CSS Explained' and contains the file 'index.html'. The code in both files is identical:

```

1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7 #box1{
8     width: 170px;
9     height: 170px;
10    border: 1px solid;
11    font-size: 27px;
12    text-align: center;
13    background: #rgb(19, 55, 4);
14 }
15
16 #box2{
17     width: 170px;
18     height: 170px;
19     border: 1px solid;
20     font-size: 27px;
21     text-align: center;
22     background: #rgb(181, 74, 32);
23 }
24
25
26
27
28
29

```

The visual output consists of two overlapping boxes. Box A is a dark green square at the top, and Box B is an orange-red square at the bottom. Both boxes have white text centered inside them.

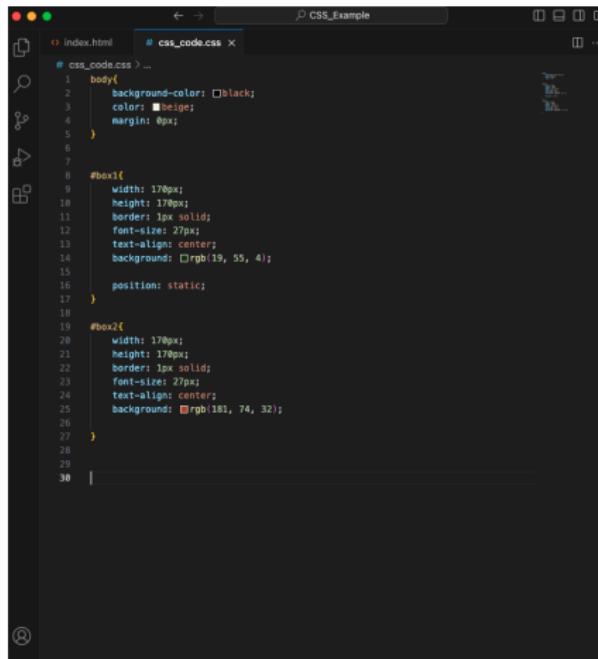
**CSS Explained**

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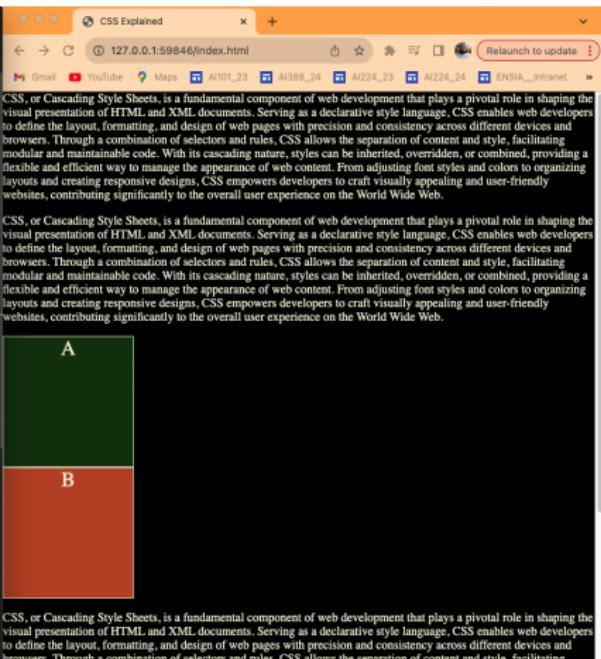
# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: **static**, relative, absolute, fixed, and sticky:



```
# css_code.css
1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7 #box1{
8     width: 170px;
9     height: 170px;
10    border: 1px solid;
11    font-size: 27px;
12    text-align: center;
13    background: #rgb(19, 55, 4);
14
15    position: static;
16 }
17
18 #box2{
19     width: 170px;
20     height: 170px;
21     border: 1px solid;
22     font-size: 27px;
23     text-align: center;
24     background: #rgb(181, 74, 32);
25
26 }
27
28
29
30 |
```

The screenshot shows a code editor with the file `css_code.css` open. It contains CSS rules for two elements, `#box1` and `#box2`. Both boxes have a width and height of 170px, a central text alignment, and a background color. The difference lies in their `position` property: `#box1` uses `position: static;` while `#box2` uses `position: absolute;`.



The browser window displays the visual result of the CSS styles. Box A, which has a static position, is positioned above Box B. Box B, which has an absolute position, is positioned below Box A. Both boxes are centered within their respective containers.

**CSS Explained**

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

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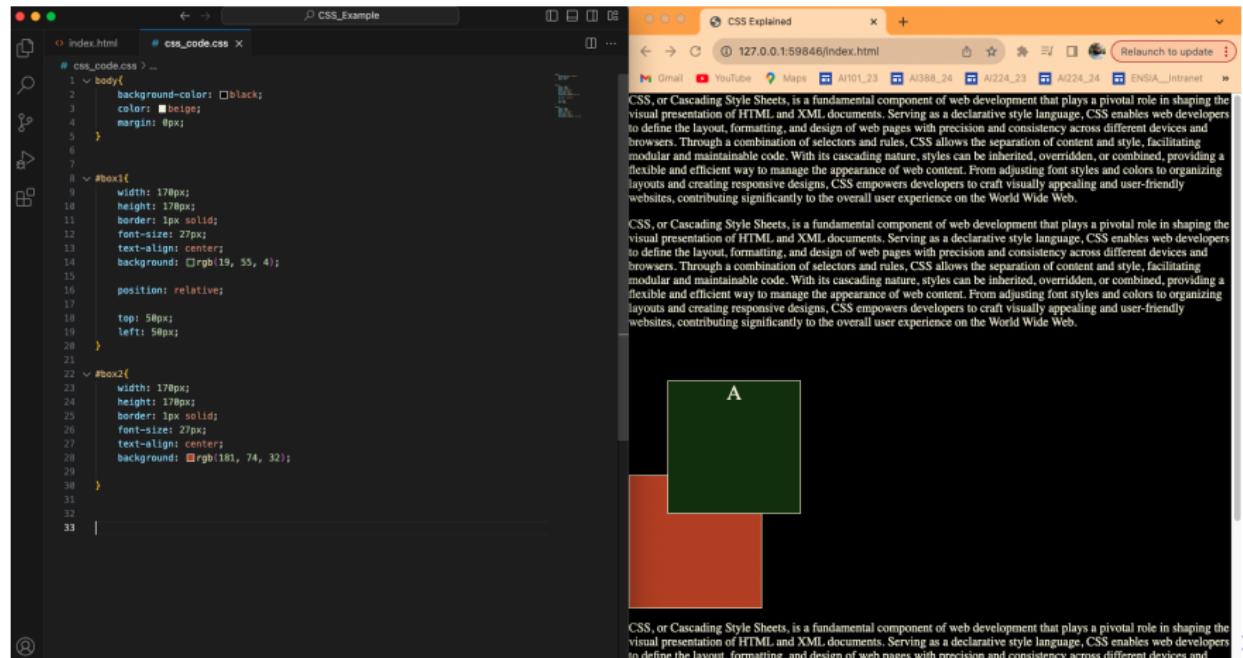
A

B

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# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, **relative**, absolute, fixed, and sticky:



```
# css_code.css
1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7
8 #box1{
9     width: 170px;
10    height: 170px;
11    border: 1px solid;
12    font-size: 27px;
13    text-align: center;
14    background: #rgb(19, 55, 4);
15
16    position: relative;
17
18    top: 50px;
19    left: 50px;
20 }
21
22 #box2{
23     width: 170px;
24     height: 170px;
25     border: 1px solid;
26     font-size: 27px;
27     text-align: center;
28     background: #rgb(181, 74, 32);
29
30
31
32 }
```

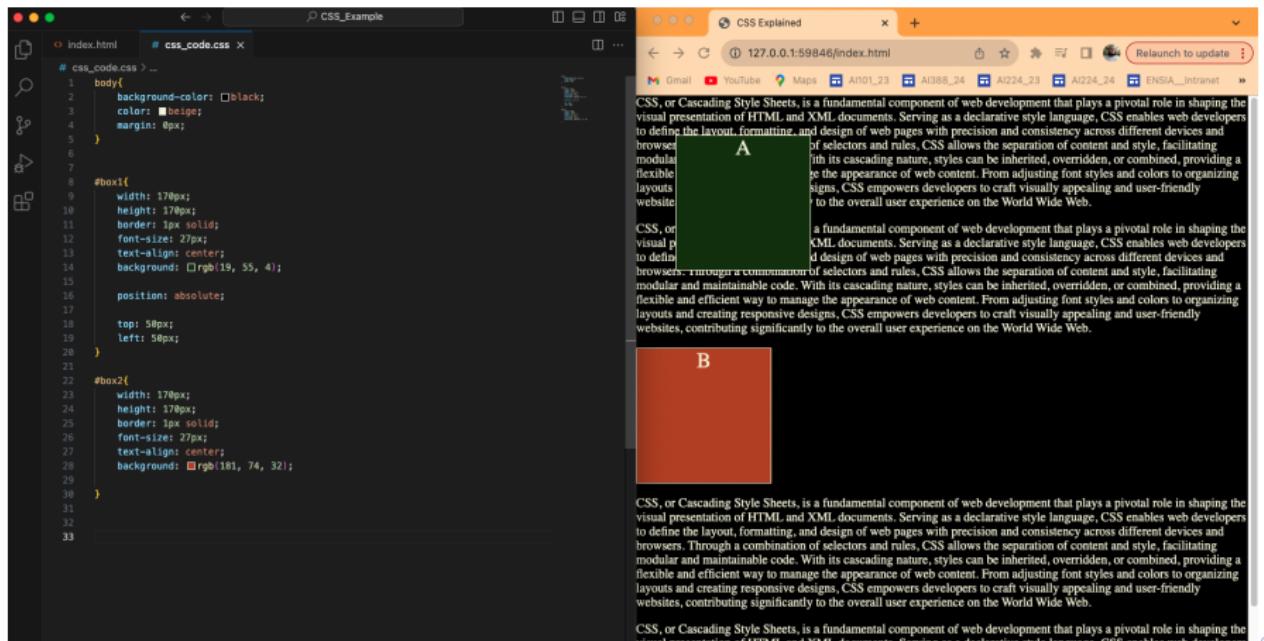
**CSS Explained**

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# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, **absolute**, fixed, and sticky:



The screenshot shows a browser window titled "CSS\_Example" containing two code files: "index.html" and "css\_code.css". The "css\_code.css" file contains the following CSS rules:

```

# css_code.css > ...
body {
    background-color: black;
    color: beige;
    margin: 0px;
}

#box1 {
    width: 170px;
    height: 170px;
    border: 1px solid;
    font-size: 27px;
    text-align: center;
    background: #rgb(19, 55, 4);
    position: absolute;
    top: 50px;
    left: 50px;
}

#box2 {
    width: 170px;
    height: 170px;
    border: 1px solid;
    font-size: 27px;
    text-align: center;
    background: #rgb(181, 74, 32);
}

```

The "index.html" file displays two red squares, one at (50px, 50px) and another at (170px, 170px), representing the absolute positioned boxes.

On the right, a separate browser window titled "CSS Explained" shows a detailed explanation of CSS:

**A**

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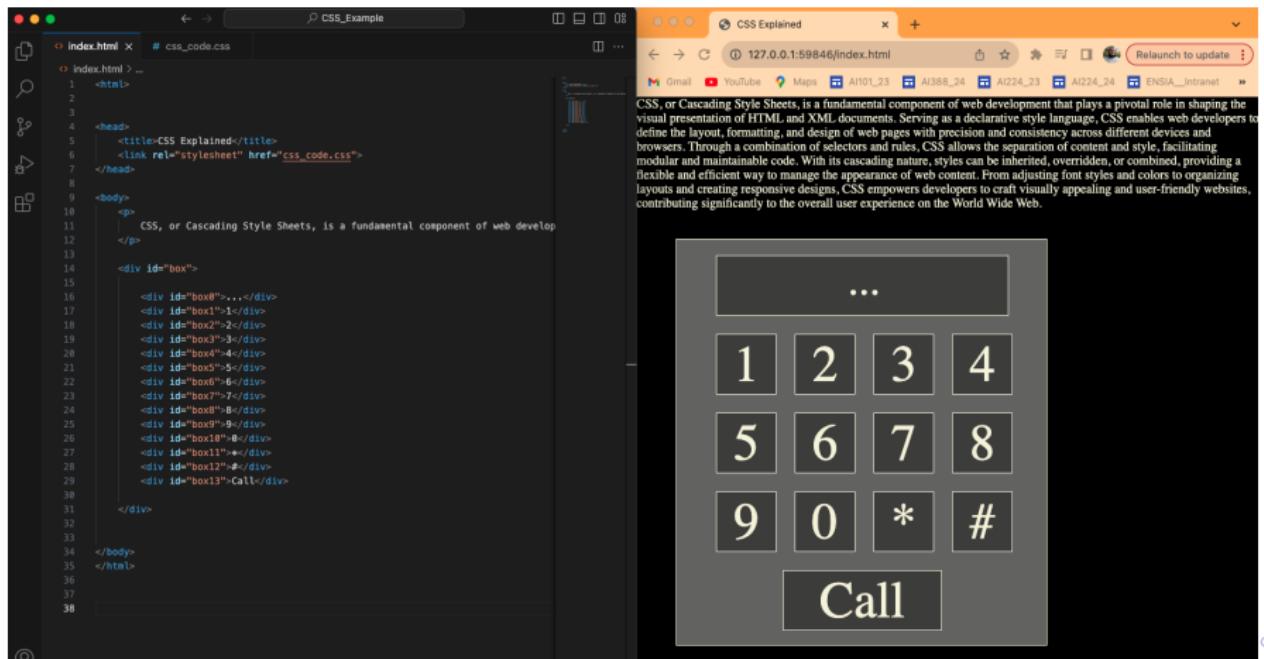
**B**

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# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and sticky:



The image shows a screenshot of a browser window with two tabs. The left tab is titled "CSS\_Example" and contains the following HTML and CSS code:

```
<html>
  <head>
    <title>CSS Explained</title>
    <link rel="stylesheet" href="css_code.css">
  </head>
  <body>
    CSS, or Cascading Style Sheets, is a fundamental component of web development
  </body>
</html>
```

The right tab is titled "CSS Explained" and displays a grid of 12 boxes labeled 1 through 9, \*, and #, with a "Call" button at the bottom. The CSS for this grid is as follows:

```
CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.
```

The grid layout is defined by the following CSS:

```
.grid {
  display: flex;
  flex-wrap: wrap;
  justify-content: space-around;
}

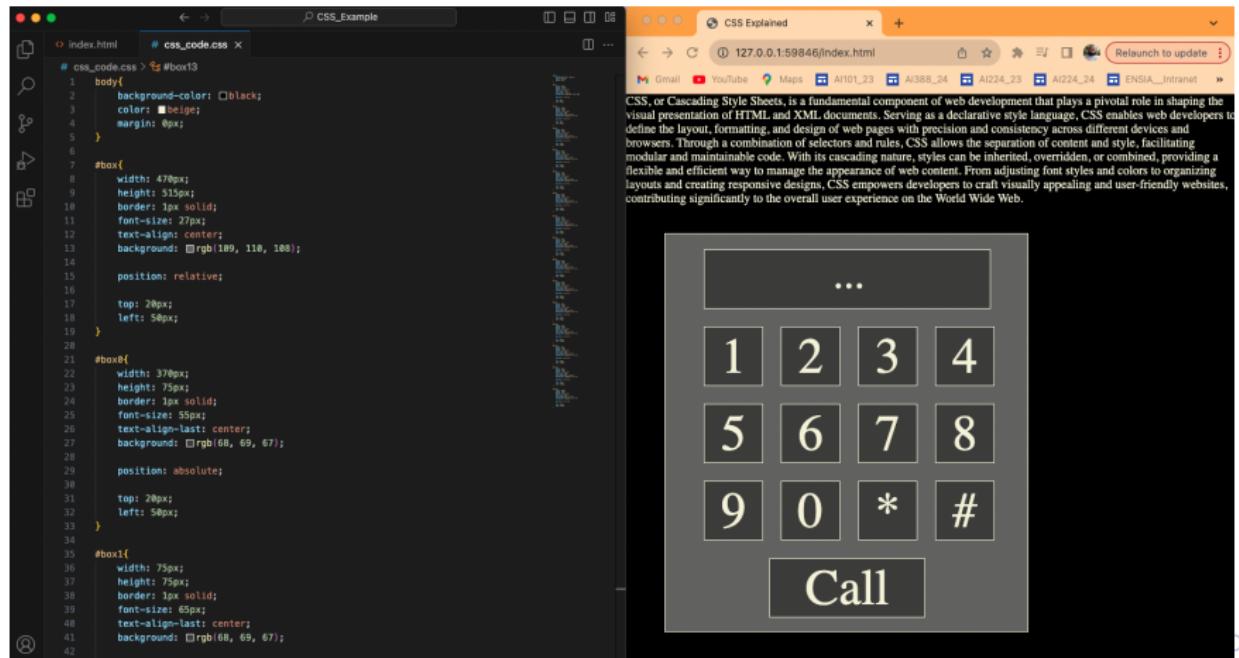
.grid-item {
  width: 25px;
  height: 25px;
  border: 1px solid black;
  margin: 5px;
}
```

The "Call" button is defined by the following CSS:

```
.call-button {
  width: 100px;
  height: 50px;
  background-color: white;
  border: 1px solid black;
  border-radius: 5px;
  padding: 10px;
  text-align: center;
  font-size: 16px;
}
```

# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and sticky:



The image shows two windows side-by-side. On the left is a code editor with an open file named 'css\_code.css' containing CSS code for three boxes: #box1, #box2, and #box3. The code defines styles for body, #box1, #box2, and #box3, including colors, margins, widths, heights, borders, font sizes, text alignments, and positions (relative, absolute). On the right is a browser window titled 'CSS Explained' displaying a page about CSS. Below the browser is a graphic of a mobile phone keypad with numbers 1-9, \*, #, and a 'Call' button.

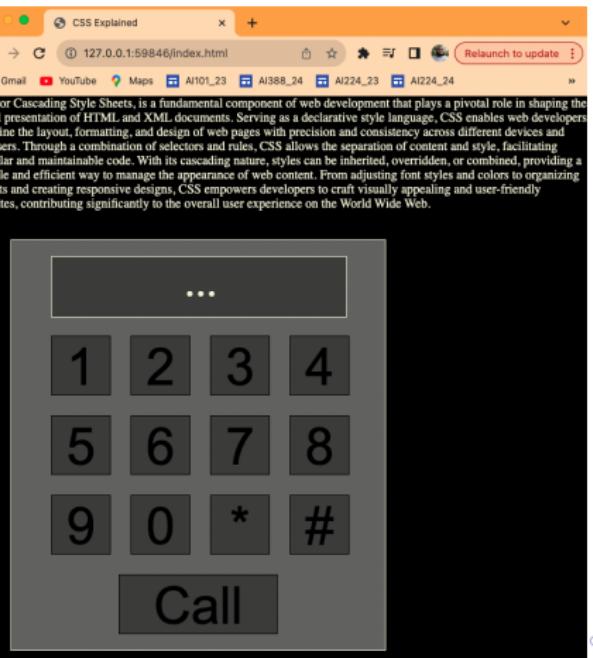
```

index.html # css_code.css
# css_code.css > #box1
1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7 #box1{
8     width: 470px;
9     height: 515px;
10    border: 1px solid;
11    font-size: 27px;
12    text-align: center;
13    background: #rgb(109, 110, 108);
14
15    position: relative;
16
17    top: 20px;
18    left: 50px;
19 }
20
21 #box2{
22     width: 370px;
23     height: 75px;
24     border: 1px solid;
25     font-size: 55px;
26     text-align: last;
27     background: #rgb(68, 69, 67);
28
29     position: absolute;
30
31     top: 20px;
32     left: 50px;
33 }
34
35 #box3{
36     width: 75px;
37     height: 75px;
38     border: 1px solid;
39     font-size: 65px;
40     text-align: last;
41     background: #rgb(68, 69, 67);
42 }

```

# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and sticky:



The screenshot shows a digital keypad interface. It features a grid of 12 buttons arranged in four rows. The top row has three buttons labeled '...', '1', '2', '3', and '4'. The second row has four buttons labeled '5', '6', '7', and '8'. The third row has three buttons labeled '9', '0', '\*', and '#'. The bottom row has one large button labeled 'Call'. The entire keypad is set against a dark gray background.

```

index.html X # css_code.css
index.html > html > body > div#box > button#box4
1 <html>
2
3
4 <head>
5   <title>CSS Explained</title>
6   <link rel="stylesheet" href="css_code.css">
7 </head>
8
9 <body>
10   <p> CSS, or Cascading Style Sheets, is a fundamental component of web development
11   </p>
12
13   <div id="box">
14     <div id="box0">...</div>
15     <button id="box1" type="button">1</button>
16     <button id="box2" type="button">2</button>
17     <button id="box3" type="button">3</button>
18     <button id="box4" type="button">4</button>
19     <button id="box5" type="button">5</button>
20     <button id="box6" type="button">6</button>
21     <button id="box7" type="button">7</button>
22     <button id="box8" type="button">8</button>
23     <button id="box9" type="button">9</button>
24     <button id="box10" type="button">0</button>
25     <button id="box11" type="button">*</button>
26     <button id="box12" type="button">#</button>
27     <button id="box13" type="button">Call</button>
28
29   </div>
30
31 </body>
32
33
34 </html>
35
36
37
38

```

# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and sticky:

The screenshot shows a browser window with two tabs. The left tab is titled 'CSS\_Example' and contains the following CSS code:

```

index.html      # CSS_Example
css_code.css    # CSS Explained
body{
  background-color: black;
  color: beige;
  margin: 0px;
}

#box1{
  width: 470px;
  height: 515px;
  border: 1px solid;
  font-size: 1px solid;
  text-align: center;
  background: #rgb(109, 110, 108);
  position: fixed;
  top: 0px;
  right: 0px;
}

#box0{
  width: 370px;
  height: 75px;
  border: 1px solid;
  font-size: 55px;
  text-align: center;
  background: #rgb(68, 69, 67);
  position: absolute;
  top: 28px;
  left: 58px;
}

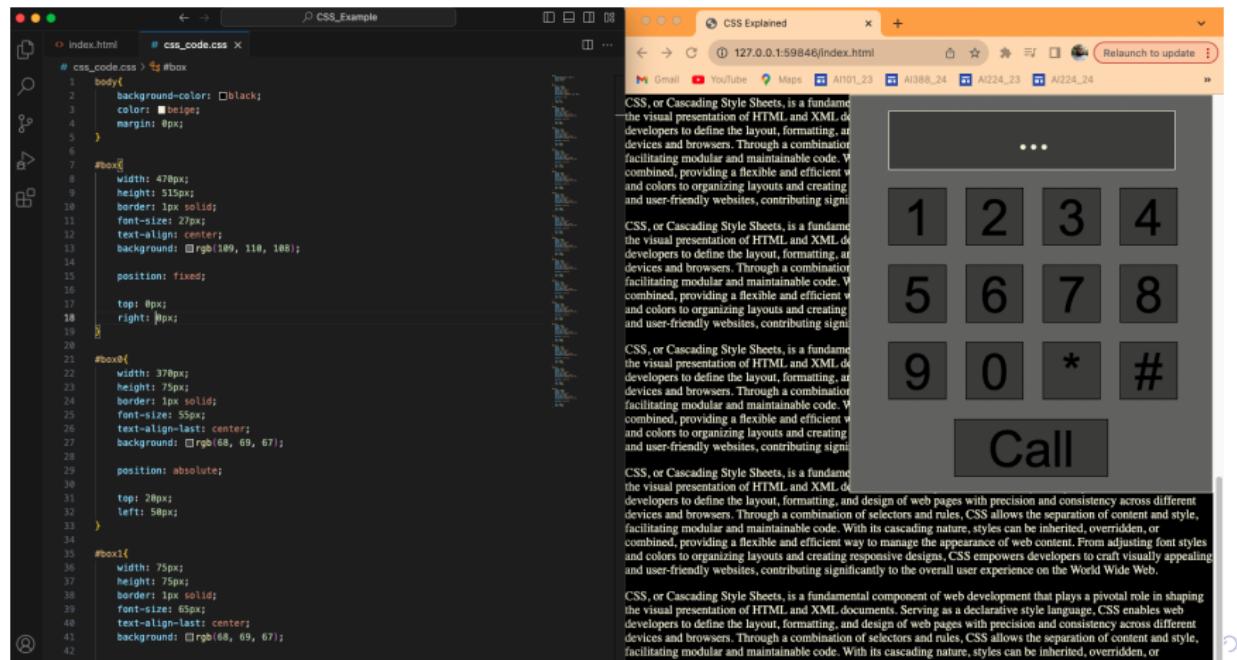
#box3{
  width: 75px;
  height: 75px;
  border: 1px solid;
  font-size: 6px;
  text-align: center;
  background: #rgb(68, 69, 67);
  position: absolute;
}

```

The right tab is titled 'CSS Explained' and displays a dark gray background with a 3x3 grid of light gray boxes containing numbers 1 through 9, an asterisk (\*), and a hash (#). Below the grid is a large light gray box with the word 'Call' in it.

# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and sticky:

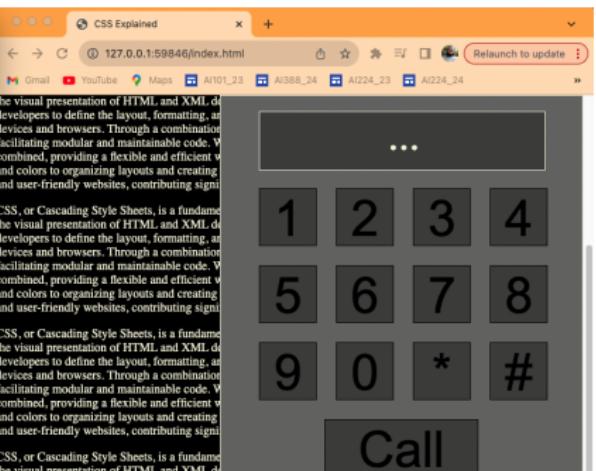


The screenshot shows two windows side-by-side. On the left is a code editor with the file #css\_code.css containing CSS code for three divs: #box, #box@, and #box@. On the right is a browser window titled 'CSS Explained' showing a grid of numbers from 0 to 9 and symbols (\*, #) arranged in a 4x3 grid, with a 'Call' button at the bottom right.

```
# css_code.css
1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7 #box{
8     width: 470px;
9     height: 515px;
10    border: 1px solid;
11    font-size: 27px;
12    text-align: center;
13    background: #rgb(189, 118, 188);
14
15    position: fixed;
16
17    top: 8px;
18    right: 0px;
19 }
20
21 #box@{
22     width: 370px;
23     height: 75px;
24     border: 1px solid;
25     font-size: 55px;
26     text-align: last; center;
27     background: #rgb(68, 69, 67);
28
29     position: absolute;
30
31     top: 28px;
32     left: 50px;
33 }
34
35 #box@{
36     width: 75px;
37     height: 75px;
38     border: 1px solid;
39     font-size: 65px;
40     text-align: last; center;
41     background: #rgb(68, 69, 67);
```

# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and sticky:



```

Index.html      CSS_Example
css_code.css
body{
    background-color: black;
    color: beige;
    margin: 0px;
}

#box{
    width: 470px;
    height: 515px;
    border: 1px solid;
    font-size: 27px;
    text-align: center;
    background: #rgb(189, 110, 108);

    position: fixed;
    top: 8px;
    right: 8px;
}

#box@{
    width: 370px;
    height: 75px;
    border: 1px solid;
    font-size: 55px;
    text-align-last: center;
    background: #rgb(68, 69, 67);

    position: absolute;
    top: 28px;
    left: 58px;
}

#box@{
    width: 75px;
    height: 75px;
    border: 1px solid;
    font-size: 65px;
    text-align-last: center;
    background: #rgb(68, 69, 67);
}

```

The visual presentation of HTML and XML documents allows developers to define the layout, formatting, and styling of web pages across different devices and browsers. Through a combination of selectors and rules, CSS empowers developers to create visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

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# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and **sticky**:

The screenshot shows a code editor and a browser window side-by-side.

**Code Editor:** The file is named `index.html`. It includes a CSS file named `# css_code.css`. The CSS contains three rules for elements `#box`, `#box0`, and `#box1`. The `#box` rule sets a width of 470px, height of 515px, border of 1px solid black, font-size of 27px, text-align of center, and a background color of `rgb(109, 110, 108)`. It also sets `position: sticky;` and `top: 0px;`. The `#box0` rule sets a width of 370px, height of 75px, border of 1px solid black, font-size of 55px, text-align-last of center, and a background color of `rgb(68, 69, 67)`. It also sets `position: absolute;`, `top: 20px;`, and `left: 50px;`. The `#box1` rule sets a width and height of 75px, border of 1px solid black, font-size of 65px, text-align-last of center, and a background color of `rgb(68, 69, 67)`.

**Browser Preview:** The browser window is titled "CSS Explained". It shows a grid of 12 boxes labeled 1 through 9, \*, and #. Above the grid, there is a text block about CSS's role in web development, mentioning its separation of content and style, and its ability to empower developers to create visually appealing and user-friendly websites. Below the text is a diagram of a mobile phone keypad.

# CSS Properties (Positioning)

You can position elements using CSS wherever you want in the webpage. There are various positionning attributes though: static, relative, absolute, fixed, and **sticky**:

The image shows a code editor on the left and a browser window on the right. The code editor displays CSS code for styling a numeric keypad. The browser window shows a numeric keypad grid with numbers 1-9, a call button, and a hash button, all styled using CSS properties like position, top, left, width, height, border, font-size, and background-color.

```

index.html      ↗ CSS_Example
# css_code.css ×
# css_code.css #box
1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7 #box{
8     width: 470px;
9     height: 515px;
10    border: 1px solid;
11    font-size: 27px;
12    text-align: center;
13    background: #rgb(189, 110, 108);
14
15    position: sticky;
16
17    top: 0px;
18 }
19
20 #box0{
21     width: 370px;
22     height: 75px;
23     border: 1px solid;
24     font-size: 55px;
25     text-align-last: center;
26     background: #rgb(68, 69, 67);
27
28     position: absolute;
29
30     top: 20px;
31     left: 50px;
32 }
33
34 #box1{
35     width: 75px;
36     height: 75px;
37     border: 1px solid;
38     font-size: 65px;
39     text-align-last: center;
40     background: #rgb(68, 69, 67);
41 }
```

The browser window title is "CSS Explained". The page URL is "127.0.0.1:59846/index.html". The page content shows a numeric keypad grid with numbers 1-9, a call button, and a hash button, all styled using CSS properties like position, top, left, width, height, border, font-size, and background-color.

**Call**

Development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

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# CSS Properties (Pseudo-class)

You can use pseudo-classes, which are “sub-tags” of HTML tags:

The image shows a code editor on the left and a web browser on the right. The code editor displays two files: 'Index.html' and '# css\_code.css'. The CSS file contains the following code:

```
# css_code.css > ...
body{
  background-color: black;
  color: beige;
  margin: 0px;
}
```

The browser window shows a dark-themed page with white text and a light-colored background, demonstrating the styles defined in the CSS file. The browser title bar says 'CSS Explained'.

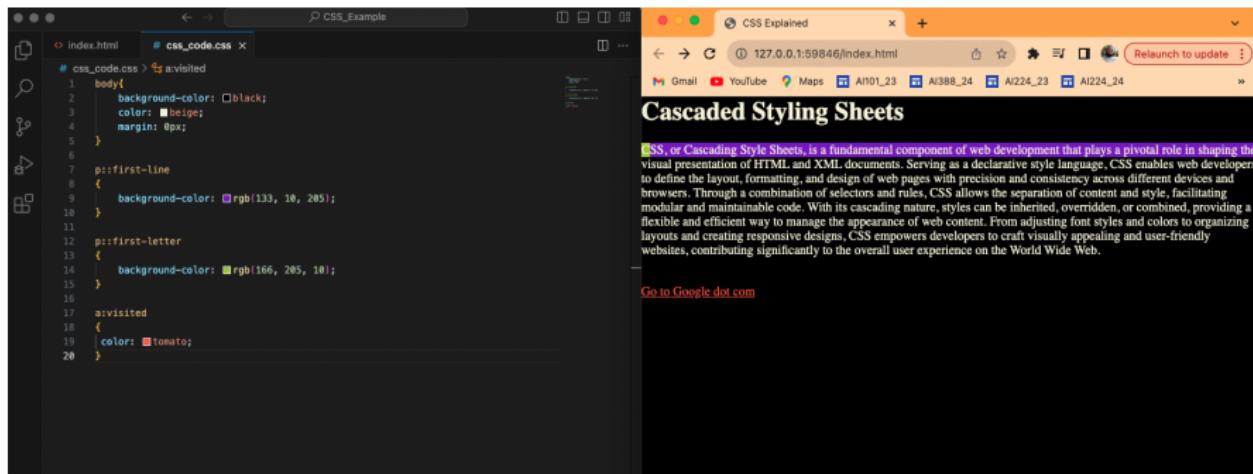
**Cascaded Styling Sheets**

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

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# CSS Properties (Pseudo-class)

You can use pseudo-classes, which are “sub-tags” of HTML tags:



The image shows a code editor on the left and a web browser on the right. The code editor displays the following CSS code:

```
# css_code.css
body {
    background-color: black;
    color: beige;
    margin: 0px;
}

p::first-line {
    background-color: #rgb(133, 18, 285);
}

p::first-letter {
    background-color: #rgb(166, 205, 10);
}

a:visited {
    color: #tomato;
}
```

The browser window shows the rendered HTML page with the following styling applied:

- The body has a black background and beige text.
- The first line of each paragraph has a background color of #rgb(133, 18, 285).
- The first letter of each paragraph has a background color of #rgb(166, 205, 10).
- Visited links are colored #tomato.

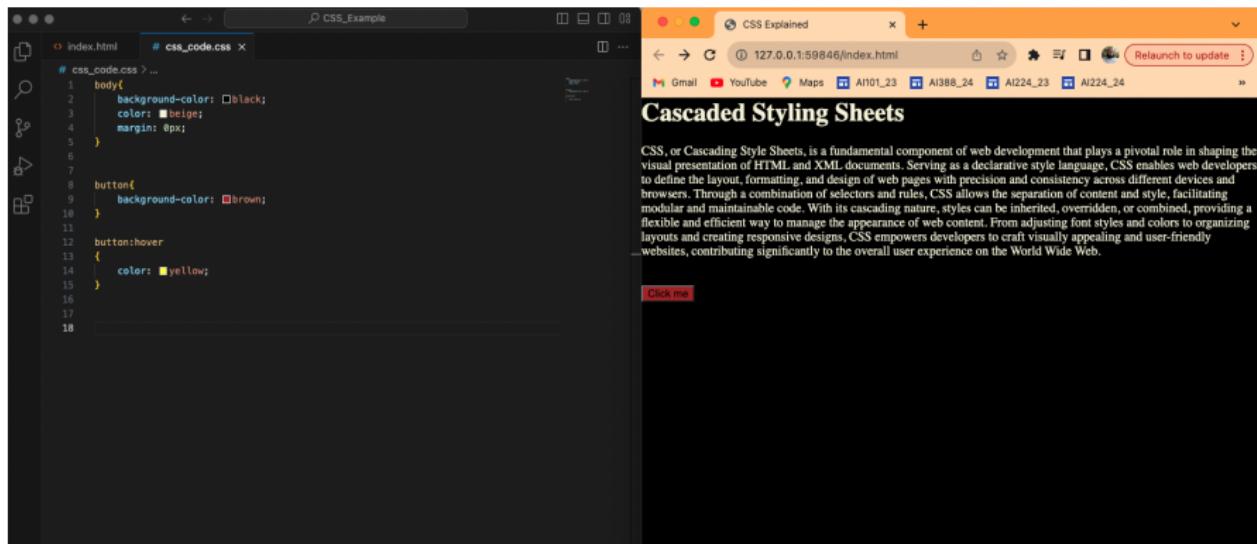
The browser title bar says "CSS Explained" and the address bar shows "127.0.0.1:59846/index.html". The page content includes a heading "Cascaded Styling Sheets" and a paragraph about CSS.

**CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.**

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# CSS Properties (Pseudo-class)

You can use pseudo-classes, which are “sub-tags” of HTML tags:



The screenshot shows a browser window with two tabs. The left tab is titled "CSS\_Example" and contains the following CSS code in "css\_code.css":

```
# css_code.css > ...
1 body{
2     background-color: black;
3     color: beige;
4     margin: 0px;
5 }
6
7 button{
8     background-color: brown;
9 }
10
11 button:hover{
12 {
13     color: yellow;
14 }
15 }
16
17
18
```

The right tab is titled "CSS Explained" and shows the result of the CSS applied to an "index.html" file. The page has a black background and white text. A button is present, and when the cursor hovers over it, the text color changes to yellow.

# CSS Properties (Pseudo-class)

You can use pseudo-classes, which are “sub-tags” of HTML tags:

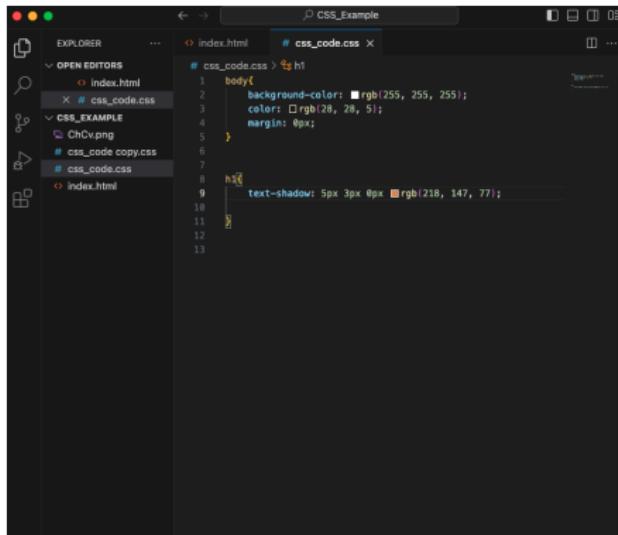
The image shows a split-screen environment. On the left, a code editor displays the file `# css_code.css` with the following CSS code:

```
body{ background-color: black; color: beige; margin: 0px; } button{ background-color: brown; } button:hover{ color: yellow; }
```

On the right, a web browser window titled "CSS Explained" shows the rendered HTML page at `127.0.0.1:59846/index.html`. The browser interface includes a toolbar with icons for back, forward, search, and refresh, and a tab bar with multiple open tabs. The main content area displays the text "Cascaded Styling Sheets" and a paragraph about CSS. Below the paragraph is a red button labeled "Click me".

# CSS Properties (Shadows)

You can create shadows for items:



The screenshot shows a code editor window titled "CSS\_Example". It displays two files: "index.html" and "# css\_code.css". The "# css\_code.css" file contains the following CSS code:

```
# css_code.css
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 51);
4     margin: 0px;
5 }
6
7 h1{
8     text-shadow: 5px 3px 0px #rgb(218, 147, 77);
9 }
10
11
12 }
```



## Cascaded Styling Sheets

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Shadows)

You can create shadows for items:

The image shows a web browser window with two tabs. The left tab is titled 'CSS\_Example' and contains the following CSS code:

```
# css_code.css ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1{
8     text-shadow: 5px 3px 0px #rgb(231, 213, 21), 0px -5px 5px #rgb(246, 86, 5);
9 }
10
11 }
```

The right tab is titled 'CSS Explained' and shows the result of the CSS applied to an 'h1' element. The heading has a yellow background and a black border. The text 'Cascaded Styling Sheets' is displayed in bold black font.

**CSS Explained** | 127.0.0.1:59846/index.html | Relaunch to update

## Cascaded Styling Sheets

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Shadows)

You can create shadows for items:

The image shows a split-screen view of a web development environment. On the left, a code editor displays the contents of a CSS file named `css_code.css`. The code defines styles for the `body` and `h1:hover` selector. The `body` style sets a white background color and a light gray font color. The `h1:hover` style adds a text shadow with a blue-to-white gradient. On the right, a browser window titled "CSS Explained" shows the result of applying this CSS to an `h1` element. The heading has a blue-to-white text shadow and a light gray background color.

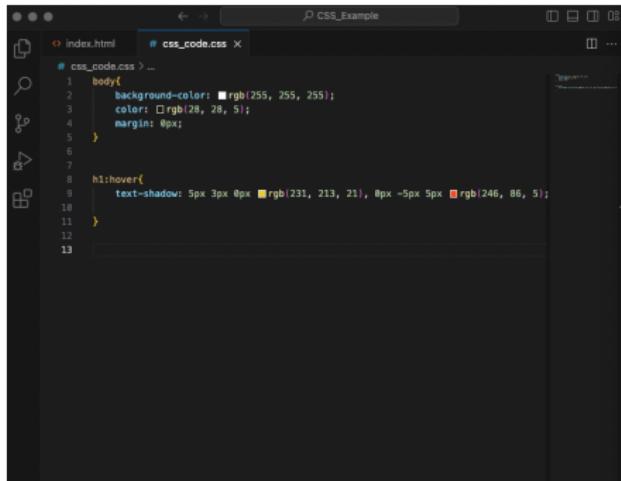
```
index.html # css_code.css
# css_code.css > ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1:hover{
8     text-shadow: 5px 3px 0px #rgb(231, 213, 21), 8px -5px 5px #rgb(246, 86, 5);
9 }
10
11
12
13
```

**Cascaded Styling Sheets**

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Shadows)

You can create shadows for items:



A screenshot of a code editor window titled "CSS\_Example". It shows two files: "index.html" and "# css\_code.css". The "# css\_code.css" file contains the following CSS code:

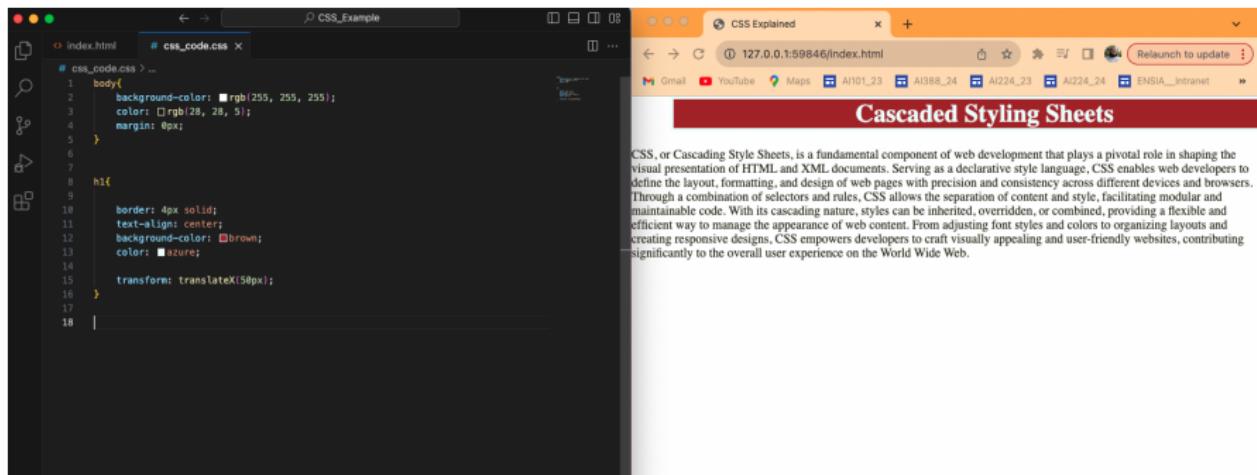
```
# css_code.css > ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1:hover{
8     text-shadow: 5px 3px 0px #rgb(231, 213, 21), 8px -5px 5px #rgb(246, 86, 5);
9 }
10
11
12
13
```



CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Transformations)

You make transformations for items:



The screenshot shows a development environment with two tabs: 'index.html' and '# css\_code.css'. The '# css\_code.css' tab contains the following CSS code:

```
# css_code.css > ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 51);
4     margin: 6px;
5 }
6
7 h1{
8     border: 4px solid;
9     text-align: center;
10    background-color: #brown;
11    color: #azure;
12
13    transform: translateX(50px);
14
15 }
16
17
18 |
```

The browser window shows the rendered HTML with the heading 'Cascaded Styling Sheets' and some styling applied to the body and h1 elements.

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Transformations)

You make transformations for items:

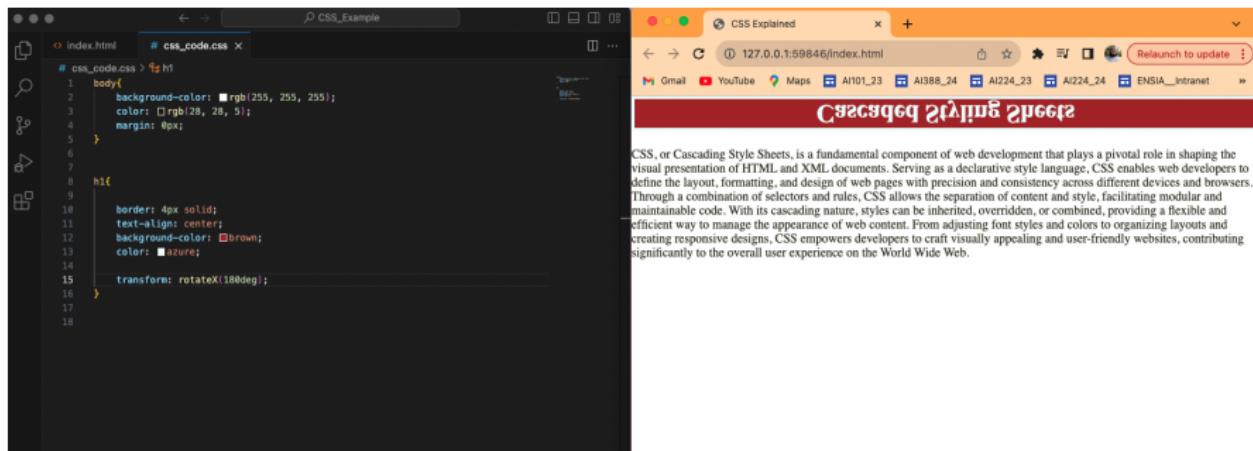
The image shows a split-screen view of a web development environment. On the left, a code editor displays the CSS code for 'css\_code.css'. The code defines styles for the 'body' and 'h1' elements. The 'body' has a white background, black text, and a margin of 0px. The 'h1' element has a brown border, a brown background, blue text, and a blue transform of translateY(50px). On the right, a browser window titled 'CSS Explained' shows the resulting page. The page has a white background, black text, and a brown header bar. A red box highlights the header bar, which contains the title 'Cascaded Styling Sheets'.

```
# css_code.css
body{
    background-color: #fff;
    color: #000;
    margin: 0px;
}

h1{
    border: 4px solid #993333;
    background-color: #993333;
    color: #000;
    transform: translateY(50px);
}
```

# CSS Properties (Transformations)

You make transformations for items:



The image shows a code editor on the left and a browser window on the right. The code editor displays the following CSS code:

```
# css_code.css > ↗ HTML
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 51);
4     margin: 0px;
5 }
6
7 h1{
8     border: 4px solid;
9     text-align: center;
10    background-color: #brown;
11    color: #azure;
12 }
13
14     transform: rotateX(180deg);
15 }
16
17
18
```

The browser window shows a red header bar with the text "CSS Explained". The main content area has a red background color (#brown) and white text color (#azure). The text is centered and has a 4px solid black border.

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Transformations)

You make transformations for items:

The image shows a code editor on the left and a web browser on the right. The code editor displays the following CSS code:

```
# css_code.css > ↗ h1
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7
8 h1{
9
10    border: 4px solid;
11    text-align: center;
12    background-color: #brown;
13    color: #azure;
14
15    transform: rotateY(180deg);
16
17
18 }
```

The browser window shows a single heading element (`<h1>`) with a brown background and white text, centered on the page. The heading has been rotated 180 degrees counter-clockwise, so it appears upside down.

**Cascading Style Sheets**

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Transformations)

You make transformations for items:

The image shows a code editor on the left and a browser window on the right. The code editor displays the contents of a CSS file named `css_code.css`. The browser window shows a red page with the title "Cascaded Styling Sheets".

```
# css_code.css ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1{
8     border: 4px solid;
9     text-align: center;
10    background-color: #brown;
11    color: #blue;
12    transform: scaleY(2);
13 }
14
15
16
17 |
```

The browser window title is "CSS Explained" and the URL is "127.0.0.1:59846/index.html". The page content is "Cascaded Styling Sheets". Below the browser window, there is a descriptive text about CSS.

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Transformations)

You make transformations for items:



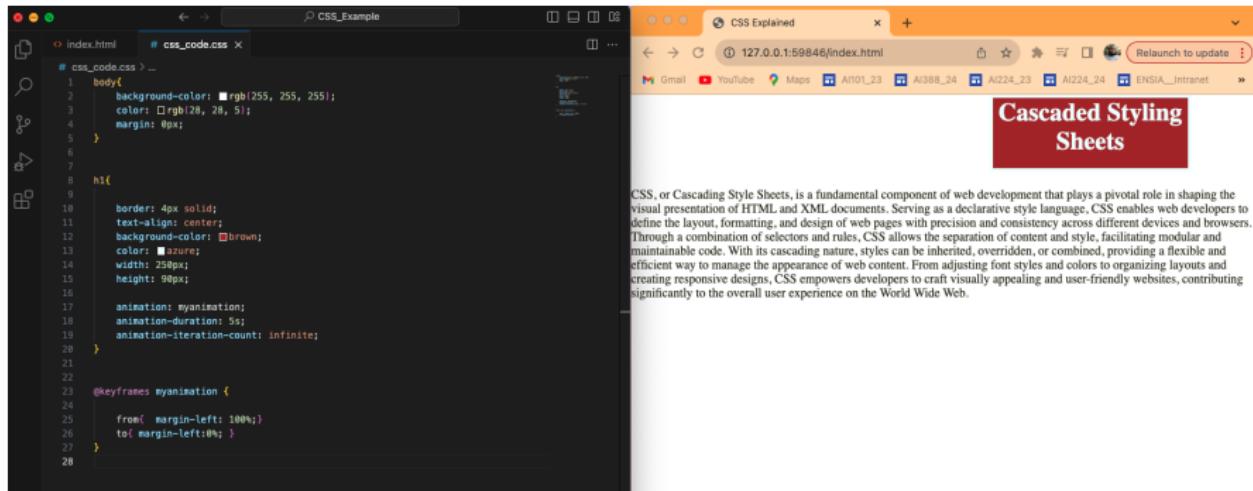
The image shows a screenshot of a web browser window titled "CSS Explained". The address bar shows "127.0.0.1:59846/index.html". The main content area displays the text "Cascaded Styling Sheets" in a large, bold, black font. Below the title, there is a brief explanatory text about CSS.

```
index.html # css_code.css
css_code.css > ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1{
8     border: 4px solid;
9     text-align: center;
10    background-color: #brown;
11    color: #azure;
12    transform: skewX(45deg);
13 }
14
15
16
17 |
```

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Animations)

You add animations for items:



The image shows a screenshot of a browser window. On the left, there is a code editor with two tabs: "index.html" and "# css\_code.css". The "# css\_code.css" tab contains the following CSS code:

```
# css_code.css > ...
1 body {
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1 {
8
9     border: 4px solid;
10    text-align: center;
11    background-color: #brown;
12    color: #blue;
13    width: 250px;
14    height: 90px;
15
16    animation: myanimation;
17    animation-duration: 5s;
18    animation-iteration-count: infinite;
19 }
20
21
22 @keyframes myanimation {
23
24     from { margin-left: 100%; }
25     to { margin-left:0%; }
26 }
27 }
```

On the right, the browser window displays the resulting styling. The page has a white background with black text. A large red header "Cascaded Styling Sheets" is centered. Below it, there is some descriptive text about CSS.

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Animations)

You add animations for items:

The image shows a developer tools interface on the left and a browser window on the right. The developer tools shows the CSS file 'css\_code.css' with the following code:

```
# css_code.css > ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1{
8     border: 4px solid;
9     text-align: center;
10    background-color: #brown;
11    color: #azure;
12    width: 250px;
13    height: 90px;
14
15    animation: myanimation;
16    animation-duration: 5s;
17    animation-iteration-count: infinite;
18 }
19
20 @keyframes myanimation {
21
22     100%{transform: rotateX(180deg);}
23 }
```

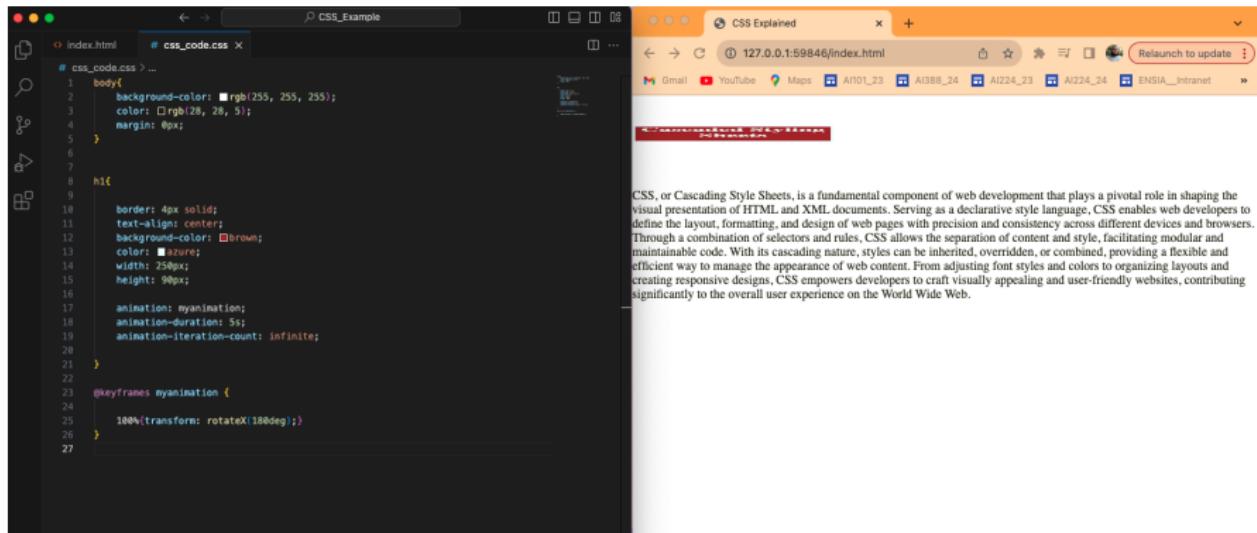
The browser window shows the resulting styling: a red header with the text "Cascaded Styling Sheets". Below it is a white box containing a black border and centered text. The text "Cascaded Styling Sheets" is rotated 180 degrees.

**Cascaded Styling Sheets**

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Animations)

You add animations for items:



The image shows a code editor and a browser side-by-side. The code editor on the left displays the following CSS code:

```
# css_code.css > ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1{
8     border: 4px solid;
9     text-align: center;
10    background-color: #brown;
11    color: #azure;
12    width: 250px;
13    height: 90px;
14
15    animation: myanimation;
16    animation-duration: 5s;
17    animation-iteration-count: infinite;
18
19 }
20
21 @keyframes myanimation {
22
23     100%{transform: rotateX(180deg);}
24
25 }
```

The browser window on the right shows a red 

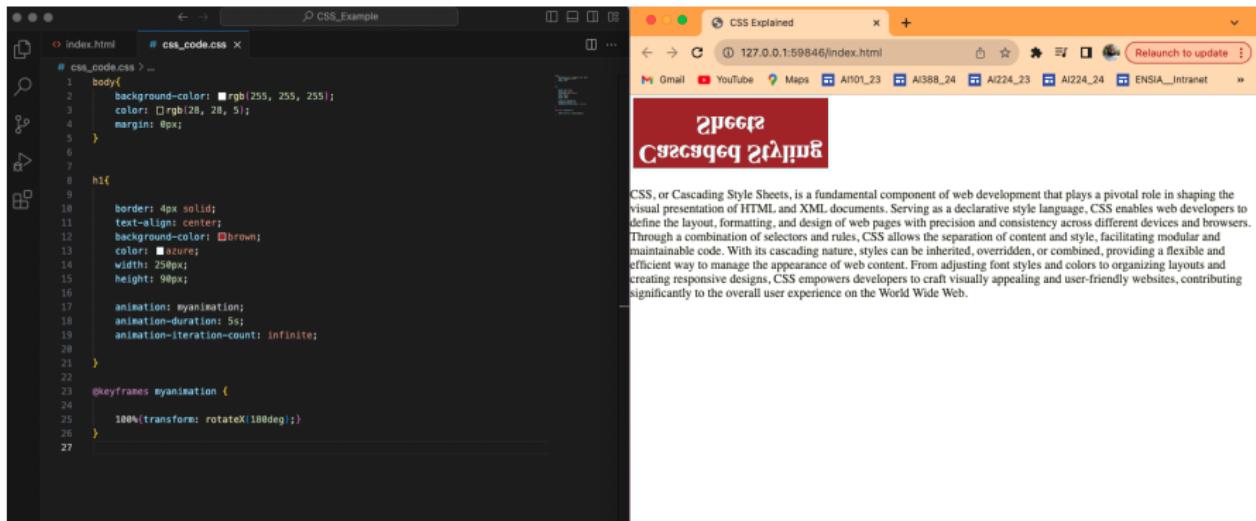
# element with a vertical bar extending from its bottom edge, indicating it is rotating.

**CSS Explained** (127.0.0.1:59846/index.html)

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Animations)

You add animations for items:



The image shows a code editor on the left and a web browser on the right. The code editor displays the following CSS code:

```
index.html # css_code.css > ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
8 h1{
9
10    border: 4px solid;
11    text-align: center;
12    background-color: #brown;
13    color: #azure;
14    width: 250px;
15    height: 90px;
16
17    animation: myanimation;
18    animation-duration: 5s;
19    animation-iteration-count: infinite;
20
21 }
22
23 @keyframes myanimation {
24
25     100%{transform: rotateX(180deg);}
26 }
```

The browser window shows a red header bar with the text "CSS Explained" and a URL "127.0.0.1:59846/index.html". Below the header, there is a large red box containing the word "CSS" repeated twice. A descriptive text block below the box reads:

CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# CSS Properties (Animations)

You add animations for items:

The image shows a developer tools interface on the left and a browser window on the right. The developer tools show the CSS file 'css\_code.css' with the following code:

```
# css_code.css > ...
1 body{
2     background-color: #rgb(255, 255, 255);
3     color: #rgb(28, 28, 5);
4     margin: 0px;
5 }
6
7 h1{
8     border: 4px solid;
9     text-align: center;
10    background-color: #brown;
11    color: #azure;
12    width: 250px;
13    height: 90px;
14
15    animation: myanimation;
16    animation-duration: 5s;
17    animation-iteration-count: infinite;
18 }
19
20 @keyframes myanimation {
21
22     100%{transform: rotateX(180deg);}
23 }
```

The browser window shows the resulting styling for an 'h1' element. The heading has a brown background, a white border, and is centered. It is also animated with a rotation effect.

**Cascaded Styling Sheets**

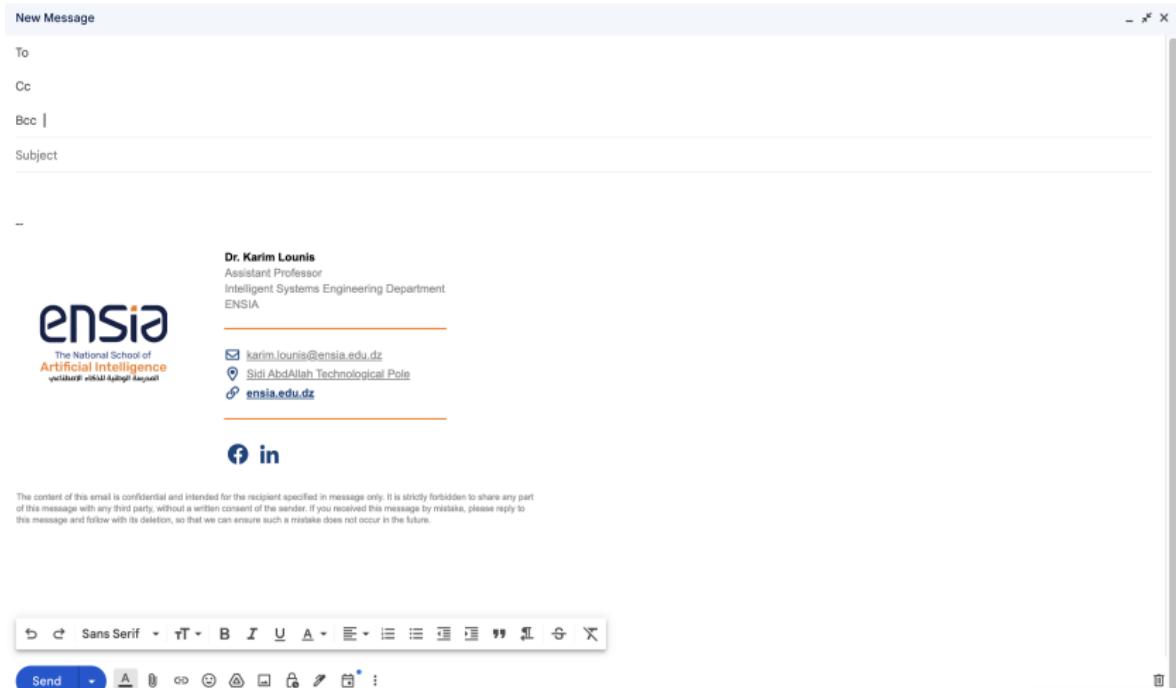
CSS, or Cascading Style Sheets, is a fundamental component of web development that plays a pivotal role in shaping the visual presentation of HTML and XML documents. Serving as a declarative style language, CSS enables web developers to define the layout, formatting, and design of web pages with precision and consistency across different devices and browsers. Through a combination of selectors and rules, CSS allows the separation of content and style, facilitating modular and maintainable code. With its cascading nature, styles can be inherited, overridden, or combined, providing a flexible and efficient way to manage the appearance of web content. From adjusting font styles and colors to organizing layouts and creating responsive designs, CSS empowers developers to craft visually appealing and user-friendly websites, contributing significantly to the overall user experience on the World Wide Web.

# Emails

## Sending Email: Like professional people

## Emails

You may have sent thousands of emails in your life, but did you send them correctly?



# Emails

An email has several fields to fill up:

- **To.** In this field you put the email address of the main person you want to reach out. It is recommended to leave this field at the end.
- **Cc.** In this field you put the email addresses of the persons you want to keep informed (but they are not the main recipients).
- **Bcc.** These are people you want to keep informed but you do not want the others (in To, Cc, and Bcc) to know they are included in a conversation. They will not get responses if replied to the email.
- **Subject.** This is the topic of the email (Why you are sending the email). It should be sound, short, and should tell everything. DO NOT write your email here (That is very bad and unprofessional).
- **Main.** Here you write your email in multiple short paragraphs, be brief and concise.

# Emails

You may have sent thousands of emails in your life, but did you send them correctly?

The screenshot shows an email client interface with the following details:

**Subject:** [Urgent] Reporting the issue of unclean whiteboard

**To:** Karim Lounis (karim.lounis@ensia.edu.dz)

**Cc:** Karim Lounis (karim.lounis@ensia.edu.dz)

**Bcc:** Karim Lounis (karim.lounis@ensia.edu.dz)

**Message Content:**

[Urgent] Reporting the issue of unclean whiteboard

Dear Dr. Lounis:

I hope this email finds you well.

I was writing to complain again about the whiteboard on Amphi 6. As I teach at this location every Sunday, 8:30am, I have noticed a couple of times that the whiteboard was left unclean. As you know, this is perceived as a bad practice and goes against the school's code of conduct.

I know you have sent several reminders regarding this, but the problem is still around as you can see. I trust we can discuss this issue during the next administrative council so that we can find a solution to this problem.

Thank you for looking into this, and I am looking forward to hearing from you soon.

Best regards,

--

**Dr. Karim Lounis**  
Assistant Professor  
Intelligent Systems Engineering Department  
ENSAIA

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[karim.lounis@ensia.edu.dz](mailto:karim.lounis@ensia.edu.dz)  
[Sidi Abdallah Technological Pole](#)  
[ensia.edu.dz](#)

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The email client interface includes a toolbar with icons for font style, size, bold, italic, underline, etc., and a bottom row with buttons for 'Send', 'Save', and other file operations.

- End.