

Part III: CSS

CSS - Introduction

C **S** **S**
Cascading Style Sheets

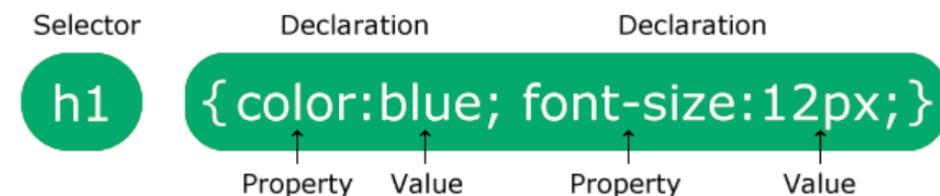
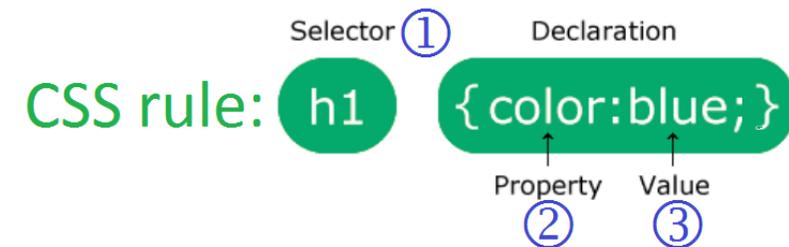
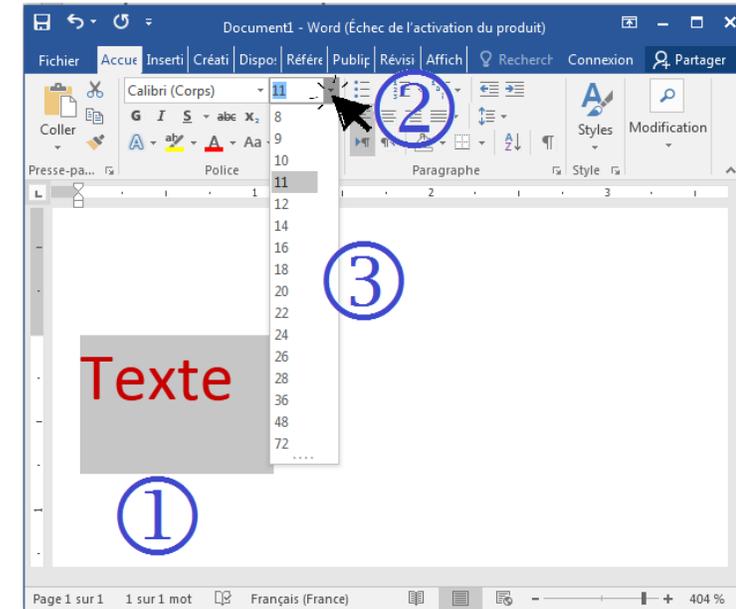
```
<!DOCTYPE html>
<html>
<head>
<style>
  body { background-color: lightblue; }
  h1 { color: white; text-align: center; }
  p { font-family: verdana; font-size: 20px; }
</style>
</head>
<body>
  <h1>My First CSS Example</h1>
  <p>This is a paragraph.</p>
</body>
</html>
```

My First CSS Example
This is a paragraph.

- **CSS** is the second language required to produce web pages, it describes **how** HTML elements should be **displayed**.
- As a **styling language**, CSS is used for decoration, formatting, and layout of web pages.
- With CSS, we can: color text, choose a font, add a background image, draw borders and even round them, make alignments, shifts, adjustments, ... and many other effects and functions.

CSS - Principle

- To format text in a graphic software such as Word, the principle is simple:
 1. **Select** (using mouse) the target part.
 2. Choose the tool (**property**) to apply from the toolbox.
 3. Optionally choose a **value** for the selected property.
- CSS adopts the same principle to format elements (**tags**) in HTML documents, but based on text commands (**rules**):
 1. **Select** the target tag(s) (name, class, ...).
 2. Choose the **property** to apply (name).
 3. Choose the **value** for that property.



CSS – Where to insert?

When a browser reads a style sheet (CSS code), it formats the HTML document according to the content of the style sheet. Now, where do we put the CSS code?

- **External:** CSS code in a separate ".css" file from the HTML document, file linking is ensured by the **<link>** tag (style shared by multiple pages).
- **Internal:** CSS code within the HTML document inside the **<style>** tag (unique style for a page).
- **Inline:** CSS declarations directly within the tag using the common **"style"** attribute (unique style for a tag).

```
<!DOCTYPE html>
<html>
<body>
  <h1 style="color:blue;text-align:center;">
  This is a heading</h1>
  <p style="color:red;">
  |This is a paragraph.</p>
</body>
</html>
```

Page.html

```
<!DOCTYPE html>
<html>
<head>
  <style>
    body {background-color: linen;}
    h1 {color: maroon; margin-left:40px;}
  </style>
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

Page.html

```
<!DOCTYPE html>
<html>
<head>
<link rel="stylesheet" href="style.css">
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

Page.html

```
body {
  background-color: lightblue;
}

h1 {
  color: navy;
  margin-left: 20px;
}
```

Style.css

CSS – Priority rules

- If a property of a tag is defined with multiple selectors in several places, the value of the last one read is used.
- Which style to use when multiple styles are specified for a tag? They will "cascade" in the following order (taking into account the **specificity**):
 1. Inline style
 2. Internal and external style
 3. Default style assigned by the browser
- Tags nested within other tags implicitly **inherit** their style if it has not been explicitly assigned.

```
<head>
<link rel="stylesheet" type="text/css" href="mystyle.css">
<style>
h1 {
  color: orange;
}
</style>
</head>
```

```
<!DOCTYPE html>
<html>
<head>
<style>
  body { background-color: linen; }
  h1 { color: maroon;
        margin-left: 40px; }
  p { background-color: lightgrey; }
</style>
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

This is a heading

This is a paragraph.

CSS – Selectors

- **Selectors?** An expression used to find or select the tag(s) to be styled.
- CSS selectors take the form of the following five categories:
- **Simple:** Use the tag name (p, a, h1, ...), the value of its **class** attribute (.title, .footer, ...), or the value of its **id** attribute (#inp1, #li5, ...) and the universal selector *

```
<style>
  h3{font-size: 12;}
  li{color: blue}
  .contact{font-style: italic;}
  #qu5{font-weight: bold;}
</style>
</head>
<body>
  <div>
    <h3>Useful infos</h3>
    <ul>
      <li class="contact">Email</li>
      <li class="contact">Phone</li>
      <li id="qu5">FAQ</li>
    </ul>
  </div>
```

Useful infos

- *Email*
- *Phone*
- **FAQ**

CSS – Selectors

- **Combined:** Use a combination of selectors with multiple operators:
 - (a, b): Select a or b
 - (a b): Select all descendants b of a
 - (a > b): Select all children b of a
 - (a + b): Select the adjacent b following a
 - (a ~ b): Select all adjacent b following a

Some comments here

Useful infos

- FAQ
- **Email**
- **Phone**

Product infos

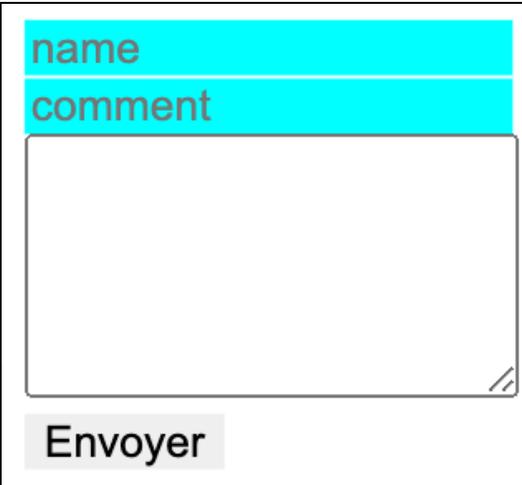
Product infos here .

```
<style>
  h3,h4{text-decoration:underline;}
  body p{font-family:Arial}
  body > p{color: maroon;}
  #qu5 + .contact{font-weight: bold;}
  #qu5 ~ li{color: red;}
</style>
</head>
<body>
  <p>Some comments here</p>
  <div>
    <h3>Useful infos</h3>
    <ul>
      <li id="qu5">FAQ</li>
      <li class="contact">Email</li>
      <li class="contact">Phone</li>
    </ul>
    <h4>Product infos</h4>
    <p>Product infos here ...</p>
  </div>
</body>
```

CSS – Selectors

- **Attribute selectors:** Use the syntax "**selector[attr]** or **selector[attr=val]**" of an attribute as a selection condition.
- You also can use: **[attr*=val]**, **[attr^=val]**, **[attr\$=val]**, to select elts whose attr value: contains/starts with/ends with **val** (respectively)

```
<style>
  *[type]{border: none;}
  input[type="text"]{background: aqua;}
</style>
</head>
<body>
  <form action="">
    <input type="text" placeholder="name"><br>
    <input type="text" placeholder="comment">
    <textarea cols="16" rows="5"></textarea>
    <input type="submit">
  </form>
</div>
</body>
```



CSS – Selectors

- **Pseudo-classes**: Consider certain states and events that occur to tags to make the selection "**selector:pseudo-class**", such as mouse hover (:hover), link has been visited (:visited), get focus (:focus), elt is clicked (:active), first child of a list (:first-child), nth child of a list (:nth-child(odd), :nth-child(even) ...

```
<style>
  input:focus{border:solid red;}
  tr:nth-child(odd){background: aqua;}
</style>
</head>
<body>
  <input type="text" placeh
  <input type="text" placeh
  <input type="submit">
  <table>
  <tr><th>Product</th><th>C
  <tr><td>t-shirt</td><td>red
  <tr><td>coat</td><td>black</td><td>90</td></tr>
  </table>
</body>
```

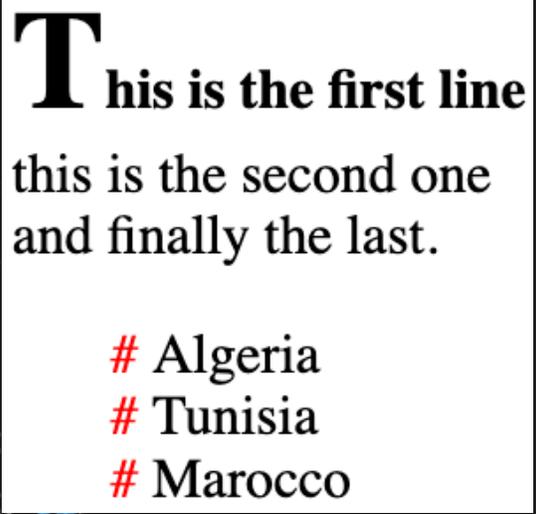


Product	Color	Price
t-shirt	red	45
coat	black	90

CSS – Selectors

- **Pseudo-elements:** Used to style specific parts of a tag "**selector::pseudo-element**" such as the first letter (`::first-letter`), first line (`::first-line`), user selection (`::selection`), insert content before/after (`::before/after`), input placeholder (`::placeholder`), list marker (`::marker`), ...

```
<style>
  p::first-letter{font-size:40px}
  p::first-line{font-weight: bold;}
  li::marker{content: "# "; color: red}
</style>
</head>
<body>
  <p>This is the first line
  this is the second one
  and finally the last.
  <ul>
    <li>Algeria</li>
    <li>Tunisia</li>
    <li>Marocco</li>
  </ul>
</body>
```



CSS -Text

Property	Value	Meaning	Examples
vertical-align	baseline/sub/sup/ ...	Vertical alignment	vertical-align: sub;
text-align	left/right/center/justify	Horizontal alignment	text-align: center;
text-decoration	underline/line-through/overline	Underlining	text-decoration: line-through;
text-transform	uppercase/lowercase/capitalize	Uppercase or lowercase	text-transform: capitalize;
text-indent	Value (px/pt/cm/ ...)	Indentation of the 1st line	text-indent: 50px;
text-shadow	<i>h-shad v-shad r-shad color</i>	Shadow effect: hor ver deg colr	text-shadow: 2px 2px; text-shadow: 2px 2px 3px red;
letter-spacing	Value (px/pt/cm/ ...)	Inter-letter spacing	letter-spacing: 5px; letter-spacing: -2px;
word-spacing	Value (px/pt/cm/ ...)	Inter-word spacing	word-spacing: 2cm; word-spacing: -2em;
line-height	Value (px/pt/cm/ ...)	Line spacing	line-height: 0.8; line-height: 1.8px;

CSS – Text

```
<style>
div {
  border: 1px solid gray;
  padding: 8px;}
h1 {
  text-align: center;
  text-transform: uppercase;
  color: #4CAF50;
  text-shadow: 2px 2px 3px;}
p {
  text-indent: 50px;
  text-align: justify;
  letter-spacing: 3px;}
a {
  text-decoration: none;
  color: #008CBA;
  font-size: 150%;
  font-style: italic;}
p span{
  font-weight: bold;
  text-decoration: line-through;
  font-family: Arial;}
</style>
</head>
<body>
<div>
  <h1>text formatting</h1>
  <p>This text <span>text</span> is styled with some of the text
formatting properties. The heading uses the text-align, text-transform,
and color properties.
  The paragraph is indented, aligned, and the space between characters is
specified. The underline is removed from this colored
  <a target="_blank" href="tryit.asp?filename=trycss_text">"Try it
Yourself"</a> link.</p>
</div>
</body>
```

TEXT FORMATTING

This text **text** is styled with some of the text formatting properties. The heading uses the text-align, text-transform, and color properties. The paragraph is indented, aligned, and the space between characters is specified. The underline is removed from this colored *"Try it Yourself"* link.

CSS -Text

Property	Value	Meaning	Examples
color	name/HEXcode/RGBcode, ...	Color	color: lightblue; color: #550047; color: rgb(255,0,0);
font-family	List of font names	Font	font-family: Times; font-family: Tahoma, Times, Arial;
font-size	Value (px/pt/cm/ ...)/small/large/ ...	Size	font-size: large; font-size: 15px; font-size: 120%;
font-style	italic/oblique/normal	Italic or not	font-style: italic;
font-weight	bold/normal/bolder/lighter/ ...	Bold or not	font-weight: bold;
list-style	Type Position Image	Item list style	list-style: square inside url(...); list-style: decimal outside;
direction	rtl/ltr	Direction	direction: ltr;

CSS – Background

Property	Value	Meaning	Examples
background-color	name/HEXcode/RGBcode, ...	Color	...: gray; ...: #550047; ...: rgb(90,0,0);
background-image	url()/linear-gradient()/ ...	Image	...: url("paper.gif"); ...:linear-gradient(to left,red,blue);
background-repeat	repeat/repeat-x/repeat-y/no-repeat	Image repeat	...: repeat-y;
background-attachment	scroll/fixed/ ...	Fixed or scrolled image	...: scroll;
background-position	x y (left,right,center,top,bottom,px,%)	Initial position of the image	...: left top; ...: 90px 20px; ...: 20% 50%;
background	Spaced Property Values	All background properties	...: blue url("tree.gif") no-repeat fixed center;
opacity	Value (between 0 & 1)	Opacity	...: 0.2;

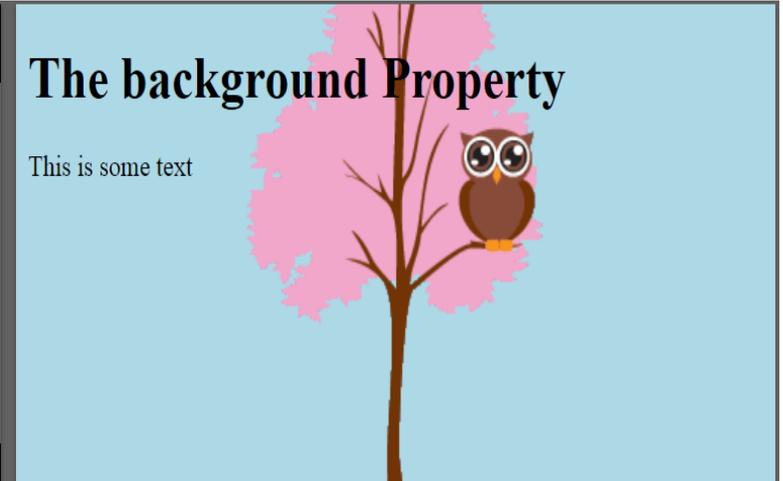
- Use online tools to choose attractive color palettes like: **Colors**, **AdobeColor**, **HueSnap**, **ColorSafe**, etc.

```
<style>
body {
  background: lightblue url("img_tree.gif") no-repeat
  fixed center;
}
</style>
</head>
<body>

<h1>The background Property</h1>

<p>This is some text</p>

</body>
```



CSS – Bordures

Property	Value	Meaning	Examples
border-color	name/HEXcode/RGBcode, ...	Color	...: gray; ...: #550047; ...: rgb(90,0,0);
border-width	Value (px, pt, cm, ...)	Width	...: 3px;
border-style	solid/dotted/double/none/ ...	Style	...: double;
border	Spaced property values	All previous properties	...: 5px solid red;
border-radius	Value (px, pt, cm, ...)	Rounded corner effect	...: 5px; ...: 5%;
border-collapse	collapse/separate	Table Neighboring Borders collapse	...: collapse; ...: separate;
box-shadow	offset-hor offset-ver Degree Colr	Shadow defined by 4 parameters	...: 10px 10px 5px green;

```
<style>
div {padding: 15px;
  background: lightblue;
  box-shadow: 0px 0px 20px;}
</style>
</head>
<body>
<h1>The box-shadow</h1>
<div>Element with a box-shadow</div>
</body>
```

The box-shadow

Element with a box-shadow

```
<style>
p.a {border-style: dotted; border-color: red;}
p.b {border-style: dashed; border-width: 3px;}
p.c {border-style: solid; border-radius: 8px;}
p.d {border-left: 4px solid red;}
p {background: lightgray;}
</style>
</head>
<body>
<h2>CSS borders</h2>
<p class="a">A dotted red border.</p>
<p class="b">A dashed thick border.</p>
<p class="c">A solid rounded border.</p>
<p class="d">A left red border.</p>
</body>
```

CSS borders

A dotted red border.

A dashed thick border.

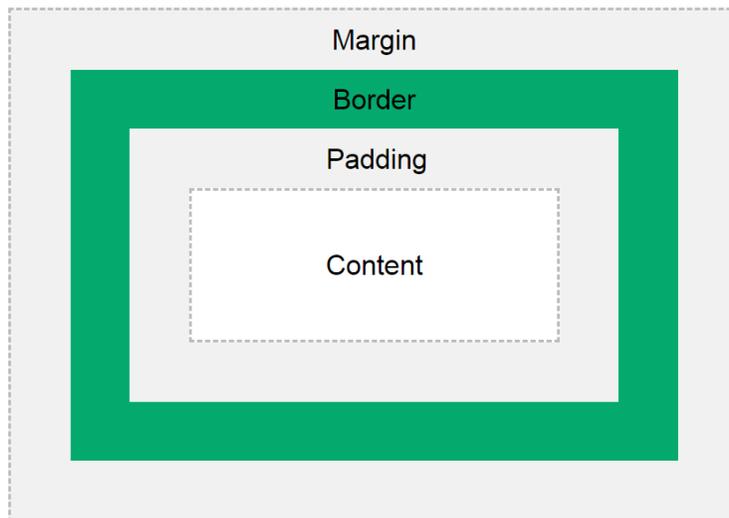
A solid rounded border.

A left red border.

CSS – Box model

Box-model? It's a box wrapping around a tag, consisting of its content size (width, height), its padding, its border (border-width), and its margin.

Propriété	Valeur	Signification	Exemples
margin	Valeur (px, pt, cm, %, auto, ...)	Marge extérieure (bordure)	margin: 5% 5% 5% auto;
padding	Valeur (px, pt, cm, %, auto, ...)	Marge intérieure (bordure)	padding: 20px 10%; padding: 5px;
width	Valeur (px, pt, cm, %, auto, ...)	Largeur (sans marges int/ext et bordure)	width: 12%;
height	Valeur (px, pt, cm, %, auto, ...)	Longueur (sans marges int/ext et bordure)	height: 15px;



```
<style>
div {
  width: 220px;
  padding: 10px;
  border: 5px solid gray;
  margin: 0;}
</style>
</head>
<body>
<h2>Calculate the total width:</h2>

<div>The picture above is 250px
wide. The total width of this
element is also 350px.</div>
</body>
```

Calculate the total width:



The picture above is 250px wide. The total width of this element is also 350px.

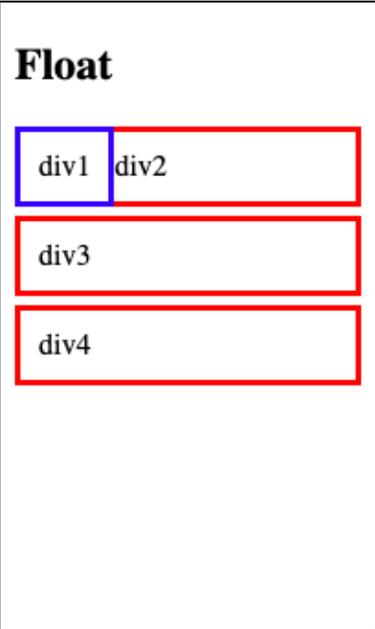
CSS – Positioning(Float)

To control the position, CSS offers several solutions:

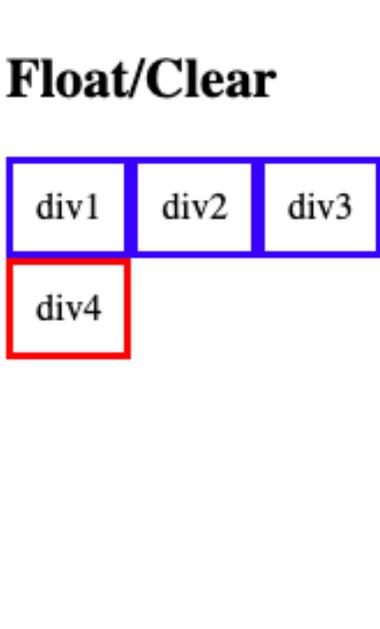
- **float**: defines how an element can float within a container (right, left, none).
 - ↪ By default, the element following the floating element sticks (to the right/left). To avoid this, we use the '**clear**' property with its values: right, left, both.

```
div {
  padding: 10px;
  border: 3px solid red;
  margin-bottom: 5px;
}
.div1 {
  float: left;
  padding: 10px;
  border: 3px solid blue;
}
</style>
</head>
<body>

<h2>Float</h2>
<div class="div1">div1</div>
<div class="div2">div2</div>
<div class="div3">div3</div>
<div class="div4">div4</div>
```



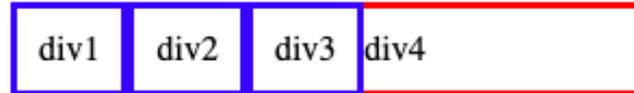
```
div {
  float: left;
  padding: 10px;
  border: 3px solid
blue;
}
#c{clear: left;
border: 3px solid red}
</style>
</head>
<body>
<h2>Float/Clear</h2>
<div>div1</div>
<div>div2</div>
<div>div3</div>
```



Float - Examples

```
div {
  padding: 10px;
  border: 3px solid red;
}
.f {
  float: left;
  border: 3px solid blue;
}
</style>
</head>
<body>
<h2>Float</h2>
<div class="f">div1</div>
<div class="f">div2</div>
<div class="f">div3</div>
<div class="n">div4</div>
```

Float



```
div {
  float: left;
  padding: 10px;
  border: 3px solid blue;
}
</style>
</head>
<body>
<h2>Float</h2>
<div>div1</div>
<div>div2</div>
<div>div3</div>
<div>div4</div>
```

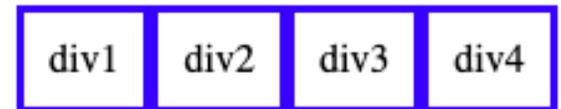
```
<style>
div {float: left;background: CadetBlue;
padding: 10px; color: white;}
div:hover{background: DarkCyan;}
#d3 {text-align: right; float: none;}
a{color: black;
text-decoration: none;}
</style>
</head>
<body>
<h2>Float</h2>
<p>We use float for creating nav bar</p>
<a href=""><div id="d1">Accueil</div></a>
<a href=""><div id="d2">Services</div></a>
<a href=""><div id="d3">Contacts</div></a>
```

Float

We use float for creating nav bar



Float

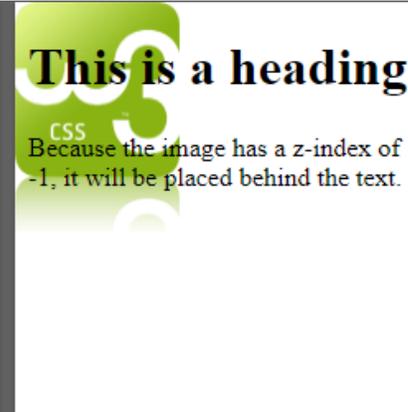


CSS – Positioning(Position)

- **Position:** defines the type of positioning to use. This property requires the position properties: **top**, **bottom**, **right**, **left** (value in px, cm, %, ...) which behave relative to the position value:
 - **static** (default): position according to the normal flow of the page (**top**, **left**, ... have no effect)
 - **relative**: position relative to its normal position
 - **absolute**: position relative to the first positioned parent element (or to the body if none)
 - **fixed**: position relative to the page's window (fixed element)
 - **sticky**: position **relative** until the element scrolls out of view (top = 0, bottom = 0), then becomes **fixed**
- **z-index:** a property defining the stacking order in case of overlapping

```
<style>
img {
  position: absolute;
  left: 0px;
  top: 0px;
  z-index: -1;}
</style>
</head>
<body>
<h1>This is a heading</h1>

<p>Because the image has a z-index of -1,
it will be placed behind the text.</p>
```



CSS – Positioning(display)

- **Display:** defines how an element is displayed (inline, block, none, table, ...)
 - **inline:** no new line break and size to fit content
 - **block:** new line break and takes up full width
 - **inline-block:** inline but resizable
 - **none:** removed
 - **table:** behaves like a `<table>` element (use `display: table-row/table-cell`)

```
<div class="table">
  <div class="row">
    <div class="cell">item 2</div>
    <div class="cell">item 3</div>
    <div class="cell">item 4</div>
  </div>
  <div class="row">
    <div class="cell">item 6</div>
    <div class="cell">item 7</div>
    <div class="cell">item 8</div>
  </div>
```

```
.table{
  display: table;
  border-collapse: collapse;}
.row{display: table-row;}
.cell{
  display: table-cell;
  border: solid red;
  padding: 0.5em 2em;}
```

item 2	item 3	item 4
item 6	item 7	item 8

CSS – Positioning(display)

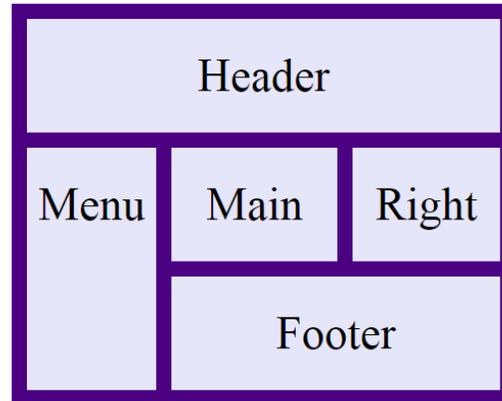
- **Display:** defines how an element is displayed (inline, block, none, table, ...)
 - **flex:** behaves as a linear flexible container (**uni-directional**)
 - **Container:** in addition to **display: flex**, other properties can be used: **flex-direction** (row/col), **justify-content** (align main axis), **align-items** (align cross axis), **align-content** (align lines), ...
 - **Items:** several properties can be used: **flex** (grow, shrink, basis), **order**, **align-self** (one item)...
 - **grid:** behaves as a grid flexible container (**bi-directional**)
 - **Container:** in addition to **display: grid**, other properties can be used: **grid-template**, **justify-content** (align along the main axis), **align-content** (align along the cross axis), **gap** (row/col)...
 - **Items:** several properties can be used: **grid-area** (name or rowS/colS/rowE/colE), ...

```
.container{  
  display: grid;  
  grid-template: 80% auto / auto auto 10% ;  
}
```

CSS – Positioning(display)

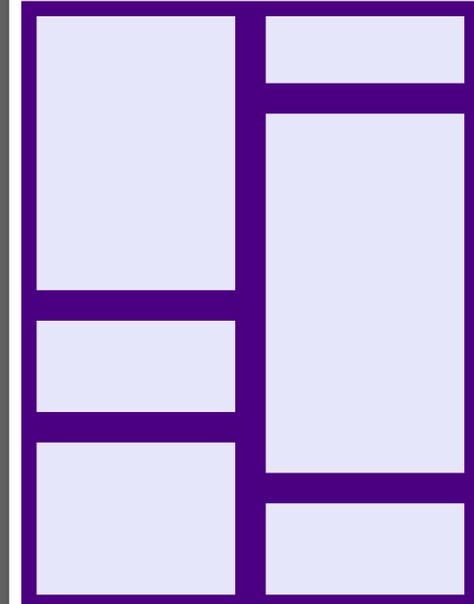
```
<style>
.cont {
  display: grid;
  grid-template-areas:
    'header header header header header'
    'menu main main main right right'
    'menu footer footer footer footer footer';
  grid-gap: 10px;
  background: Indigo;
  padding: 10px;}
.cont > div {
  background: Lavender; text-align: center;
  padding: 20px 0; font-size: 30px;}
</style>
</head>
<body>
<h1>Grid</h1>
<div class="cont">
  <div style="grid-area: header">Header</div>
  <div style="grid-area: menu">Menu</div>
  <div style="grid-area: main">Main</div>
  <div style="grid-area: right">Right</div>
  <div style="grid-area: footer">Footer</div>
</div>
</body>
```

Grid



```
<!DOCTYPE html>
<html>
<head>
<style>
.cont {display: flex; flex-flow: column wrap;
  height: 400px; width: 300px; background: Indigo;}
.item {background: Lavender;margin: 10px;
  padding: 20px;font-size: 30px;}
</style>
</head>
<body>
<h1 style="margin: 0">Flex</h1>
<div class="cont">
  <div class="item" style="flex: 1 0 30%;"></div>
  <div class="item" style="flex: 0 0 5%;"></div>
  <div class="item" style="flex: 0 0 15%;"></div>
  <div class="item" style="flex: 0 0 1%;"></div>
  <div class="item" style="flex: 1 0 35%;"></div>
  <div class="item" style="flex: 0 0 5%;"></div>
</div>
</body>
</html>
```

Flex



CSS – Media queries

- @media rules are making possible to define a tailored styles for different media types (laptops, tablets, phones, ...)
- Syntax (adapted):
`@media [not|only mediatype and] (mediafeature:value)+{
 CSS-Code;
}`
 - **Mediatypes**: all, print, screen
 - **Mediafeature**: orientation, width, height, min/max-width, min/max-height

```
.menu {  
    overflow: hidden;  
    background-color: #4108097;  
}  
.menu a {  
    float: left;  
    padding: 14px 16px;  
    color: white;  
    text-align: center;  
    text-decoration: none;  
}  
@media (max-width: 600px) {  
    .menu a {  
        width: 100%;  
        background: #410808;  
    }  
}
```

```
<h2>Responsive navigation menu</h2>  
<p>Resize the browser window to see t  
<div class="menu">  
    <a href="#"><div>Element1</div></a>  
    <a href="#"><div>Element2</div></a>  
    <a href="#"><div>Element3</div></a>  
</div>
```

CSS – Media queries

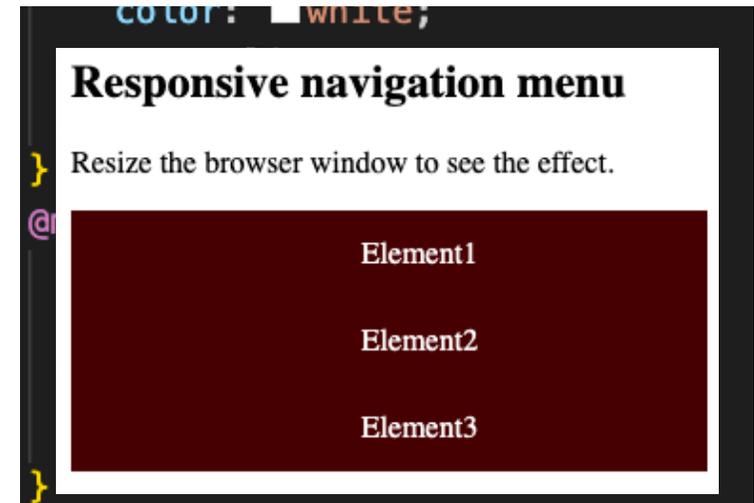
- @media rules are making possible to define a tailored styles for different media types (laptops, tablets, phones, ...)
- **Examples:**
 - @media only screen and (max-width:600px){body{display:flex;}}
 - @media screen and (max-width:900px and min-width){h3{font-size:20px}}
 - @media screen and (orientation:portrait){div{float:none;}}

```
.menu {  
  overflow: hidden;  
  background-color: #4400007;  
}
```

Responsive navigation menu

Resize the browser window to see the effect.

Element1 Element2 Element3



```
<h2>Responsive navigation menu</h2>  
<p>Resize the browser window to see t</p>  
<div class="menu">  
  <a href="#"><div>Element1</div></a>  
  <a href="#"><div>Element2</div></a>  
  <a href="#"><div>Element3</div></a>  
</div>
```

CSS – Clamp() function

- **clamp()** function is used within CSS rules to define a flexible range for a particular property, ensuring that it adapts smoothly within the specified limits
- Syntax:
cssProperty: **clamp**(minVal, preferredVal, maxVal);
 - width: clamp(100px, 50%, 200px);
 - font-size: clamp(16px, 2vw, 24px);
 - margin-left: clamp(200px, 20vw, 300px);

```
.menu {
  display: flex;
  flex-wrap: wrap;
}
.menu div {
  width: clamp(400px, 50%, 700px);
  height: 50px;
  margin: 10px;
  background-color: #cee164;
}
```

```
<h2>Responsive list using clamp() f
<p>Resize the browser window to see
<div class="menu">
  <div></div>
  <div></div>
  <div></div>
```

Responsive list using clamp() function

Resize the browser window to see the effect.



CSS – Examples

Table vivante

Tag name	Possible attributes	Inline/Block
p (Paragraph)	id, class, style, ...	Block
a (Address)	id, class, href, ...	Inline
img (Image)	id, class, src, ...	Inline
ol (Ordred list)	id, name, class, ...	Block

```
table {border-collapse: collapse;}
td, th {font-family: Arial;
border: 1px solid #ddd;
padding: 8px;}
th {padding: 12px;
background: #04AA6D;
color: white;}
tr:nth-child(even){background: #f2f2f2;}
tr:hover {background: #ddd;}
```

```
ul {list-style: none;
padding: 0;
height: 120px;
width: 150px;}
li {padding: 6px;
color: black;
background: lightgray;}
a{text-decoration: none;}
a:hover li {background: gray;}

<ul>
<a href=""><li>Home</li></a>
<a href=""><li>News</li></a>
<a href=""><li>Contact</li></a>
<a href=""><li>About</li></a>
</ul>
```

Barre de menu verticale

```
<div class="news">
<style>
.cont{display: grid;
grid-template:
'11 i1 i1'
'12 i2 i2'
'13 i3 i3'
'14 i4 i4'
'. . b';
grid-gap: 10px;
background: #f2f2f2;
padding: 10px;
font-family: Arial;
}
input, select, textarea{
border-radius: 4px;
border: 1px solid #ccc;}
input[type="submit"] {
background: lightgreen;}
</style>
</div>
```

First Name

Last Name

Country

Subject

Formulair aligné

CSS – Responsive web design

- Web pages can be accessed using computers, tablets, and phones. They should be enjoyable and easy to use, regardless of the used device!
- Responsive web design (RWD)? set of techniques for adapting web pages to different devices
 - Assign relative dimensions (%) that adapt to the device window size
 - Instruct the browser to control the page dimensions and scaling via the viewport meta tag

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```
 - Use Media Queries (rule: conditionally applied properties) to assign different styles to different devices and dimensions

```
@media only screen and (max-width: 600px) {  
  body {background-color: lightblue;}}
```
 - Utilize flexible layouts (Flex, Grid, ...)
 - Utilize responsive frameworks (W3.CSS, Bootstrap, ...)