

# CSS

# Cascading Style Sheets

# Achieving separation between content and presentation

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0//EN">
<HTML>
  <HEAD>
    <TITLE>Hello World</TITLE>
  </HEAD>
  <BODY>
    <H1>Hello World!</H1>
    <p>Usiamo i CSS</p>
  </BODY>
</HTML>
```

hello.html

**Hello World!**

Usiamo i CSS

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0//EN">
<HTML>
  <HEAD>
    <TITLE>Hello World con CSS</TITLE>
    <LINK rel="stylesheet" href="hello.css" type="text/css">
  </HEAD>
  <BODY>
    <H1>Hello World!</H1>
    <p>Usiamo i CSS</p>
  </BODY>
</HTML>
```

hello.html

```
BODY { color: red }
H1 { color: blue }
```

hello.css

**Hello World!**

Usiamo i CSS

Da <http://www-db.deis.unibo.it>



# The goal

## CSS Zen Garden

The Beauty of CSS Design



A demonstration of what can be accomplished through CSS-based design. Select any style sheet from the list to load it into this page. Download the example HTML file and CSS file.

### The Road to Enlightenment

Littering a dark and dreary road lay the past relics of browser-specific tags, incompatible DOMs, broken CSS support, and abandoned browsers.

We must clear the mind of the past. Web enlightenment has been achieved thanks to the tireless efforts of folk like the W3C, W3P, and the major browser creators.

The CSS Zen Garden invites you to relax and meditate on the important lessons of the masters. Begin to see with clarity. Learn to use the time-honored techniques in new and invigorating fashion. Become one with the web.

### So What is This About

There is a continuing need to show the power of CSS. The Garden aims to excite, inspire, and encourage participation. To begin, view some of the existing designs in the list. Click any one will load the style sheet into this very page. The remains the same, the only thing that has changed is the external CSS file. Yes, really.

CSS allows complete and total control over the style of a hypertext document. The only way this can be illustrated is by demonstrating what it truly be, once the reins are placed in the hands of those create beauty from structure. Designers and coders alike contributed to the beauty of the web; we can always push further.

### Participation

Strong visual design has always been our focus. You are modifying this page, so strong CSS skills are necessary too, but the example files are commented well enough that even CSS novices can use them as starting points. Please see the CSS Resource Guide for advanced tutorials and tips on working with CSS.



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## THE ROAD TO ENLIGHTENMENT

Download the example HTML file and CSS file.

### BENEFITS

Why participate? For recognition, inspiration, and a resource we can all refer to showing people how amazing CSS really can be. This site serves as equal parts inspiration for those working on the web today, learning tool for those who will be tomorrow, and gallery of future techniques we can all look forward to.

### REQUIREMENTS

Where possible, we would like to see mostly CSS 1 & 2 usage. CSS 3 & 4 should be limited to widely-supported elements only, or strong fallbacks should be provided. The CSS Zen Garden is about functional, practical CSS and not the latest bleeding-edge tricks viewable by 2% of the browsing public. The only real requirement we have is that your CSS validates.

Luckily, designing this way shows how well various browsers have implemented CSS by now. When sticking to the guidelines you should see fairly consistent results across most modern browsers. Due to the sheer number of user agents on the web these days — especially when you factor in mobile — pixel-perfect layouts may not be possible across every platform. That's okay, but do test in as many as you can. Your design should work in at least IE9+ and the latest Chrome, Firefox, iOS and Android browsers (run by over 90% of the population).

We ask that you submit original artwork. Please respect copyright laws. Please keep objectionable material to a minimum, and try to incorporate unique and interesting visual themes to your work. We're well past the point of needing another garden-related design.

This is a learning exercise as well as a demonstration. You retain full copyright on your graphics (with limited exceptions, see [submission guidelines](#)), but we ask you release your CSS under a Creative Commons license identical to the one on this site so that others may learn from your work.

## CSS ZEN GARDEN

The Beauty of CSS Design

A DEMONSTRATION OF WHAT CAN BE ACCOMPLISHED VISUALLY THROUGH CSS-BASED DESIGN. SELECT ANY STYLE SHEET FROM THE LIST TO LOAD IT INTO THIS PAGE.

SELECT A DESIGN

Fountain Kiss by Jeremy Carlson  
A Robot Named Jimmy by meltmedia  
Verde Moderna by Dave Shea  
Under the Seal by Eric Stoltz  
Make 'em Proud by Michael McAdams and Scotty Reiffnyder  
Orchid Beauty by Kevin Adkins

View This Design's CSS  
CSS Resources  
FAQ  
Submit a Design  
Translations

## SO WHAT IS THIS ABOUT?

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## PARTICIPATION

Strong visual design has always been our focus. You are modifying this page, so strong CSS skills are necessary too, but the example files are commented well enough that even CSS novices can use them as starting points. Please see the CSS Resource Guide for advanced tutorials and tips on working with CSS.

You may modify the style sheet in any way you wish, but not the HTML. This may seem daunting at first if you've never worked this way before, but follow the listed links to learn more, and use the sample files as a guide.

Download the sample HTML and CSS to work on a copy locally. Once you have completed your masterpiece (and please, don't submit half-finished work) upload your CSS file to a web server under your control. Send us a link to an archive of that file and all associated assets, and if we choose to use it we will download it and place it on our server.

Next Designs >  
View All Designs

ARCHIVES

RESOURCES



SEE <http://www.csszengarden.com>

# The goal: a simpler demo example

See [https://www.w3schools.com/css/css\\_intro.asp](https://www.w3schools.com/css/css_intro.asp)



# The main idea:

We can customize the behaviour of the HTML Tags (e.g. adding properties – a “style”)

`<h1>`

`<h1 style="color:blue;text-align:center;">`

***Inline CSS***

# We can also generalize:

We can customize the behaviour of all instances of a type of HTML Tag

```
<head>
```

```
<style>
```

```
h1 {
```

```
  color:blue;
```

```
  text-align:center;
```

```
}
```

```
</style>
```

```
</head>
```

***Internal CSS***

# We can factor them out:

We can customize the behaviour of all instances of a type of HTML Tag for many files.

```
<head>
```

```
<head>
```

```
<style type="text/css">
```

```
  @import url("myStyle.css");
```

```
</style>
```

```
</head>
```

```
</head>
```

## *External CSS*

myStyle.css

```
h1 {  
  color:blue;  
  text-align:center;  
}
```



# Another syntax:

```
<head>
```

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

```
</head>
```

## *External CSS*

myStyle.css

```
h1 {  
  color:blue;  
  text-align:center;  
}
```

# Style: local definition (inline)

```
<html><head>  
</head><body>
```

```
<h1 style="color:blue;">primo capitolo</h1>
```

nel mezzo del cammin di nostra vita

```
<h1 style="color:blue;">secondo capitolo</h1>
```

mi ritrovai per una selva oscura

```
<h1 style="color:blue;">terzo capitolo</h1>
```

che la diritta via m'era smarrita

```
</body></html>
```

# Style: definition of a page style (internal CSS)

```
<html><head>
<style>
h1 {color:blue;}
</style>
</head><body>
<h1>primo capitolo</h1>
nel mezzo del cammin di nostra vita
<h1>secondo capitolo</h1>
mi ritrovai per una selva oscura
<h1>terzo capitolo</h1>
che la diritta via m'era smarrita
</body></html>
```

# Style: definition of a shared style (external CSS)

```
<html>
<head>
<link rel="StyleSheet" type="text/CSS" href="../common/loadStyles.css" >
</head>
<body>
<h1>primo capitolo</h1>
nel mezzo del cammin di nostra vita
<h1>secondo capitolo</h1>
mi ritrovai per una selva oscura
<h1>terzo capitolo</h1>
che la diritta via m'era smarrita
</body></html>
```



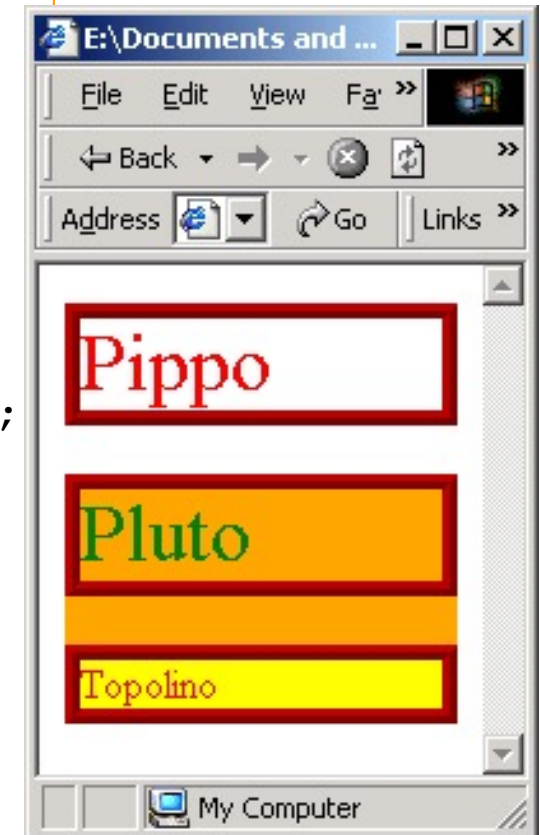
# CSS

# Cascading Style Sheets

Cascading

# Styles cascade

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>CSS-P demo</title>
    <style>
      a {color:red;}
      p {font-size:24pt;color:green;border-width:thick;
        border-style:ridge;border-color:red;}
      p.red {color:red}
    </style>
  </head>
  <body>
    <p class="red">Pippo</p>
    <div style="background:orange;
      <p> Pluto</p>
      <p class="red" style="font-size:12pt;
        background-color:yellow; ">Topolino</p>
    </div>
  </body>
</html>
```



# The !important clause

!important

- Wins over the other clauses



# CSS

# Cascading Style Sheets

Some Formatting Elements

# Length units

## *ABSOLUTE LENGTH*

International System

**cm** *centimetrs*

**mm** *millimetrs*

*anglosaxon units*

**in** *inch*

**pt** *point: 1/72 inch*

**pc** *pica: 12 point = 1/6 inch*

*System dependent:*

**px** *pixel*

## *RELATIVE LENGTH:*

**em** *height of element font*

**ex** *extended height of element font*

**Quick  
reminder**



# Formatting elements

**color:***color*

**background-color:***color*

**background-image:***uri*

**font-family:**name

**font-size:**xx-small|x-small|small|medium|large|x-large|xx-large|  
larger|smaller|*absoluteSize*|*relativeSize*|*percentage*|*length*

**font-style:**normal|italic

**font-weight:**bold|bolder|lighter|normal|100|200|...|800|900

**Quick  
reminder**



# Colors






- Absolute colors

Also using hex  
#RRGGBB

Or

rgb(rosso,verde,blu)

	black - nero		green - verde
	silver - argento		lime - verde chiaro
	gray - grigio		olive - oliva
	white - bianco		yellow - giallo
	maroon - marrone		navy - blu scuro
	red - rosso		blue - blu
	purple - viola		teal - verde acqua scuro
	fuchsia - fucsia		aqua - verde acqua

	background - il colore di sfondo del desktop
	buttonFace - il colore di sfondo dei pulsanti
	buttonText - testo dei pulsanti
	captionText - testo delle etichette
	grayText - testo disabilitato

System properties colors

**Quick  
reminder**





# RGBA AND OPACITY

```
rgba: (200, 30 30, 0.2);  
opacity: 0.5;
```

**Quick  
reminder**

Taken from: [DavideDiCillo.com](http://DavideDiCillo.com)



# GRADIENTS

```
linear-gradient(direction, color-stop1, color-stop2, ...);
```

**Quick  
reminder**

Modified from: [DavideDiCillo.com](http://DavideDiCillo.com)



# Formatting elements

**line-height:**normal|*length*|*percentage*

**text-align:**left|center|right|justify

**text-decoration:**blink|line=through|overline|underline

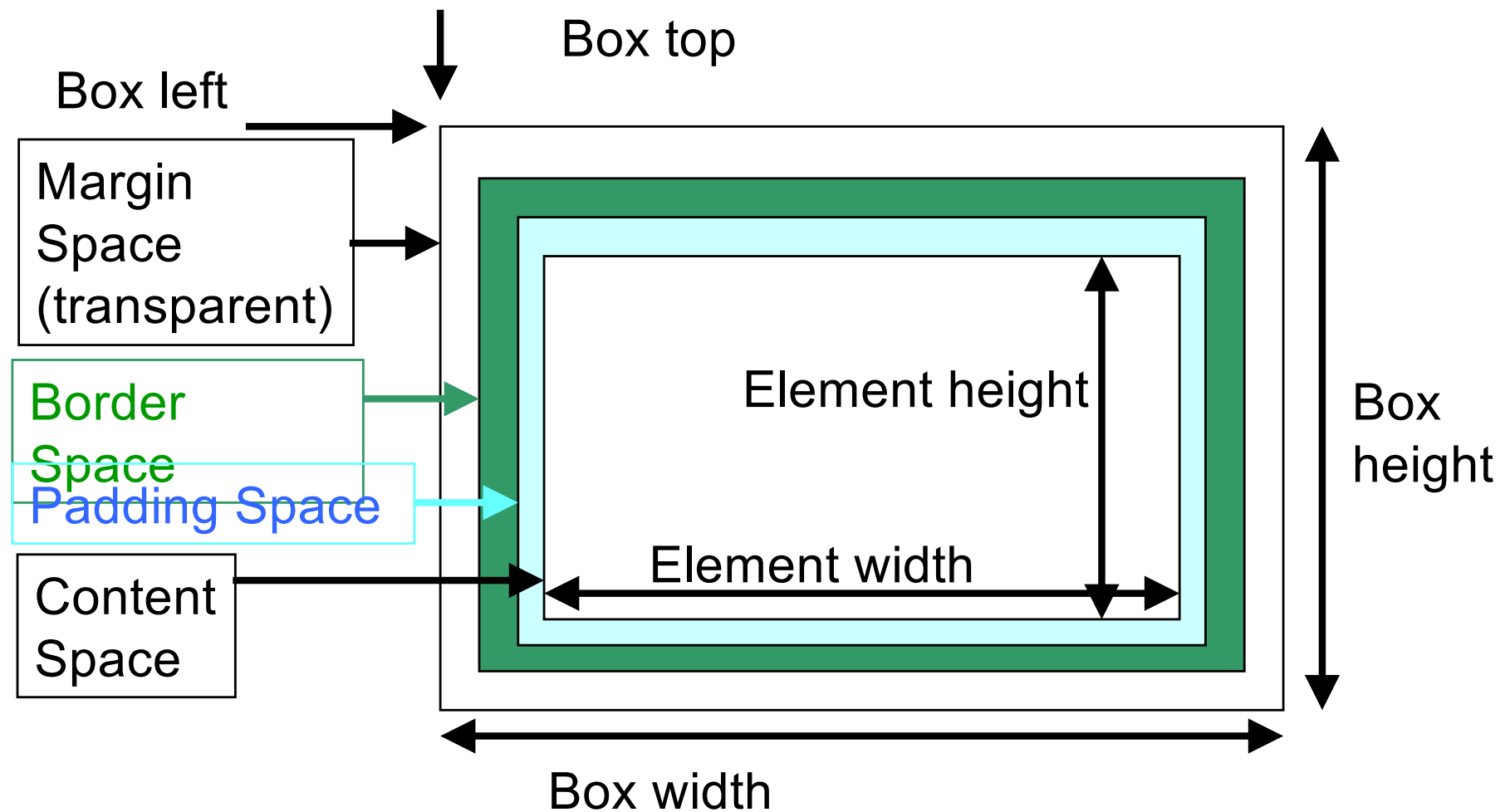
**text-indent:***length*|*percentage*

**text-transform:**none|capitalize|uppercase|lowercase

**Quick  
reminder**



# Formatting elements: the Box Model



# Formatting elements

border-bottom-width, border-top-width,  
border-right-width, border-left-width: thin|medium|thick|n

border-color: *color*

border-style: double|groove|none|inset|outset|ridge|solid

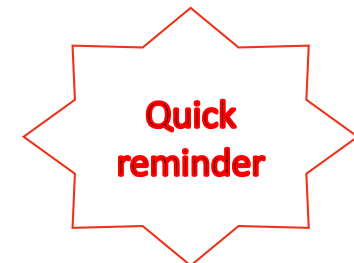
border-width: thin|medium|thick|*length*

margin: *thickness*

margin-bottom, margin-left, margin-right, margin-top : *thickness*

padding : *thickness*

padding-bottom, padding-left, padding-right, padding-top : *thickness*

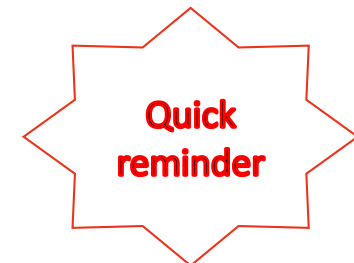


## Formatting elements – lists (<li>)

```
ol {  
  line-style:decimal|lower-alpha|lower-roman|  
              upper-alpha|upper-roman  
}
```

```
ul {  
  line-style:circle|disc|square  
}
```

```
ul {  
  list-style-image: url('triangle.gif');  
}
```



# Formatting elements lists (<li>)

- Coffee
- Tea
- Coca Cola

```
ol {  
  background: #ff9999;  
  padding: 20px;  
}  
li {  
  background: #ffe5e5;  
  padding: 5px;  
  margin-left: 35px;  
}
```

```
ul {  
  background: #3399ff;  
  padding: 20px;  
}  
li {  
  background: #cce5ff;  
  margin: 5px;  
}
```

1. Coffee
2. Tea
3. Coca Cola

**Quick  
reminder**



# CSS

# Cascading Style Sheets

## Selectors

# Basic selectors

- Simple:

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

Usage: `<p>`

- Class:

```
.red {color: red; }
```

Usage: `<p class="red">` `<h1 class="red">`

- Universal:

```
*{color: red; }
```

Usage: `<p>` `<h1>`

"

- #id:

```
#red {color: red; }
```

Usage: `<p id="red">` `<h1 id="red">`



# Combinator selectors

- Simple + class:

```
p.red { text-align: center; color: red; }
```

Usage: `<p class="red">` NOT: `<p>`, `<h1.red>`

- Grouping:

```
div, p {color: orange; }
```

- Descendant:

```
div p {color: red; }
```

- Child:

```
div > p {color: red; }
```

Try it! : [https://www.w3schools.com/css/tryit.asp?filename=trycss\\_sel\\_element\\_element](https://www.w3schools.com/css/tryit.asp?filename=trycss_sel_element_element)

See also: [https://www.w3schools.com/css/css\\_combinators.asp](https://www.w3schools.com/css/css_combinators.asp)



# Combinator selectors

- **Adjacent sibling:**

`div + p { text-align: center; color: green; }`  
*the p sibling of div immediately following it*

Sibling elements must have the same parent element, and "adjacent" means "Immediately following"

- **General sibling:**

`div ~ p { color: green; }`  
*All p sibling of div following it*

all elements that are siblings following the specified element

View also [https://www.w3schools.com/css/css\\_combinators.asp](https://www.w3schools.com/css/css_combinators.asp)



# Advanced selectors

- Pseudo-class:

A pseudo-class is used to define **a special state of an element**: mouse over, get focus, link is visited or not, is n-th child, current language is...

see: [https://www.w3schools.com/css/css\\_pseudo\\_classes.asp](https://www.w3schools.com/css/css_pseudo_classes.asp)

- Pseudo-element:

A CSS pseudo-element is used to style **specified parts of an element**: the first letter, the first line, before/after the content, selection...

see: [https://www.w3schools.com/css/css\\_pseudo\\_elements.asp](https://www.w3schools.com/css/css_pseudo_elements.asp)



# Attribute selectors

```
input[type="button"] {  
  width: 120px; margin-left: 35px; display: block;  
}
```

Selector	Example	Example description
<a href="#">[attribute]</a>	[target]	Selects all elements with a target attribute
<a href="#">[attribute=value]</a>	[target=_blank]	Selects all elements with target="_blank"
<a href="#">[attribute~=value]</a>	[title~=flower]	Selects all elements with a title attribute containing the word "flower"
<a href="#">[attribute =value]</a>	[lang =en]	Selects all elements with a lang attribute value starting with "en"
<a href="#">[attribute^=value]</a>	a[href^="https"]	Selects every <a> element whose href attribute value begins with "https"
<a href="#">[attribute\$=value]</a>	a[href\$=".pdf"]	Selects every <a> element whose href attribute value ends with ".pdf"
<a href="#">[attribute*=value]</a>	a[href*="w3schools"]	Selects every <a> element whose href attribute value contains the substring "w3schools"

The value has to be a whole word, either alone, like class="top", or followed by a hyphen( - ), like class="top-text"!

View [https://www.w3schools.com/css/css\\_attribute\\_selectors.asp](https://www.w3schools.com/css/css_attribute_selectors.asp)



# CSS-P

# Cascading Style Sheets

## Positioning

# Positionable Elements – CSS/P

Type of position specification:

**position:**absolute|relative

Position specification:

**top:***size*

**left:***size*

dimension specification:

**width:***size*

**height:***size*

Visibility specification:

**visibility:**hidden|inherit|show



# Positionable Elements – CSS/P

**Clip:**rect(*top right bottom left*)

Clip an element (leaving it in place)

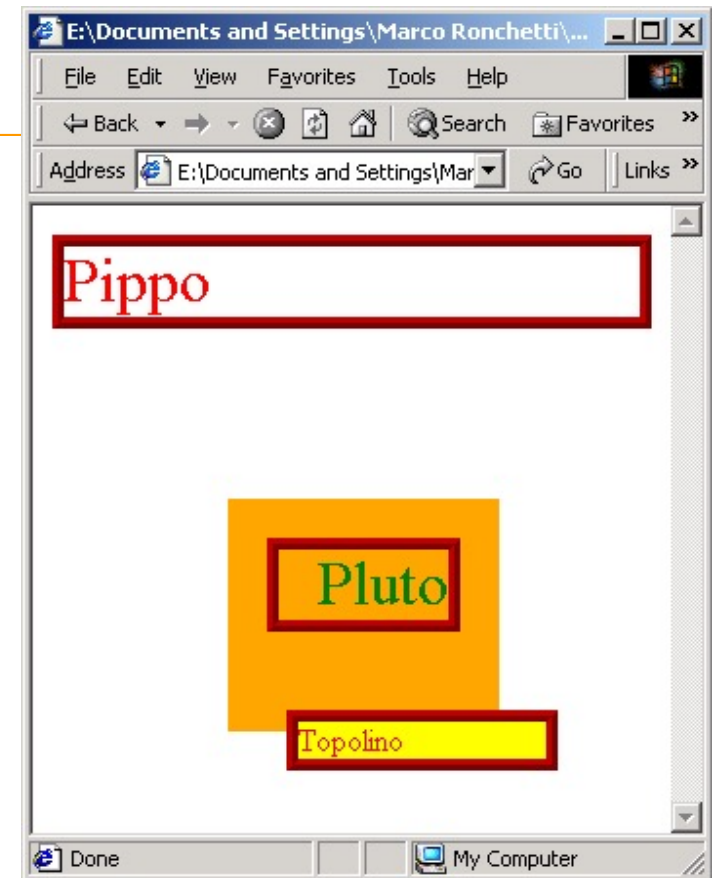
**z-index:***n*

Decides the superposition ranking



# Positioning examples: CSS-P

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>CSS-P demo</title>
    <style>
      #aposition{position:relative;left:30px;top:20px}
      a {color:red;}
      p {font-size:24pt;color:green;border-width:thick;
        border-style:ridge;border-color:red;}
      p.red {color:red}
    </style>
  </head>
  <body>
    <p class="red">Pippo</p>
    <div style="background:orange;
      position:absolute;left:100px;top:150px;">
      <p style="padding-left:20px;margin:20px;">Pluto</p>
      <span id="aposition">
        <p class="red" style="font-size:12pt;
          background-color:yellow;">Topolino</p>
      </span>
    </div>
  </body>
</html>
```



# CSS

# Cascading Style Sheets

Some more stuff

# Much more!

- Font
- Box & Text shadows
- Rounded borders
- Image borders

# Much more!

- Pagination
- Multiple column
- Tooltips
- (Graphic) Transformations (e.g. rotations, 2D – 3D)
- Animation

See section “CSS Advanced” in <https://www.w3schools.com/css/>



# CSS

# Cascading Style Sheets

Tutorial and gym

# CSS Tutorial

## CSS Tutorial

CSS HOME

CSS Introduction

CSS Syntax

CSS Selectors

CSS How To

CSS Comments

CSS Colors

CSS Backgrounds

CSS Borders

CSS Margins

CSS Padding

CSS Height/Width

CSS Box Model

CSS Outline

CSS Text

CSS Fonts

CSS Icons

CSS Links

CSS Lists

CSS Tables

CSS Display

CSS Max-width

CSS Position

CSS Overflow

CSS Float

CSS Inline-block

CSS Align

CSS Combinators

CSS Pseudo-class

CSS Pseudo-element

CSS Opacity

CSS Navigation Bar

CSS Dropdowns

CSS Image Gallery

CSS Image Sprites

CSS Attr Selectors

CSS Forms

CSS Counters

CSS Website Layout

CSS Units

CSS Specificity

<https://www.w3schools.com/css/>

# **Making life easier with CSS libraries**

# Popper

**Places your tooltip or popover relative to the reference** taking into account their sizes, and positions its arrow centered to the reference.

**Takes into account the many different contexts it can live in** relative to the reference (different offsetParents, different or nested scrolling containers).

**Keeps your tooltip or popover in view as best as possible.** It prevents it from being clipped or cut off (overflow prevention) and changes the placement if the original does not fit (flipping).

# Short demo

See

<https://popper.js.org/>

CDN:

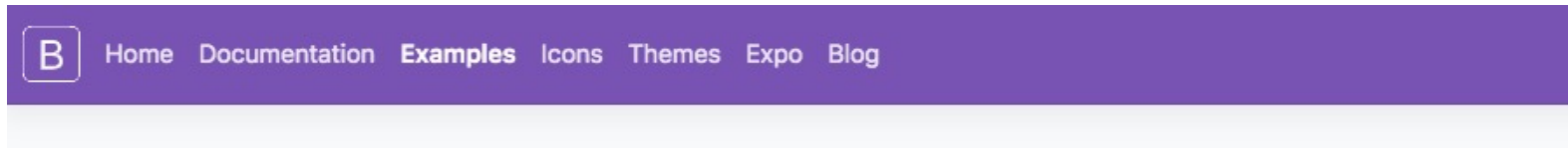
<https://unpkg.com/@popperjs/core@2>

# Bootstrap

Quickly design and customize responsive mobile-first sites with Bootstrap, the world's most popular front-end open source toolkit, featuring responsive grid system, extensive prebuilt components, and powerful JavaScript plugins.

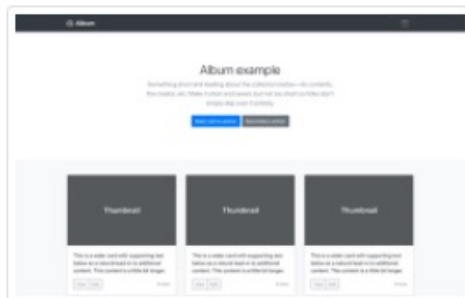
# Bootstrap examples

<https://getbootstrap.com/docs/4.5/examples/>



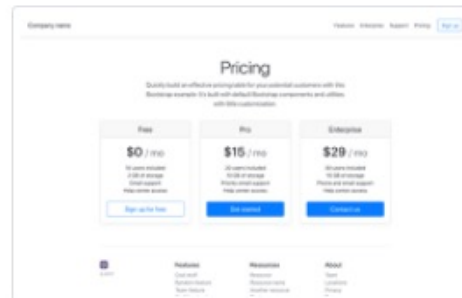
## Custom components

Brand new components and templates to help folks quickly get started with Bootstrap and demonstrate best practices for adding o framework.



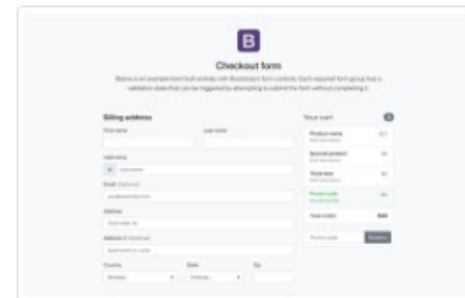
### Album

Simple one-page template for photo galleries, portfolios, and more.



### Pricing

Example pricing page built with Cards and featuring a custom header and footer.



### Checkout

Custom checkout form showing our form components and their validation features.



# Inclusion, CDN and starter template

<https://getbootstrap.com/docs/4.5/getting-started/introduction/>

```
<!doctype html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/css/bootstrap.min.css">

    <title>Hello, world!</title>
  </head>
  <body>
    <h1>Hello, world!</h1>

    <!-- Optional JavaScript -->
    <!-- jQuery first, then Popper.js, then Bootstrap JS -->
    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js" integrity="sha384-DfXdz2htPH" ></script>
    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js" integrity="sha384-9" ></script>
    <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.0/js/bootstrap.min.js" integrity="sha384-9" ></script>
  </body>
</html>
```

Copy



# Bootstrap components

<https://getbootstrap.com/docs/4.5/components>

B

Home Documentation Examples Icons Themes Expo Blog

Search...

Components

Alerts

Badge

**Breadcrumb**

Buttons

Button group

Card

Carousel

Collapse

Dropdowns

Forms

Input group

Jumbotron

List group

Media object


Modal

Navs

Navbar

## Breadcrumb

Indicate the current page's location within a navigational hierarchy that automatically adds separators via CSS.

 Adobe Stock

Limited time offer: Get 10 free Adobe Stock images.  
ads via Carbon

### Example

Home

Home / Library

Home / Library / Data



# Bootstrap layout

<https://getbootstrap.com/docs/4.4/layout>

B

Home Documentation Examples Icons Themes Expo Blog

Search...

Getting started

Layout

Overview

Grid

Utilities for layout

Content

Components

Utilities


Extend

Migration

About

## Overview

Components and options for laying out your Bootstrap project, including wrapping containers, a powerful grid system, a flexible media object, and responsive utility classes.



Fast, secure, and scalable CI/CD for all your software projects. Try Buildkite today.

ads via Carbon

## Containers

Containers are the most basic layout element in Bootstrap and are **required when using our default grid system**. Containers are used to contain, pad, and (sometimes) center the content within them. While containers *can* be nested, most layouts do not require a nested container.

Bootstrap comes with three different containers:

# Bootstrap content

<https://getbootstrap.com/docs/4.5/content>

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## Headings and paragraphs

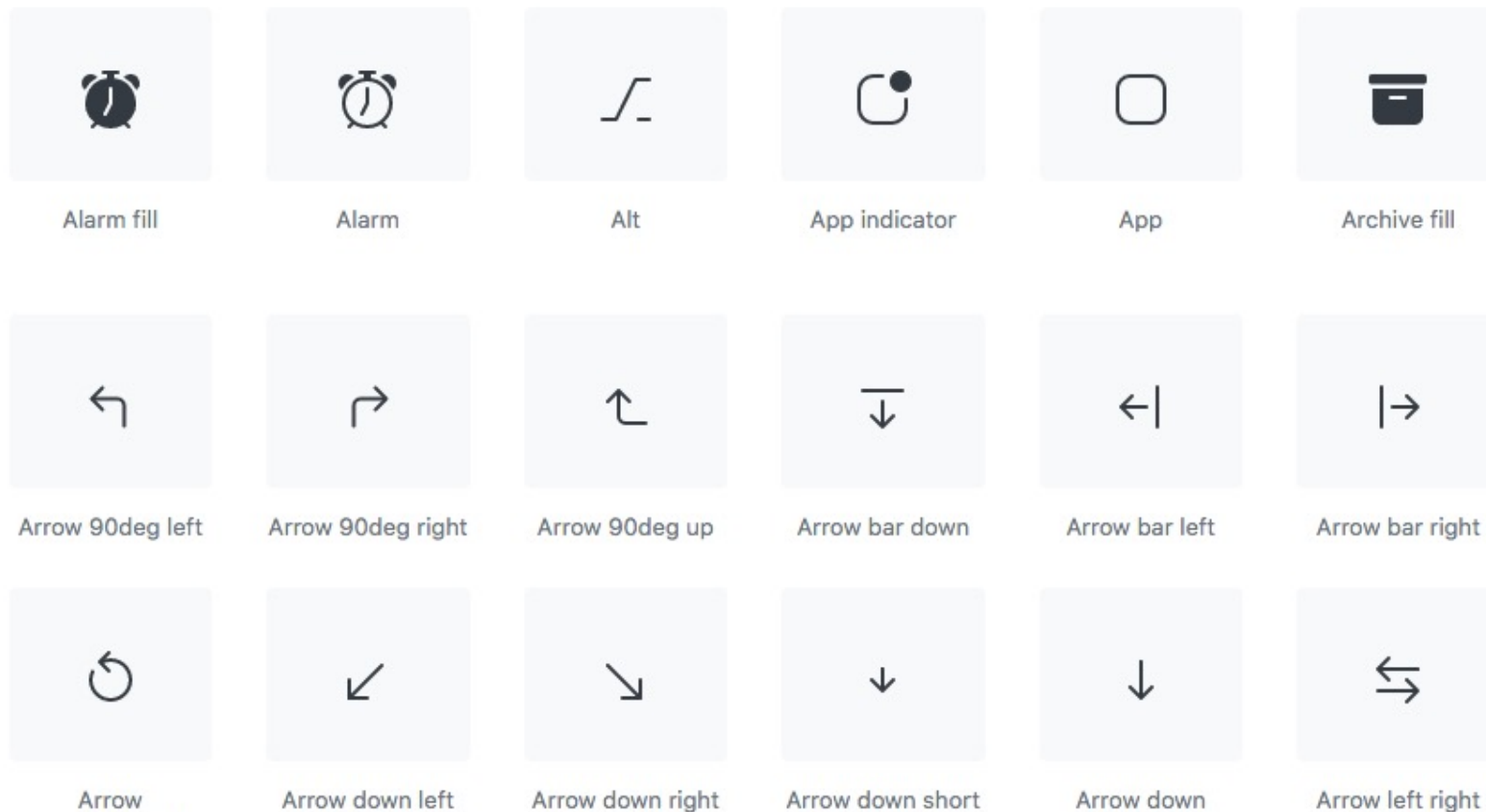
All heading elements—e.g., `<h1>`—and `<p>` are reset to have their `margin-top` removed. Headings have `margin-bottom: .5rem` added and paragraphs `margin-bottom: 1rem` for easy spacing.

Heading	Example
<code>&lt;h1&gt;&lt;/h1&gt;</code>	<b>h1. Bootstrap heading</b>
<code>&lt;h2&gt;&lt;/h2&gt;</code>	<b>h2. Bootstrap heading</b>
<code>&lt;h3&gt;&lt;/h3&gt;</code>	<b>h3. Bootstrap heading</b>
<code>&lt;h4&gt;&lt;/h4&gt;</code>	<b>h4. Bootstrap heading</b>
<code>&lt;h5&gt;&lt;/h5&gt;</code>	<b>h5. Bootstrap heading</b>
<code>&lt;h6&gt;&lt;/h6&gt;</code>	<b>h6. Bootstrap heading</b>

# Bootstrap icons

<https://icons.getbootstrap.com/>

## Icons



# Example 1: Button groups & dropdowns

```
<div class="container">
  <h2>Nesting Button Groups</h2>
  <p>Nest button groups to create dropdown menus:</p>
  <div class="btn-group">
    <button type="button" class="btn btn-primary">Apple</button>
    <div class="btn-group">
      <button type="button" class="btn btn-primary dropdown-toggle" data-toggle="dropdown">
        Sony
      </button>
      <div class="dropdown-menu">
        <a class="dropdown-item" href="#">Tablet</a>
        <a class="dropdown-item" href="#">Smartphone</a>
      </div>
    </div>
    <button type="button" class="btn btn-primary">Samsung</button>
  </div>
</div>

</body>
</html>
```

## Nesting Button Groups

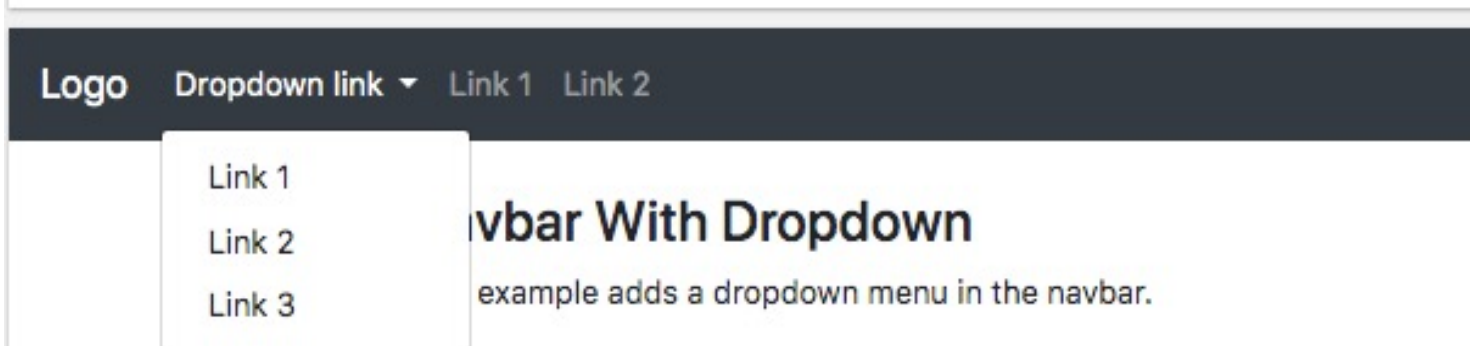
Nest button groups to create dropdown menus:



# Example 2: Navigation bar & dropdown

```
<li class="nav-item dropdown">
  <a class="nav-link dropdown-toggle" href="#" id="navbardrop" data-toggle="dropdown">
    Dropdown link
  </a>
  <div class="dropdown-menu">
    <a class="dropdown-item" href="#">Link 1</a>
    <a class="dropdown-item" href="#">Link 2</a>
    <a class="dropdown-item" href="#">Link 3</a>
  </div>
</li>
<li class="nav-item">
  <a class="nav-link" href="#">Link 1</a>
</li>
<li class="nav-item">
  <a class="nav-link" href="#">Link 2</a>
</li>
</ul>
</nav>
<br>

<div class="container">
  <h3>Navbar With Dropdown</h3>
  <p>This example adds a dropdown menu in the navbar.</p>
</div>
```



# Example 3: Carousel

```
<body>

<div id="demo" class="carousel slide" data-ride="carousel">

  <!-- Indicators -->
  <ul class="carousel-indicators">
    <li data-target="#demo" data-slide-to="0" class="active"></li>
    <li data-target="#demo" data-slide-to="1"></li>
    <li data-target="#demo" data-slide-to="2"></li>
  </ul>

  <!-- The slideshow -->
  <div class="carousel-inner">
    <div class="carousel-item active">
      
    </div>
    <div class="carousel-item">
      
    </div>
    <div class="carousel-item">
      
    </div>
  </div>

  <!-- Left and right controls -->
  <a class="carousel-control-prev" href="#demo" data-slide="prev">
    <span class="carousel-control-prev-icon"></span>
  </a>
  <a class="carousel-control-next" href="#demo" data-slide="next">
    <span class="carousel-control-next-icon"></span>
  </a>
</div>

</body>
```



# Example 4: Containers, rows, images

```
<body>

<div class="container-fluid">
  <div class="row">
    <div class="col-sm-3" style="background-color:lavender;"><div class="container">
      <h2>Rounded Corners</h2>
      
    </div></div>
    <div class="col-sm-3" style="background-color:lavenderblush;"><div class="container">
      <h2>Circle</h2>
      
    </div></div>
  </div>
</div>

</body>
</html>
```

## Rounded Corners



## Circle



# If you want to practice...

- <https://www.w3schools.com/bootstrap4/default.asp>

The screenshot shows the W3Schools website with the 'BOOTSTRAP' tab selected in the top navigation bar. On the left, a sidebar lists various Bootstrap 4 topics, with 'BS4 HOME' highlighted. The main content area is titled 'Bootstrap 4 Tutorial' and includes a '< Home' button. A green box contains text stating that Bootstrap 4 is the newest version of Bootstrap, which is a popular framework for responsive, mobile-first websites. Below this, it says 'Bootstrap 4 is completely free to download and use!' and features a 'Start learning Bootstrap 4 now >' button. Further down, a section titled 'Try it Yourself Examples' explains that the tutorial contains hundreds of examples and that users can edit code in an online editor to see the results. At the bottom, there are two overlapping preview cards for 'My First Bootstrap' and 'My First Bootstrap Page'.

W3SCHOOLS.COM THE

HTML CSS JAVASCRIPT SQL PYTHON PHP **BOOTSTRAP** HOW TO W3.CSS JQUERY M

Bootstrap 4 Tutorial

**BS4 HOME**

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## Bootstrap 4 Tutorial

[< Home](#)

Bootstrap 4 is the newest version of [Bootstrap](#), which is the most popular HTML, CSS, and JavaScript framework for creating responsive, mobile-first websites.

Bootstrap 4 is completely free to download and use!

[Start learning Bootstrap 4 now >](#)

## Try it Yourself Examples

This Bootstrap 4 tutorial contains hundreds of Bootstrap 4 examples.

With our online editor, you can edit the code, and click on a button to view the result.

My First Bootstrap

My First Bootstrap Page