

CSS Tutorial & Exercises

Ex 1 - Basic inline CSS

Type in the following and see the effect of **in-line CSS**.

```
<html>

<head>
<title>Style Sheet</title>

</head>

<body>
<!--This is the CSS lab 1 -- inline CSS -->

<p> This text does not have any style applied to it </p>

<p style="font-size: 20pt"> This text has the
<em>font-size</em> style applied to it , making it 20pt.</p>

<p style="font-size: 20pt; color: #0000ff"> This text has the
<em>font-size</em> style and <em>color</em> applied to it , making it 20pt and blue.</p>

</body>

</html>
```

Output:

This text does not have any style applied to it

This text has the *font-size* style applied to it , making it 20pt.

This text has the *font-size* style and *color applied to it , making it 20pt and blue.*

Ex2 - Embedded Style Sheets

```
head>
<title>Embedded Style Sheet</title>
<style type ="text/css">
    em      { background-color: #8000ff;
              color: white}
    h1      { font-family: arial, san-serif; color: orange}
    p       { font-size: 30 pt}
    .special {color: red}
</style>
</head>

<body>

<h1 class = "special">The brown fox jumps over the lazy dog!! </h1>

<p> I have never seen such thing before </p>

<h1> Well, there is nothing new under the sun!! </h1>

<em> Things just go on a cycle, and this is so-called fashion </em>

<p class="special">Well a demo of <em>special</em> effect </p>

</body>
```

Output

The brown fox jumps over the lazy dog!!

I have never seen such thing before

Well, there is nothing new under the sun!!

Things just go on a cycle, and this is so-called fashion

Well a demo of *special* effect

Style Class

Please note the use of **style class** named **special**. The style classes define style that can be applied to any type of element. We can apply this style to elements of any type, whereas the other rules in this style apply only to specific element type. **Note that style class declarations are preceded by a period.**

CSS rules in embedded style sheets use the same syntax as inline styles; the property name is followed by a **colon (:)**, and the value of the property. Semicolons separate multiple properties (;).

background-color specifies the background color of the element

font-family property specifies the background color of the element.

Style Inheritance

All the styles applied to an element (the parent or ancestor element) also apply to the element's nested elements (child or descendant elements). The `em` element nested in the `p` element **inherits** the style from the `p` element but retains its italic style. The `em` element has its own color property, so it overrides the color property of the **special** class.

Cascading style sheets are “cascading” because style may be defined by a user, another or a user agent (e.g. a web browser). Styles “cascade,” or flow together, such that the ultimate appearance of the element on a page results from combining style

defined in several ways. Styles defined by the user take precedence over style defined by the user agent, and styles defined by authors take precedence over style defined by the user. Styles defined for parent elements are also inherited by child (nested) elements.

When style conflict occurs, the conflicts are resolved in favor of properties with a higher specificity. If the style explicitly defined for a child element is more specific than the style defined for the child's parent element; therefore, the child's styles take precedence.

Ex 3 – Style Inheritance

```
<html>

<head>

<title>CSS inheritance demo - My shopping list </title>

<style type ="text/css">

    a.nodect {text-decoration: none}

    a:hover {text-decoration: underline;

              color: red;

              background-color: #ccffcc }

    li em   { color:red;

              font-weight: bold}

    ul      {margin-left: 75px}

    ul ul   { text-decoration: underline;

              margin-left: 15px }

</style>

</head>

<body>

    <h1>Shopping list for <em>Monday</em></h1>

    <ul>

        <li>Milk</li>

        <li>Bread

            <ul>

                <li>White bread</li>

                <li>Rye bread</li>

                <li>Whole wheat bread</li>

            </ul>

        </li>

        <li>Rice</li>

        <li>Prostates</li>

        <li>Pizza <em>with mushrooms</em></li>

    </ul>

    <p><a class = "nodect" href="http://www.food.com">

        Go to the Grocery store</a></p>

</body>

</html>
```

Output



text-decoration:none

When this property set to none, this is to indicate that the browser should not underline hyperlink. Other possible value for `text-decoration` include **overline**, **line-through**, **underline** and **blink**. (Blink is not supported by MS IE).

hover

This is a pseudoclass, this class gives the author access to content not specifically declared in the document. The hover pseudoclass is activated dynamically when the user moves the mouse cursor over an element. Note that pseudoclasses are separated by colon (with no surrounding spaces) from the name of the element to which they are applied.

Ex 4 – External Style Sheet

Type in the following in as separate file call **ext-style01.css**:

```
/* External Style Sheet */
/* Used by CSS-Ex4.htm */
a.nodect {text-decoration: none}

a:hover {text-decoration: underline;
         color: red;
         background-color: #ccffcc }

li em   { color:red;
         font-weight: bold}

ul      {margin-left: 75px}

ul ul   { text-decoration: underline;
         margin-left: 15px }
```

Output

Shopping list for *Monday*:

- Milk
- Bread
 - White bread
 - Rye bread
 - Whole wheat bread
- Rice
- Potatoes
- Pizza *with mushrooms*

[Go to the Grocery store](#)

Also type in the following HTML with the following code:

```
<html>

<head>
<title>CSS inheritance demo - My shopping list </title>
<link rel="stylesheet" type="text/css" href="ext-style01.css"/>
</head>

<body>
  <h1>Shopping list for <em>Monday</em>:</h1>
  <ul>
    <li>Milk</li>
    <li>Bread
      <ul>
        <li>White bread</li>
        <li>Rye bread</li>
        <li>Whole wheat bread</li>
      </ul>
    </li>
    <li>Rice</li>
    <li>Potatoes</li>
    <li>Pizza <em>with mushrooms</em></li>
  </ul>
  <p><a class = "nodec" href="http://www.food.com">
    Go to the Grocery store</a></p>
</body>

</html>
```

```
<link rel="stylesheet" type="text/css" href="ext-style01.css"/>
```

The above is to create a relationship (**rel="stylesheet"**) with some external file that is a stylesheet.

EX5 - Position Elements

```
<html>

<head>
<title>Absolute Positioning</title>
</head>

<body>

<p></p>

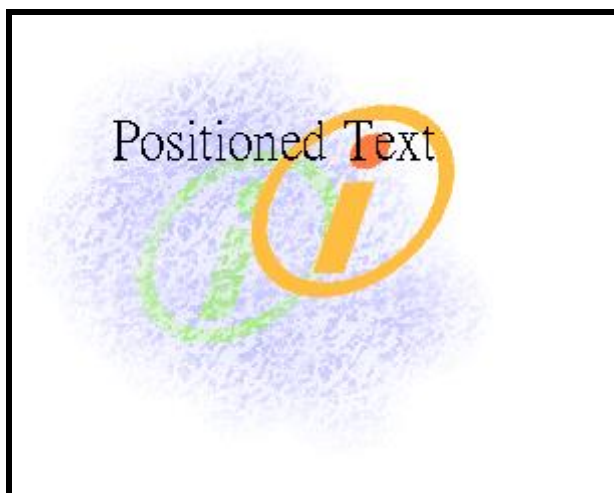
<p style = "position:absolute; top: 50px; left:50px; z-index:3;
font-size:20pt">Positioned Text</p>

<p></p>

</body>

</html>
```

Output



position: absolute

This removes the element from the normal flow of elements on the page, instead positioning it according to distance from top, left, right or bottom margins of its **containing block-level element** (i.e, an element such as a `body` or `p`). Here we position the element to be 0 pixels away from both the top and left margins of the `p` element.

z-index

This attribute allows you to layer overlapping element properly. **Elements that have higher z-index values are displayed in front of element with lower z-index values.**

Ex6 – Relative Position

```
<HTML>

<HEAD>

<TITLE>Relative Positioning</TITLE>

<STYLE type=text/css>

P {

    FONT-SIZE: 1.3em; FONT-FAMILY: verdana, arial, sans-serif

}

SPAN {

    FONT-SIZE: 0.6em; COLOR: red; HEIGHT: 1em

}

.super {

    POSITION: relative; TOP: -1ex

}

.sub {

    BOTTOM: -1ex; POSITION: relative

}

.shiftleft {

    LEFT: -1ex; POSITION: relative

}

.shiftright {

    RIGHT: -1ex; POSITION: relative

}

</STYLE>

</HEAD>

<BODY>

<P>The text at the end of this sentence <SPAN class=super>is in
superscript</SPAN>.</P>

<P>The text at the end of this sentence <SPAN class=sub>is in
subscript</SPAN>.</P>

<P>The text at the end of this sentence <SPAN class=shiftleft>is shifted
left</SPAN>.</P>

<P>The text at the end of this sentence <SPAN class=shiftright>is shifted
right</SPAN>.</P>

</BODY>
```

Output

The text at the end of this sentence ^{is in superscript}.

The text at the end of this sentence _{is in subscript}.

The text at the end of this sentence is shifted left .

The text at the end of this sentence is shifted right .

Relative position

Setting the `position` property to `relative`, as in class `super`, lays out the elements on the page and offsets it by the specified `top`, `bottom`, `left` or `right` value. Unlike absolute positioning, relative positioning keeps elements in the general flow of elements on the page, so positioning is relative to other elements in the flow.

Span and Div Elements

The `span` element is a generic grouping element; it does not apply any inherent formatting to its contents. Its main use is to apply styles or `id` attributes to a block of text. Element `span` is displayed inline (an inline element) with other text and with no line breaks. A similar element, which also applies no inherent styles, but it displayed on a separate line, with margins above and below (a block-level element).

Ex7 – Background

```
<html>
  <head>
    <title>Background Images</title>

    <style type = "text/css">

      body { background-image: url(logo.gif);
              background-position: bottom right;
              background-repeat: no-repeat;
              background-attachment: fixed; }

      p    { font-size: 18pt;
              color: #aa5588;
              text-indent: 1em;
              font-family: arial, sans-serif; }

      .dark { font-weight: bold }

    </style>
  </head>

  <body>

    <p>
      This example uses the background-image,
      background-position and background-attachment
      styles to place the <span class = "dark">Deitel
      & Associates, Inc.</span> logo in the bottom,
      right corner of the page. Notice how the logo
      stays in the proper position when you resize the
      browser window.
    </p>

  </body>
</html>
```

This example uses the background-image, background-position and background-attachment styles to place the **Deitel & Associates, Inc.** logo in the bottom, right corner of the page. Notice how the logo stays in the proper position when you resize the browser window.



Using Background

- **background-image**
 - Specifies the image URL
- **background-position**
 - Places the image on the page
- **background-repeat**
 - Controls the tiling of the background image
- **background-attachment**
 - **fixed**
 - **scroll**
- **font-weight**
 - Specify the “boldness” of text

Ex8 - Element Dimensions

CSS rules can specify the actual dimensions of each page element

Text Float & Box Model

```
<html>
  <head>
    <title>Flowing Text Around Floating Elements</title>

    <style type = "text/css">

      div { background-color: #ffccff;
        margin-bottom: .5em;
        font-size: 1.5em;
        width: 50% }

      p   { text-align: justify }

    </style>

  </head>

  <body>

    <div style = "text-align: center">
      Deitel & Associates, Inc.</div>

    <div style = "float: right; margin: .5em;
      text-align: right">
      Corporate Training and Publishing</div>

    <p>Deitel & Associates, Inc. is an internationally
      recognized corporate training and publishing organization
      specializing in programming languages, Internet/World
      Wide Web technology and object technology education.
      The company provides courses on Java, C++, Visual Basic, C, Internet
```

```
and World Wide Web programming, and Object Technology.</p>
```

```
<div style = "float: right; padding: .5em;
text-align: right">
```

```
Leading-Edge Programming Textbooks</div>
```

```
<p>The company's clients include many Fortune 1000
companies, government agencies, branches of the military
and business organizations.</p>
```

```
<p style = "clear: right">Through its publishing
partnership with Prentice Hall, Deitel & Associates,
Inc. publishes leading-edge programming textbooks,
professional books, interactive CD-ROM-based multimedia
Cyber Classrooms, satellite courses and World Wide Web
courses.</p>
```

```
</body>
```

Deitel & Associates, Inc.

Deitel & Associates, Inc. is an internationally recognized corporate training and publishing organization specializing in programming languages, Internet/World Wide Web technology and object technology education. The company provides courses on Java, C++, Visual Basic, C, Internet and World Wide Web programming, and Object Technology.

Corporate Training and Publishing

The company's clients include many Fortune 1000 companies, government agencies, branches of the military and business organizations.

Leading-Edge Programming Textbooks

Through its publishing partnership with Prentice Hall, Deitel & Associates, Inc. publishes leading-edge programming textbooks, professional books, interactive CD-ROM-based multimedia Cyber Classrooms, satellite courses and World Wide Web courses.

- Floating
 - Move an element to one side of the screen
- Box model
 - Margins
 - margin-top, margin-right, margin-left, margin-bottom
 - Padding
 - padding-top, padding-right, padding-left, and padding-bottom
 - Border
 - border-width
 - thin, medium, thick
 - border-color

- Sets the color
- border-style
 - none, hidden, dotted, dashed, solid, double, groove, ridge, inset and outset

Ex9 - Border of Block Level Element (Based on the Box Model)

```
<html>
  <head>
    <title>Borders</title>

    <style type = "text/css">

      body    { background-color: #ccffcc }

      div     { text-align: center;
                margin-bottom: 1em;
                padding: .5em }

      .thick  { border-width: thick }

      .medium { border-width: medium }

      .thin   { border-width: thin }

      .groove { border-style: groove }

      .inset  { border-style: inset }

      .outset { border-style: outset }

      .red    { border-color: red }

      .blue   { border-color: blue }

    </style>
  </head>
```

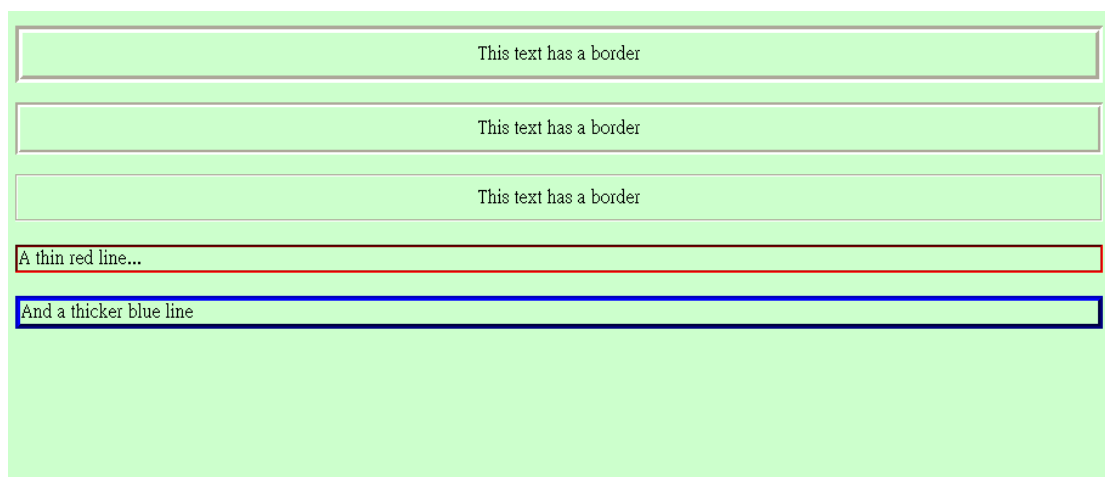
```
<body>

  <div class = "thick groove">This text has a border</div>
  <div class = "medium groove">This text has a border</div>
  <div class = "thin groove">This text has a border</div>

  <p class = "thin red inset">A thin red line...</p>
  <p class = "medium blue outset">
    And a thicker blue line</p>

</body>
</html>
```

Output



Ex 10 – Build a Webpage for a Birthday Party

Build a Birthday Party webpage similar to the one shown in [Figure 1](#) and [Figure 2](#). Students may make use of a template (*template02.html*) provided to complete this exercise. An external CSS file (*mystyle.css*) should be created to style the template (*template02.html*) according to the specification as listed below with some **modifications**:

Properties	Specification
Top banner	<ul style="list-style-type: none">• Search for a new image (change the provided image)• Text color: (change to any new color - not yellow)• Height: 4.0em
Background	<ul style="list-style-type: none">• Search for a new image (change the provided image)
Body text	<ul style="list-style-type: none">• Default text color: navy• Font type: Arial, Verdana
Header	<ul style="list-style-type: none">• h1, h2: text aligned to center• h3: font weight is bold
List items	<ul style="list-style-type: none">• All list items' color should be in maroon• Font style should be italic• Indent each list item 30px• Font weight set bold• Add 3px for padding
Color for boxes surrounding lists	<ul style="list-style-type: none">• The first one should apply yellow color• The second one should apply cyan color• The final one should apply violet color• All boxes have round corners (10px)• No background color for each box
Grooving of boxes	<ul style="list-style-type: none">• All boxes surrounding list should be thin outset grooves
List	<ul style="list-style-type: none">• List background color should be none• Disable bullets of all lists• Padding is 0.2em• Margin: 0.1em
Paragraph	<ul style="list-style-type: none">• Font color of each paragraph should be in blue• Font size should be set to 1.2em
Two hyperlinks	<ul style="list-style-type: none">• Two hyperlinks should be specified at the bottom each pointing to HKU SPACE CC and HKU SPACE

	<p>respectively.</p> <ul style="list-style-type: none"> Any new webpage triggered by clicking these links should be opened in new windows.
Dynamic effect of hyperlink	<ul style="list-style-type: none"> The default color of link should be in red. It should response to mouse rollover and turns to a black background with gold wording underlined.



Figure 1 (image for reference only, refer to the specifications for exact requirements)



Figure 2 (cont'd of Figure 1 - image for reference only, refer to the specifications for exact requirements)