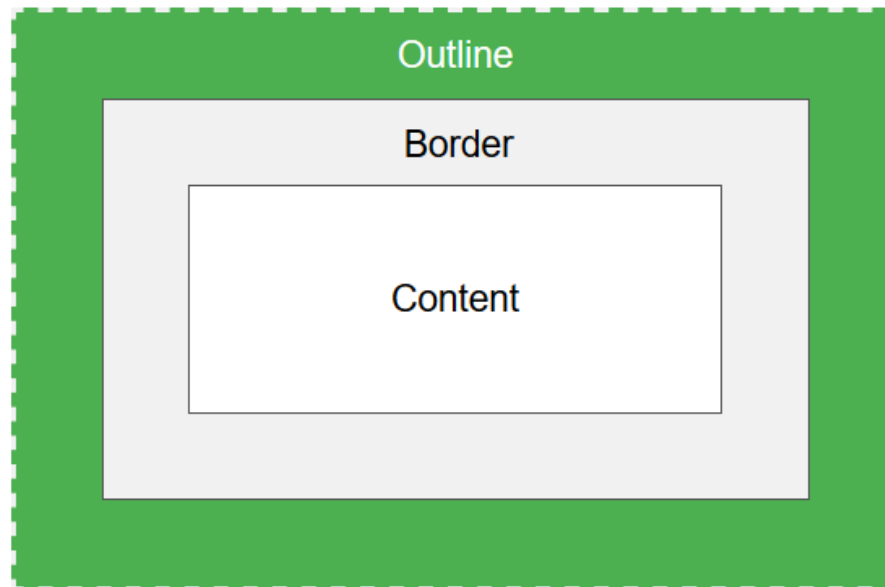


Cascading Style Sheet (CSS)

Part 02

CSS Outline

- An outline is a line that is drawn around elements, OUTSIDE the borders, to make the element "stand out".
- Primary purpose is **accessibility**



Outlines vs Borders

- 1) Outlines do not take up space
- 2) Unlike borders, outlines won't allow us to set each edge to a different width, or set different colors and styles for each edge
- 3) Outlines don't have any impact on surrounding elements apart from overlapping.
- 4) Unlike borders, outlines don't change the size or position of the element.

Outlines vs Borders

- 5) Outlines may be non-rectangular.
- 6) It's not a part of the *box model*, so it won't affect the position of the element or adjacent elements

Outlines Properties

- outline-style
- outline-color
- outline-width
- outline-offset
- outline

Outline Style

p.dotted {outline-style: dotted;}

A dotted outline

p.dashed {outline-style: dashed;}

A dashed outline

p.solid {outline-style: solid;}

A solid outline

p.double {outline-style: double;}

A double outline

p.groove {outline-style: groove;}

A groove outline.

p.ridge {outline-style: ridge;}

A ridge outline.

p.inset {outline-style: inset;}

An inset outline.

p.outset {outline-style: outset;}

An outset outline.

Outline Color

- **name** - specify a color name, like "red"
- **RGB** - specify a RGB value, like "rgb(255,0,0)"
- **Hex** - specify a hex value, like "#ff0000"
- **invert** - performs a color inversion (which ensures that the outline is visible, regardless of color background)

Outline Width

- thin (typically 1px)
- Medium (typically 3px)
- thick (typically 5px)
- A specific size (in px, pt, cm, em, etc)

Outline - Shorthand property

- outline-width
- outline-style (required)
- outline-color

```
p.ex1 {outline: dashed;}
```

```
p.ex2 {outline: dotted red;}
```

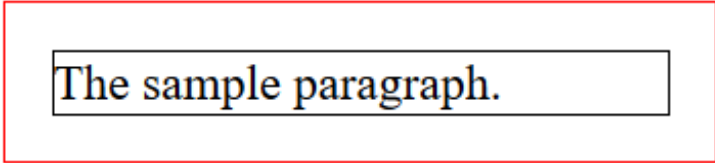
```
p.ex3 {outline: 5px solid yellow;}
```

```
p.ex4 {outline: thick ridge pink;}
```

Outline - Offset

- The `outline-offset` property adds space between an outline and the edge/border of an element.
- The space between an element and its outline is transparent.

```
p {  
    margin: 30px;  
    width: 200px;  
    border: 1px solid black;  
    outline: 1px solid red;  
    outline-offset: 15px;  
}
```



The sample paragraph.

Accessibility Usecase

- It is often used for accessibility reasons, to emphasize a link when tabbed to without affecting positioning and in a different way than hover.

```
a:focus {  
    outline: 3px dashed red;  
}
```

```
<a href="http://www.ddu.ac.in/">Dharmsinh Desai University</a>
```

Dharmsinh Desai University

CSS Text

- color
- text-align (center, left, right, justify)
- text-decoration (none, overline, line-through, underline)
- text-transform (uppercase, lowercase, capitalize)
- text-indent
- letter-spacing
- line-height
- direction (rtl)
- word-spacing
- text-shadow (horizontal, vertical, color)

```
h1 {  
  text-shadow: 3px 2px red;  
}
```

Text-shadow effect

CSS Fonts

- The CSS font properties define the font family, boldness, size, and the style of a text.

Difference Between Serif and Sans-serif Fonts



Sans-serif



Serif



Serif
(red serifs)

CSS Font Families

Generic family	Font family	Description
Serif	Times New Roman Georgia	Serif fonts have small lines at the ends on some characters
Sans-serif	Arial Verdana	"Sans" means without - these fonts do not have the lines at the ends of characters
Monospace	Courier New Lucida Console	All monospace characters have the same width

Font Family

- The `font-family` property should hold several font names as a "fallback" system.
- If the browser does not support the first font, it tries the next font, and so on.

```
p {  
    font-family: "Times New Roman", Times, serif;  
}
```

Font Style

- **normal** - The text is shown normally
- **italic** - The text is shown in italics
- **oblique** - The text is "leaning" (oblique is very similar to italic, but less supported)

Font Size

The font-size value can be an **absolute**, or **relative** size.

Absolute size:

- Sets the text to a specified size
- Does not allow a user to change the text size in all browsers (bad for accessibility reasons)
- Absolute size is useful when the physical size of the output is known

Relative size:

- Sets the size relative to surrounding elements
- Allows a user to change the text size in browsers

Absolute Length Units

Unit	Name	Equivalent to
cm	Centimeters	$1\text{cm} = 38\text{px} = 25/64\text{in}$
mm	Millimeters	$1\text{mm} = 1/10\text{th of } 1\text{cm}$
Q	Quarter-millimeters	$1\text{Q} = 1/40\text{th of } 1\text{cm}$
in	Inches	$1\text{in} = 2.54\text{cm} = 96\text{px}$
pc	Picas	$1\text{pc} = 1/6\text{th of } 1\text{in}$
pt	Points	$1\text{pt} = 1/72\text{th of } 1\text{in}$
px	Pixels	$1\text{px} = 1/96\text{th of } 1\text{in}$

Relative Length Units

Unit	Relative to
em	Font size of the parent (font-size , width)
ex	x-height of the element's font.
ch	Adv. measure (width) of the glyph "0" of the element's font.
rem	Font size of the root element.
lh	Line height of the element.
vw	1% of the viewport's width.
vh	1% of the viewport's height.
vmin	1% of the viewport's smaller dimension.
vmax	1% of the viewport's larger dimension.

Set Font Size With Em

- Used to resize the text
- The **em** size unit is recommended by the W3C
- 1em is equal to the current font size (16px)
- formula:

$$\text{pixels}/16 = \text{em}$$

```
font-size: 2.5em;    /* 40px/16 = 2.5em    */
```

```
font-size: 1.875em; /* 30px/16 = 1.875em */
```

```
font-size: 0.875em; /* 14px/16 = 0.875em */
```

Font Weight

```
p.normal {  
    font-weight: normal;  
}
```

```
p.thick {  
    font-weight: bold;  
}
```

Responsive Font Size

- The text size can be set with a **vw** unit, which means the "**viewport width**".
- That way the text size will follow the size of the browser window:

Responsive Font Size (ex.)

```
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<body>

<h1 style="font-size:10vw;">Responsive Text</h1>

<p style="font-size:5vw;">Resize the browser window </p>

<p style="font-size:5vw;">10vw = 10% of the viewport width.</p>

<p> 1vw = 1% of viewport width.</p>
<p> If the viewport is 50cm wide, 1vw is 0.5cm.</p>

</body>
</html>
```

Responsive Font Size (output)

Responsive Text

Resize the browser window

10vw = 10% of the viewport width.

1vw = 1% of viewport width.

If the viewport is 50cm wide, 1vw is 0.5cm.

```
<h1 style="font-size:10vw;
```

```
<p style="font-size:5vw;">
```

```
<p style="font-size:5vw;">
```

```
<p> 1vw = 1% of viewport w
```

```
<p> If the viewport is 50c
```

```
.. .
```


Font Variant

```
h2.normal {  
    font-variant: normal;  
}
```

```
h2.small {  
    font-variant: small-caps;  
}
```

Test for Font Variant.

TEST FOR FONT VARIANT.

Styling Links

- Links can be styled with any CSS property (e.g. color, font-family, background, etc.)

```
a {  
    color: hotpink;  
}
```

- links can be styled differently depending on what state they are in.

[a:link](#) - a normal, unvisited link

[a:visited](#) - a link the user has visited

[a:hover](#) - a link when the user mouses over it

[a:active](#) - a link the moment it is clicked

CSS List Properties

```
ul.a {  
  list-style-type: circle;  
}
```

- Coffee
- Tea
- Cold Drink

```
ul.b {  
  list-style-type: square;  
}
```

- Coffee
- Tea
- Cold Drink

```
ol.c {  
  list-style-type: upper-roman;  
}
```

- I. Coffee
- II. Tea
- III. Cold Drink

```
ol.d {  
  list-style-type: lower-alpha;  
}
```

- a. Coffee
- b. Tea
- c. Cold Drink

An Image as The List Item Marker

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

```
<ul>  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Cold Drink</li>  
</ul>
```



Coffee



Tea



Cold Drink

Position The List Item Markers

The **list-style-position** property specifies the position of the list-item markers (bullet points).

```
ul.a {  
    list-style-position: outside;  
}
```

```
ul.b {  
    list-style-position: inside;  
}
```

- Coffee - A brewed drink prepared from roasted coffee berries from the Coffea plant
 - Tea - An aromatic beverage prepared from the cured leaves of the Camellia sinensis plant
-
- Coffee - A brewed drink prepared from roasted coffee berries from the Coffea plant
 - Tea - An aromatic beverage prepared from the cured leaves of the Camellia sinensis plant

List - Shorthand property

```
ul {  
    list-style: square inside url("sqpurple.gif");  
}
```

- Coffee
- Tea
- Cold Drink

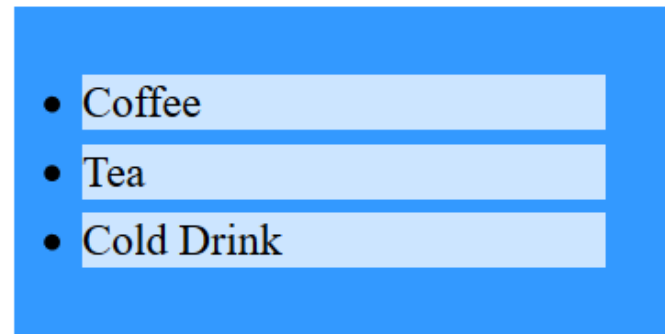
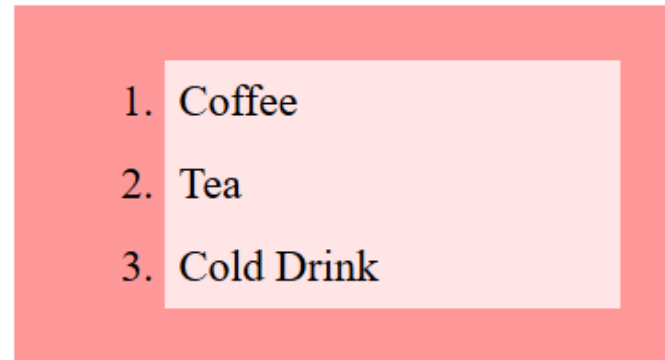
Styling List With Colors

```
ol {  
  background: #ff9999;  
  padding: 20px;  
  width: 200px;  
}
```

```
ul {  
  background: #3399ff;  
  padding: 20px;  
  width: 200px;  
}
```

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

```
ul li {  
  background: #cce5ff;  
  margin: 5px;  
}
```



Styling Tables (ex.)

```
#customers {
    font-family: "Trebuchet MS", Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

#customers td, #customers th {
    border: 1px solid #ddd;
    padding: 8px;
}

#customers tr:nth-child(even){background-color: #f2f2f2;}

#customers tr:hover {background-color: #ddd;}

#customers th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #4CAF50;
    color: white;
}

<table id="customers">
```


Styling Tables (output)

Company	Contact	Country
Alfreds Futterkiste	Maria Anders	Germany
Berglunds snabbköp	Christina Berglund	Sweden
Centro comercial Moctezuma	Francisco Chang	Mexico
Ernst Handel	Roland Mendel	Austria
Island Trading	Helen Bennett	UK
Königlich Essen	Philip Cramer	Germany
Laughing Bacchus Winecellars	Yoshi Tannamuri	Canada
Magazzini Alimentari Riuniti	Giovanni Rovelli	Italy
North/South	Simon Crowther	UK
Paris spécialités	Marie Bertrand	France

CSS Layout - The display Property

The display property specifies if/how an element is displayed.

- none
- block
- inline
- inline-block

Block-level Elements

A block-level element always starts on a new line and takes up the full width available
(stretches out to the left and right as far as it can)

- `<div>`
- `<h1>` - `<h6>`
- `<p>`
- `<form>`
- `<header>`
- `<footer>`
- `<section>`

Inline Elements

An inline element does not start on a new line and only takes up as much width as necessary

- ``
- `<a>`
- ``
- ``
- ``
- `<i>`
- `<small>`

Display Property (ex.)

display: none

The element will be hidden

display: inline

Displays an element as an inline element. Any height and width properties will have no effect

display: block

Displays an element as a block element. It starts on a new line, and takes up the whole width

visibility: hidden

Hides an element. The element will still take up the same space as before. Node will not be removed from the DOM.

Display Property (ex.)

```
a {  
    display: block;  
}
```

```
a {  
    display: inline;  
}
```

[HTML](#)
[CSS](#)
[JavaScript](#)

[HTML](#) [CSS](#) [JavaScript](#)

References

- <https://www.w3schools.com/css/>
- <https://www.tutorialrepublic.com/css-tutorial/css-outline.php>
- <https://developer.mozilla.org/en-US/docs/Web/CSS>