

[Lesson 10]

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[What we learnt last time?]

- 3 different ways of including fonts into your project
- Font families: serif, sans-serif, monospace, proportional, script, fantasy
- Web safe fonts - what does it mean
- HTML-forms: types of inputs, required attributes
- How to combine all icons from page into one big picture and how to use it

[Our targets for today]

- How to create a table with header, footer and content
- How to combine table cells horizontally and vertically
- Background color with gradient
- Difference between radial and linear gradient;
- How to add shadow for a text
- How to add colorful shadow for block elements

[Tables]

- An HTML table is defined with the `<table>` tag
- Each table row is defined with the `<tr>` tag
- A table header is defined with the `<th>` tag
 - By default, table headings are bold and centered
- A table data/cell is defined with the `<td>` tag

```
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
```

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

[Tables – Adding a Border]

- If you do not specify a border for the table, it will be displayed without borders.
- A border is set using the CSS **border** property:

```
table, th, td {  
    border: 1px solid black;  
}
```

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

- If you want the borders to collapse into one border, use **border-collapse** property:

```
table, th, td {  
    border: 1px solid black;  
    border-collapse: collapse;  
}
```

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

[Tables – Adding a Caption]

- To add a caption to a table, use the `<caption>` tag
 - The `<caption>` tag must be inserted immediately after the `<table>` tag

```
<table>
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```

Month	Savings
January	\$100
February	\$50

[Tables – Cells That Span Many Columns]

→ To make a cell span more than one column, use the **colspan** attribute:

```
<table>
  <tr>
    <th>Name</th>
    <th colspan="2">Telephone</th>
  </tr>
  <tr>
    <td>Bill Gates</td>
    <td>55577854</td>
    <td>55577855</td>
  </tr>
</table>
```

Name	Telephone	
Bill Gates	55577854	55577855

[Tables – Cells That Span Many Rows]

→ To make a cell span more than one row, use the **rowspan** attribute:

```
<table>
  <tr>
    <th>Name:</th>
    <td>Bill Gates</td>
  </tr>
  <tr>
    <th rowspan="2">Telephone:</th>
    <td>55577854</td>
  </tr>
  <tr>
    <td>55577855</td>
  </tr>
</table>
```

Name:	Bill Gates
Telephone:	55577854
	55577855

[Exercise (1)]

→ Build the following table:

November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

[CSS Gradients]

- CSS gradients let you display smooth transitions between two or more specified colors
- CSS defines two types of gradients:
 - **Linear Gradients** (goes down/up/left/right/diagonally)
 - **Radial Gradients** (defined by their center)
- IE9 and earlier versions do not support gradients

Lorem ipsum dolor sit amet, vim
iisque interesset no, inani integre
deleniti ex mei, cu usu sint nominati.
At lorem malis habemus duo, in
recusabo nominati ius. Tollit scripserit
sit ex, duo ei labore definiebas. Eu qui
tempor aperiri blandit. Nam id
legendos scribentur, no erant congue
exerci qui, an quo accumsan oportere
consequuntur. Per et inani noluisse
eloquentiam, te nec habemus appareat
maiestatis, sea id meis aliquip impedit.

[Linear Gradients]

- To create a linear gradient you must define at least two color stops
- Color stops are the colors you want to render smooth transitions among
- You can also set a starting point and a direction (or an angle) along with the gradient effect
- Syntax:

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

[Linear Gradients]

→ Top to bottom (default)

```
#grad1 {  
  background: linear-gradient(blue, lightblue);  
}
```



→ Left to right

```
#grad2 {  
  background: linear-gradient(to right, blue,  
lightblue);  
}
```



→ Diagonal

```
#grad3 {  
  background: linear-gradient(to bottom right,  
blue, lightblue);  
}
```



[Using Angles]

- If you want more control over the direction of the gradient, you can define an angle, instead of the predefined directions
- Syntax:

```
background: linear-gradient(angle, color-stop1, color-stop2);
```

- The angle is specified as an angle between a horizontal line and the gradient line

```
#grad4 {  
  background: linear-gradient(30deg, yellow, red);  
}
```



[Using Transparency]

- CSS gradients also support transparency, which can be used to create fading effect.
- To add transparency, we use the `rgba()` function to define the color stops
- The following example shows a linear gradient that starts from the left fully transparent, transitioning to full color red:

```
#grad5 {  
  background: linear-gradient(to right, rgba(255,0,0,0), rgba(255,0,0,1));  
}
```



[Using Multiple Color Stops]

- The following example shows how to create a linear gradient (from left to right) with the color of the rainbow and some text:

```
#grad6 {  
  background: linear-gradient(to right, red, orange, yellow, green, blue, indigo, violet); text-align: center;  
  color: #888888; font-size: 40px; font-weight: bold  
}  
  
<div id="grad6"> Gradient Background  
</div>
```



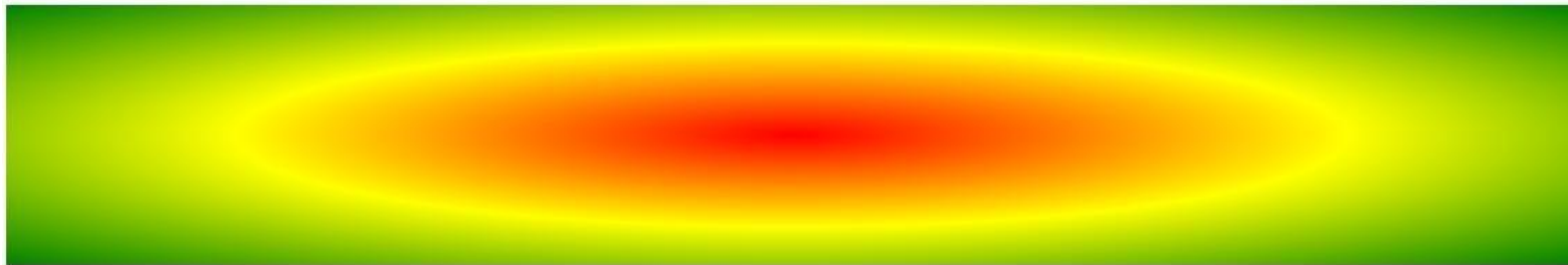
[Radial Gradients]

- A radial gradient is defined by its center
- Syntax:

```
background: radial-gradient(shape size at position, start-color, ..., last-color);
```

- By default, shape is ellipse, size is farthest-corner, and position is center
- The following example shows a radial gradient with evenly spaced color stops:

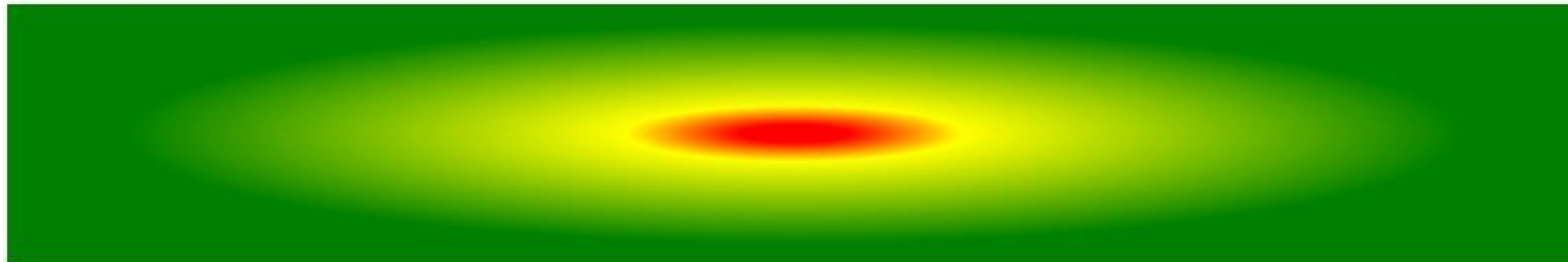
```
#grad1 {  
  background: radial-gradient(red, yellow, green);  
}
```



[Radial Gradients - Differently Spaced Color Stops]

- The following example shows a radial gradient with differently spaced color stops:

```
#grad2 {  
  background: radial-gradient(red 5%, yellow 15%, green 60%);  
}
```



[Set Shape]

- The shape parameter defines the shape. It can take the value circle or ellipse.
 - The default value is ellipse
- The following example shows a radial gradient with the shape of a circle:

```
#grad3 {  
  background: radial-gradient(circle, red, yellow, green);  
}
```



[CSS Shadows]

- With CSS you can add shadow to text and to elements
- The **text-shadow** property applies shadow to text
- In its simplest use, you only specify the horizontal shadow and the vertical shadow:

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

Text-shadow effect

- Next, add a color to the shadow:

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

Text-shadow effect

- Then, add a blur effect to the shadow:

```
h1 {  
  text-shadow: 2px 2px 5px red;  
}
```

Text-shadow effect

[Multiple Shadows]

- To add more than one shadow to the text, you can add a comma-separated list of shadows
- The following example shows a white text with black, blue, and darkblue shadow:

```
h1.multiple-shadows { color: white;  
    text-shadow: 1px 1px 2px black, 0 0 25px blue, 0 0 5px darkblue;  
}
```

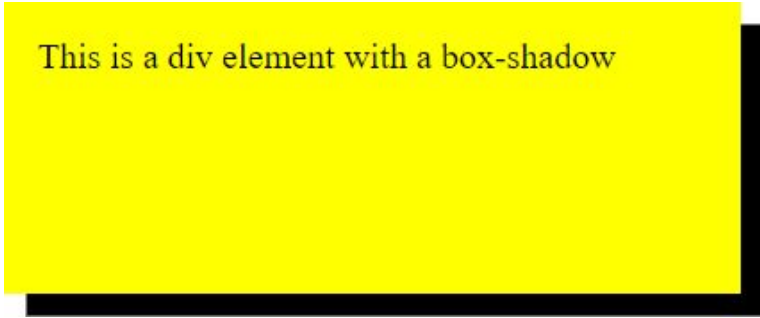
Text-shadow effect

[Box Shadow]

- The CSS **box-shadow** property applies shadow to elements
- In its simplest use, you only specify the horizontal shadow and the vertical shadow:

```
div {  
  width: 300px; height: 100px;  
  padding: 15px;  
  background-color: yellow;  
  box-shadow: 10px 10px;  
}
```

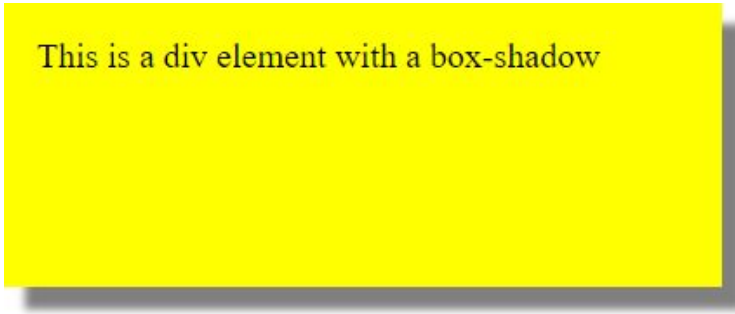
This is a div element with a box-shadow



- You can also add a color and a blur effect to the shadow:

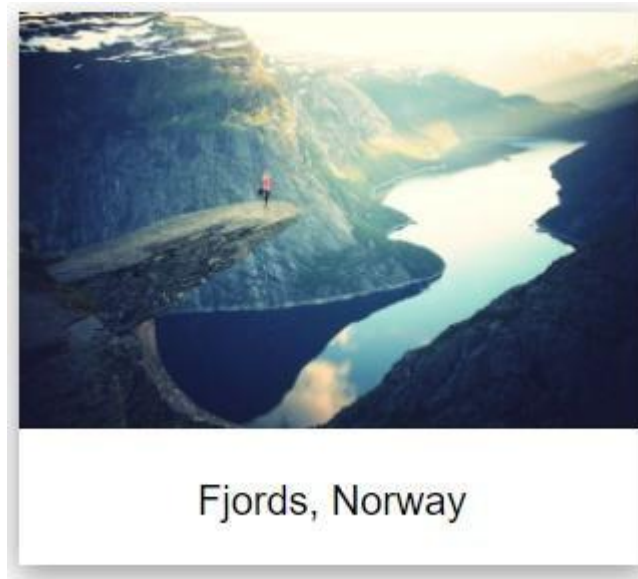
```
div {  
  width: 300px; height: 100px; padding:  
  15px;  
  background-color: yellow;  
  box-shadow: 10px 10px 5px grey;  
}
```

This is a div element with a box-shadow



[Exercise (2)]

→ Use the box-shadow property to create a paper-like card:



[Control questions]

- How to create table header?
- how to combine 3 `<td>` elements horizontally?
- How to combine 2 `<th>` elements vertically?
- How to create table footer?
- What is difference between linear and radial gradients?
- What is the syntax of text-shadow?
- How to create grey shadow for `<div>`?

[Materials]

Core materials:

<https://html5book.ru/html-table/>

https://puzzleweb.ru/css/9_table.php

<https://html5book.ru/html5-semantic-elements/>

<https://html5book.ru/css3-text/>

<https://html5book.ru/css3-ten-teksta/>

<https://html5book.ru/css3-borders/>

<https://html5book.ru/css3-gradient/>

[Materials]

Additional materials:

<https://html5book.ru/css3-tables/>

<https://html5book.ru/krasivoe-oformlenie-tablic/>

<https://html5book.ru/oformlenie-tablicy-psevdoklassami/>

<http://html5doctor.com/>

<http://www.css3files.com/>

[Materials]

Video materials:

<https://www.youtube.com/watch?v=OicAufYXUKU>

<https://www.youtube.com/watch?v=oKjHixIW22I>

<https://www.youtube.com/watch?v=7ftsTkMg5nw>

<https://www.youtube.com/watch?v=vXx0cCBLX4w>

<https://www.youtube.com/watch?v=tf8S5EJWeVs>

https://www.youtube.com/watch?v=Y_dsckWhclE&index=8&list=PLAKxGhxbBWw_jeD7pBLK8-V_ehxGgy11Z

<https://www.youtube.com/watch?v=eSWK8r6Tpp4>