



1420-7001

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1st Semester, 2025

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Web Programming



IT융합대학 컴퓨터공학부(컴퓨터공학전공)

Summary of the Today's Lesson

Part I

- CSS Application to Text
 - ▣ Color
 - ▣ Alignment
 - ▣ Decoration
 - ▣ Spacing
 - ▣ Shadow
- CSS Application to Text
(Remaining part from Lec. 03)
 - ▣ Decoration
 - ▣ Spacing
 - ▣ Shadow

Part II

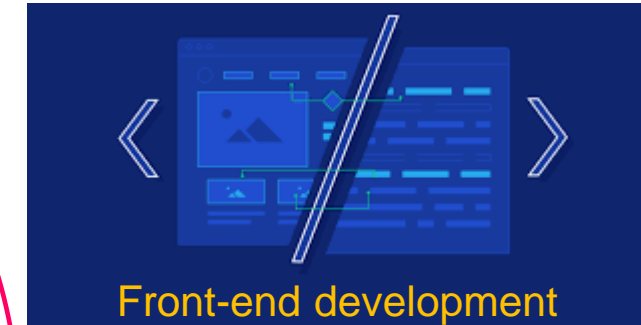
□ HTML Tables

- Simple
- Sizes
- Borders
- Spans
- Headers
- Etc.

CSS introduction on Tables

- Border
- Size
- Alignment
- Styles
- Etc.

Next
class



Part III

Note: Please execute all codes at least once on your computers.

Class Activity #: 04

- What is p. intro in this code?

```
<!DOCTYPE html>
<html>
<head>
<style>
p.intro {
  background-color: yellow;
}
</style>
</head>
<body>

<h1>Demo of the .class selector</h1>

<div class="intro">
  <p>My name is Donald.</p>
  <p>I live in Duckburg.</p>
</div>

<p>My best friend is Mickey.</p>

<p class="intro">My best friend is Mickey.</p>

</body>
</html>
```



Demo of the .class selector

My name is Donald.

I live in Duckburg.

My best friend is Mickey.

My best friend is Mickey.

- Why is CSS not applying to all <p></p> tags?
- What will be the impact of CSS on output when we remove <class="intro"> from div?
- How can we change the code so that it applies to all tags of the same type?

Where do we stand at this time of the Semester?

- 1- Syntax of HTML and CSS coding
- 2- Adding the entire code in one file
- 3- Coding in multiple files for same language
- 4- Coding in multiple files for different languages
- 5- Distinction between tags, elements, and attributes
- 6- CSS inclusion in webpages' external style
- 7- CSS inclusion via tags and classes
- 8- Different tags in HTML and the purpose of each tag
- 9- Development environment setup and web code execution
- 10- Converting code → output and output → Code





Part-I

Using 3rd Party CSS Libraries

CSS Inclusion Examples

Case-I: Without third-party support (Last Class)

Case-II: With third-party support (This Class)

Case-I: CSS Coding Examples-Vertical Alignment

The `vertical-align` property sets the vertical alignment of an element.

```
<html>
<head>
<style>
img.a {
  vertical-align: baseline;
}

img.b {
  vertical-align: text-top;
}

img.c {
  vertical-align: text-bottom;
}

img.d {
  vertical-align: sub;
}

img.e {
  vertical-align: super;
}
</style>
</head>
<body>

<h1>The vertical-align Property</h1>

<h2>vertical-align: baseline (default):</h2>
<p>An  image with a default alignment.</p>

<h2>vertical-align: text-top:</h2>
<p>An  image with a text-top alignment.</p>

<h2>vertical-align: text-bottom:</h2>
<p>An  image with a text-bottom alignment.</p>

<h2>vertical-align: sub:</h2>
<p>An  image with a sub alignment.</p>

<h2>vertical-align: sup:</h2>
<p>An  image with a super alignment.</p>


</body>
</html>
```

Example


Output of the code

The vertical-align Property


vertical-align: baseline (default):

An  image with a default alignment.


vertical-align: text-top:

An  image with a text-top alignment.


vertical-align: text-bottom:

An  image with a text-bottom alignment.

vertical-align: sub:

An  image with a sub alignment.

vertical-align: sup:

An  image with a super alignment.

Case-I: CSS Coding Examples-Vertical Alignment

Coding Example

HTML

CSS

LIVE

```
<h2>This is my first heading.</h2>
<p>This is my first paragraph</p>
<h2 class="bright">This is my second
heading.</h2>
<p>This is my second paragraph</p>
<h2 class="bright">This is my third
heading.</h2>
<p class="bright">This is my third
paragraph</p>
```

Result

Output of the code

This is my first heading.

This is my first paragraph

This is my second heading.

This is my second paragraph

This is my third heading.

This is my third paragraph

HTML

CSS

```
.bright {
  color: orange;
  font-family: Arial;
}
```


Case-II: CSS Coding Examples-Button Designing

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap Example</title>
  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" rel="stylesheet">
  <style>
    /* Custom Styles */
    .custom-button {
      background-color: #ff6347;
      color: white;
      border-radius: 5px;
    }
  </style>
</head>
<body>
  <div class="container mt-5">
    <h1 class="text-center mb-4">Bootstrap Example</h1>
    <!-- Buttons with Bootstrap classes -->
    <div class="d-flex justify-content-center mb-4">
      <button class="btn btn-primary mx-2">Primary Button</button>
      <button class="btn btn-secondary mx-2">Secondary Button</button>
      <button class="btn custom-button mx-2">Custom Button</button>
    </div>
    <!-- Grid System Example -->
    <div class="row">
      <div class="col-md-6">
        <div class="p-3 mb-2 bg-light text-dark text-center">Column 1</div>
      </div>
      <div class="col-md-6">
        <div class="p-3 mb-2 bg-light text-dark text-center">Column 2</div>
      </div>
    </div>
  </div>
</body>
</html>
```

Output of the code

localhost/CSSExample.html

Bootstrap Example

Primary Button Secondary Button Custom Button

Column 1

Column 2

Part-II

HTML Tables

A test table with merged cells

	Average		Red eyes
	height	weight	
Males	1.9	0.003	40%
Females	1.7	0.002	43%

Tag Identification Test- HTML Tables

- Identify the number of `<tr>` tags used in this figure.
- Identify the number of `<th>` tags used in this figure.
- Identify the `alignment` option used in `<td>`.

A test table with merged cells

	Average		Red eyes
	height	weight	
Males	1.9	0.003	40%
Females	1.7	0.002	43%

TABLE TAGS IN HTML

<table>

<caption>

Table Tags in HTML

</caption>

<thead><tr>

<th>

<th>

<th>

</tr></thead>

<tbody><tr>

<td>

<td>

<td>

</tr>

<tr>

<td>

<td>

<td>

</tr>

<tr>

<td>

<td>

<td>

</tr></tbody>

</table>

1. **<table>**: The root element used to define an HTML table.
2. **<tr>**: Stands for "table row," used to create a row within the table.
3. **<th>**: Stands for "table header," defines a header cell in a table row.
4. **<td>**: Stands for "table data," defines a standard cell within a table row.
5. **<caption>**: Specifies a title or description for the table.
6. **<thead>**: Groups the header content in a table.
7. **<tbody>**: Groups the body content in a table.
8. **<tfoot>**: Groups the footer content in a table.

HTML Concepts-Tables

- ⌘ The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells.
- ⌘ The HTML tables are created using the `<table>` tag in which the `<tr>` tag is used to create table rows and `<td>` tag is used to create data cells. The elements under `<td>` are regular and left aligned by default

Person	Age
Chris	38
Dennis	45
Sarah	29
Karen	47

Q: How many rows and columns are in the above table?
What is the dimension of the above table?

HTML Coding Examples-Simple Table

- ⌘ The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells.

```
<!DOCTYPE html>
<html>

  <head>
    <title>HTML Tables</title>
  </head>

  <body>
    <table border = "1">
      <tr>
        <td>Row 1, Column 1</td>
        <td>Row 1, Column 2</td>
      </tr>

      <tr>
        <td>Row 2, Column 1</td>
        <td>Row 2, Column 2</td>
      </tr>
    </table>

  </body>
</html>
```

→ Output of the code

This will produce the following result –

Row 1, Column 1	Row 1, Column 2
Row 2, Column 1	Row 2, Column 2

Here, the **border** is an attribute of `<table>` tag and it is used to put a border across all the cells. If you do not need a border, then you can use `border = "0"`.

HTML Coding Examples- Simple Table with Heading

- ⌘ Table heading can be defined using `<th>` tag. This tag will be put to replace `<td>` tag, which is used to represent actual data cell. Normally you will put your top row as table heading as shown below, otherwise you can use `<th>` element in any row. Headings, which are defined in `<th>` tag are centered and bold by default.

```
<html>

<head>
  <title>HTML Table Header</title>
</head>

<body>
  <table border = "1">
    <tr>
      <th>Name</th>
      <th>Salary</th>
    </tr>
    <tr>
      <td>Ramesh Raman</td>
      <td>5000</td>
    </tr>

    <tr>
      <td>Shabbir Hussein</td>
      <td>7000</td>
    </tr>
  </table>
</body>

</html>
```



Output of the code

This will produce the following result –

Name	Salary
Ramesh Raman	5000
Shabbir Hussein	7000

Part-III

Adding CSS to HTML Tables

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 & HTML Coding Examples-Fancy Tables

⌘ The look of an HTML table can be greatly improved with CSS.

```
<html>
<head>
<style>
#customers {
  font-family: 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: #04AA6D;
  color: white;
}
</style>
</head>
```

```
<h1>A Fancy Table</h1>
<table id="customers">
  <tr>
    <th>Company</th>
    <th>Contact</th>
    <th>Country</th>
  </tr>
  <tr>
    <td>Alfreds Futterkiste</td>
    <td>Maria Anders</td>
    <td>Germany</td>
  </tr>
  <tr>
    <td>Berglunds snabbköp</td>
    <td>Christina Berglund</td>
    <td>Sweden</td>
  </tr>
  <tr>
    <td>Centro comercial Moctezuma</td>
    <td>Francisco Chang</td>
    <td>Mexico</td>
  </tr>
  <tr>
    <td>Ernst Handel</td>
    <td>Roland Mendel</td>
    <td>Austria</td>
  </tr>
  <tr>
    <td>Island Trading</td>
    <td>Helen Bennett</td>
    <td>UK</td>
  </tr>
  <tr>
    <td>Königlich Essen</td>
    <td>Philip Cramer</td>
    <td>Germany</td>
  </tr>
  <tr>
    <td>Laughing Bacchus Winecellars</td>
    <td>Yoshi Tannamuri</td>
    <td>Canada</td>
  </tr>
</table>
```



Output of the code

A Fancy Table

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 & HTML Coding Examples-Table Borders

- ⌘ To specify table borders in CSS, use the `border` property.
- ⌘ The example below specifies a solid border for `<table>`, `<th>`, and `<td>` elements

```
<html>
<head>
<style>
table, th, td {
  border: 1px solid;
}
</style>
</head>
<body>

<h2>Add a border to a table:</h2>

<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
  </tr>
</table>

</body>
</html>
```



Output of the code

Add a border to a table:

Firstname	Lastname
Peter	Griffin
Lois	Griffin

CSS & HTML Coding Examples-Table Full Width (100%)

- ⌘ The table above might seem small in some cases.
- ⌘ If you need a table that should span the entire screen (full-width), add `width: 100%` to the `<table>` element.

```
<html>
<head>
<style>
table, th, td {
  border: 1px solid;
}

table {
  width: 100%;
}
</style>
</head>
<body>

<h2>Full-width Table</h2>

<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
  </tr>
</table>

</body>
</html>
```



Output of the code

Full-width Table

Firstname	Lastname
Peter	Griffin
Lois	Griffin

CSS & HTML Coding Examples-Table Border

```
<style>
table, td, th {
  border: 1px solid;
}

table {
  width: 100%;
  border-collapse: collapse;
}
</style>
</head>
<body>

<h2>Let the table borders collapse</h2>

<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
  </tr>
</table>

</body>
</html>
```



Output of the code

Let the table borders collapse

Firstname	Lastname
Peter	Griffin
Lois	Griffin

CSS & HTML Coding Examples-Table Single/Outside Border

⌘ If you only want a border around the table, only specify the **border** property for <table>.

```
<html>
<head>
<style>
table {
  width: 100%;
  border: 1px solid;
}
</style>
</head>
<body>

<h2>Single Border Around The Table</h2>

<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
  </tr>
</table>

</body>
</html>
```



Output of the code

Single Border Around The Table

Firstname	Lastname
Peter	Griffin
Lois	Griffin

CSS & HTML Coding Examples-Table Size via CSS (100%)

- ⌘ The width and height of a table are defined by the **width** and **height** properties.
- ⌘ The example below sets the width of the table to 100%, and the height of the <th> elements to 70px.

```
<html>
<head>
<style>
table, td, th {
  border: 1px solid black;
}
table {
  border-collapse: collapse;
  width: 100%;
}
th {
  height: 70px;
}
</style>
</head>

<p>Set the width of the table, and the height of the table header row:</p>
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
    <td>$150</td>
  </tr>
  <tr>
    <td>Joe</td>
    <td>Swanson</td>
    <td>$300</td>
  </tr>
  <tr>
    <td>Cleveland</td>
    <td>Brown</td>
    <td>$250</td>
  </tr>
</table>

</body>
</html>
```

Output of the code

The width and height Properties

Set the width of the table, and the height of the table header row:

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

CSS & HTML Coding Examples-

Table Size via CSS (Half Page)

⌘ To create a table that should only span half the page, use `width: 50%`.

Output of the code

A table that only span half the page

Set the width of the table to 50%:

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

```
<html>
<head>
<style>
table, td, th {
  border: 1px solid black;}
table {
  border-collapse: collapse;
  width: 50%;}
</style>
</head>
<body>
<h2>A table that only span half the page</h2>
<p>Set the width of the table to 50%:</p>
<table>
<tr>
  <th>Firstname</th>
  <th>Lastname</th>
  <th>Savings</th>
</tr>
<tr>
  <td>Peter</td>
  <td>Griffin</td>
  <td>$100</td>
</tr>
<tr>
  <td>Lois</td>
  <td>Griffin</td>
  <td>$150</td>
</tr>
<tr>
  <td>Joe</td>
  <td>Swanson</td>
  <td>$300</td>
</tr>
<tr>
  <td>Cleveland</td>
  <td>Brown</td>
  <td>$250</td>
</tr>
</table>
</body>
</html>
```

CSS & HTML Coding Examples-

Table Alignment (Horizontal)

- ⌘ The `text-align` property sets the horizontal alignment (like left, right, or center) of the content in `<th>` or `<td>`.
- ⌘ By default, the content of `<th>` elements are center-aligned and the content of `<td>` elements are left-aligned.
- ⌘ To center-align the content of `<td>` elements as well, use `text-align: center`

Output of the code

The text-align Property

This property sets the horizontal alignment (like left, right, or center) of the content in th or td.

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

```
<html>
<head>
<style>
table, td, th {
  border: 1px solid black;}
table {
  border-collapse: collapse;
  width: 100%;}
td {
  text-align: center;}
</style>
</head>
<body>
<h2>The text-align Property</h2>
<p>This property sets the horizontal alignment (like left, right, or center) of the content in th or td.</p>
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
    <td>$150</td>
  </tr>
  <tr>
    <td>Joe</td>
    <td>Swanson</td>
    <td>$300</td>
  </tr>
  <tr>
    <td>Cleveland</td>
    <td>Brown</td>
    <td>$250</td>
  </tr>
</table>
</body>
```


CSS & HTML Coding Examples-

Table Alignment (Horizontal)

- ⌘ The `text-align` property sets the horizontal alignment (like left, right, or center) of the content in `<th>` or `<td>`.
- ⌘ By default, the content of `<th>` elements are center-aligned and the content of `<td>` elements are left-aligned.
- ⌘ To center-align the content of `<td>` elements as well, use `text-align: center`

The text-align Property

This property sets the horizontal alignment (like left, right, or center) of the content in `th` or `td`.

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

Output of the code

```
<html>
<head>
<style>
table, td, th {
  border: 1px solid black;}
table {
  border-collapse: collapse;
  width: 100%;}
td {
  text-align: center;}
</style>
</head>
<body>
<h2>The text-align Property</h2>
<p>This property sets the horizontal alignment (like left, right, or center) of the content in th or td.</p>
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
    <td>$150</td>
  </tr>
  <tr>
    <td>Joe</td>
    <td>Swanson</td>
    <td>$300</td>
  </tr>
  <tr>
    <td>Cleveland</td>
    <td>Brown</td>
    <td>$250</td>
  </tr>
</table>
</body>
</html>
```

CSS & HTML Coding Examples-

Table Alignment (Vertical)

- ⌘ The `vertical-align` property sets the vertical alignment (like top, bottom, or middle) of the content in `<th>` or `<td>`.
- ⌘ By default, the vertical alignment of the content in a table is middle (for both `<th>` and `<td>` elements).
- ⌘ The following example sets the vertical text alignment to bottom for `<td>` elements

The vertical-align Property

Output of the code

This property sets the vertical alignment (like top, bottom, or middle) of the content in th or td.

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

```
<html>
<head>
<style>
table, td, th {
  border: 1px solid black;}
table {
  border-collapse: collapse;
  width: 100%;}
td {
  height: 50px;
  vertical-align: bottom;}
</style>
</head>
<body>
<h2>The vertical-align Property</h2>
<p>This property sets the vertical alignment (like top, bottom, or middle) of the content in th or td.</p>
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
    <td>$150</td>
  </tr>
  <tr>
    <td>Joe</td>
    <td>Swanson</td>
    <td>$300</td>
  </tr>
  <tr>
    <td>Cleveland</td>
    <td>Brown</td>
    <td>$250</td>
  </tr>
</table>
</body>
</html>
```

CSS & HTML Coding Examples-

Table Styles (Padding)

- ⌘ To control the space between the border and the content in a table, use the **padding** property on `<td>` and `<th>` elements.

Output of the code

The padding Property

This property adds space between the border and the content in a table.

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

```
<html>
<head>
<style>
table, td, th {
  border: 1px solid #ddd;
  text-align: left;}
table {
  border-collapse: collapse;
  width: 100%;}
th, td {
  padding: 15px;
}
</style>
</head>
<body>
<h2>The padding Property</h2>
<p>This property adds space between the border and the content in a table.</p>
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
    <td>$150</td>
  </tr>
  <tr>
    <td>Joe</td>
    <td>Swanson</td>
    <td>$300</td>
  </tr>
  <tr>
    <td>Cleveland</td>
    <td>Brown</td>
    <td>$250</td>
  </tr>
</table>
</body>
</html>
```

CSS & HTML Coding Examples-

Table Styles (Horizontal Dividers)

⌘ Add the border-bottom property to <th> and <td> for horizontal dividers.

Output of the code

Bordered Table Dividers

Add the border-bottom property to th and td for horizontal dividers:

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

```
<html>
<head>
<style>
table {
  border-collapse: collapse;
  width: 100%;
}
th, td {
  padding: 8px;
  text-align: left;
  border-bottom: 1px solid #ddd;
}
</style>
</head>
<body>
<h2>Bordered Table Dividers</h2>
<p>Add the border-bottom property to th and td for horizontal dividers:</p>
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
    <td>$150</td>
  </tr>
  <tr>
    <td>Joe</td>
    <td>Swanson</td>
    <td>$300</td>
  </tr>
  <tr>
    <td>Cleveland</td>
    <td>Brown</td>
    <td>$250</td>
  </tr>
</table>
</body>
</html>
```

CSS & HTML Coding Examples-

Table Styles (Hoverable Table)

Use the `:hover` selector on `<tr>` to highlight table rows on mouse over.

Output of the code

Hoverable Table

Move the mouse over the table rows to see the effect.

First Name	Last Name	Points
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

```
<html>
<head>
<style>
table {
  border-collapse: collapse;
  width: 100%;}
th, td {
  padding: 8px;
  text-align: left;
  border-bottom: 1px solid #ddd;}
tr:hover {background-color: coral;}
</style>
</head>
<body>

<h2>Hoverable Table</h2>
<p>Move the mouse over the table rows to see the effect.</p>
<table>
  <tr>
    <th>First Name</th>
    <th>Last Name</th>
    <th>Points</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
    <td>$150</td>
  </tr>
  <tr>
    <td>Joe</td>
    <td>Swanson</td>
    <td>$300</td>
  </tr>
  <tr>
    <td>Cleveland</td>
    <td>Brown</td>
    <td>$250</td>
  </tr>
</table>
</body>
</html>
```

CSS & HTML Coding Examples-

Table Styles (Stripped Table)

- ⌘ For zebra-striped tables, use the `nth-child()` selector and add a `background-color` to all even (or odd) table rows.

Output of the code



Striped Table

For zebra-striped tables, use the `nth-child()` selector and add a `background-color` to all even (or odd) table rows:

First Name	Last Name	Points
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

```
<html>
<head>
<style>
table {
  border-collapse: collapse;
  width: 100%;
}
th, td {
  text-align: left;
  padding: 8px;
}
tr:nth-child(even) {background-color: #f2f2f2;}
</style>
</head>
<body>
<h2>Striped Table</h2>
<p>For zebra-striped tables, use the nth-child() selector and add a background-color to all even (or odd) table rows:</p>
<table>
  <tr>
    <th>First Name</th>
    <th>Last Name</th>
    <th>Points</th>
  </tr>
  <tr>
    <td>Peter</td>
    <td>Griffin</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>Lois</td>
    <td>Griffin</td>
    <td>$150</td>
  </tr>
  <tr>
    <td>Joe</td>
    <td>Swanson</td>
    <td>$300</td>
  </tr>
  <tr>
    <td>Cleveland</td>
    <td>Brown</td>
    <td>$250</td>
  </tr>
</table>
</body>
```

CSS & HTML Coding Examples-

Table Styles (Table Color)

The example below specifies the background color and text color of <th> elements:

Output of the code

Colored Table Header

Firstname	Lastname	Savings
Peter	Griffin	\$100
Lois	Griffin	\$150
Joe	Swanson	\$300
Cleveland	Brown	\$250

```
<html>
<head>
<style>
table {
  border-collapse: collapse;
  width: 100%;}
th, td {
  text-align: left;
  padding: 8px;}
tr:nth-child(even){background-color: #f2f2f2}
th {
  background-color: #04AA6D;
  color: white;}
</style>
</head>
<body>
<h2>Colored Table Header</h2>
<table>
<tr>
<th>Firstname</th>
<th>Lastname</th>
<th>Savings</th>
</tr>
<tr>
<td>Peter</td>
<td>Griffin</td>
<td>$100</td>
</tr>
<tr>
<td>Lois</td>
<td>Griffin</td>
<td>$150</td>
</tr>
<tr>
<td>Joe</td>
<td>Swanson</td>
<td>$300</td>
</tr>
<tr>
<td>Cleveland</td>
<td>Brown</td>
<td>$250</td>
</tr>
</table>
</body>
</html>
```

CSS & HTML Coding Examples- Table Styles (Table Responsive)

- ⌘ A responsive table will display a horizontal scroll bar if the screen is too small to display the full content.
- ⌘ Change in mouse style.

Responsive Table

A responsive table will display a horizontal scroll bar if the screen is too small to display the full content. Resize the browser window to see the effect:

To create a responsive table, add a container element (like `div`) with `overflow-x:auto` around the table element:

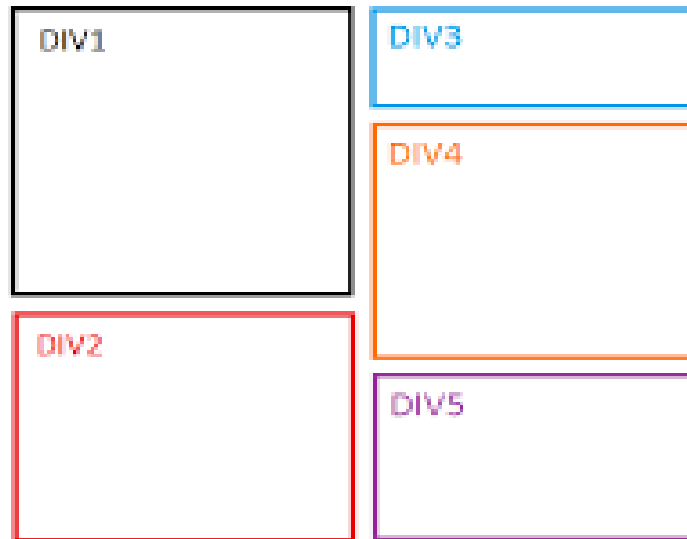
[illegible]

CSS & HTML Coding Examples- Properties

CSS Table Properties

Property	Description
<u>border</u>	Sets all the border properties in one declaration
<u>border-collapse</u>	Specifies whether or not table borders should be collapsed
<u>border-spacing</u>	Specifies the distance between the borders of adjacent cells
<u>caption-side</u>	Specifies the placement of a table caption
<u>empty-cells</u>	Specifies whether or not to display borders and background on empty cells in a table
<u>table-layout</u>	Sets the layout algorithm to be used for a table

Working with HTML Div



Div Example- Gachon University Website

Div-1

공지사항



일반

뉴스

학사

장학

학생

취업

채용

- [2024 지방소멸시대, 노인과 함께 살아가...] 2024.03.29
- 제25기 학생홍보대사 최종합격자 발표 2024.03.29
- [Remind] (특강) MUSINSA & LUSH K... 2024.03.28
- 2024년 1학기 Global Ambassador 1기 ... 2024.03.28
- 도서관 런치토크, 도서관 100% 활용팁(재... 2024.03.27

Div-2

학사일정

< 2024.03 >

- [2024.03.04~2024.03.04] 1학기 개강
- [2024.03.04~2024.03.08] 수강신청 정정기간
- [2024.03.04~2024.04.19] 학기 중 휴학기간**
- [2024.03.25~2024.03.29] 수강과목 포기기간
- [2024.03.27~2024.03.27] 수업일수(1/4)

HTML Concepts-**div**

⌘ The `<div>` element is used as a [container](#) for other HTML elements.

```
<html>
<style>
div {
  background-color: #FFF4A3;
}
</style>
<body>
```

```
<h1>HTML DIV Example</h1>
```

```

Lorem Ipsum <div>I am a div</div> dolor sit amet.
```

```
<p>The yellow background is added to demonstrate the footprint of the DIV element.</p>
```

```
</body>
```

```
</html>
```

Output of the code

HTML DIV Example

Lorem Ipsum
I am a div
dolor sit amet.

The yellow background is added to demonstrate the footprint of the DIV element.

The `<div>` element has no required attributes, but **style**, **class** and **id** are common.

HTML Coding Examples-**div tag**

⌘ The `<div>` element is often used to group sections of a web page together

```
<html>
<style>
div {
  background-color: #FFF4A3;
}
</style>
<body>

<h1>HTML DIV Example</h1>

<div>
  <h2>London</h2>
  <p>London is the capital city of England.</p>
  <p>London has over 13 million inhabitants.</p>
</div>

<p>The yellow background is added to demonstrate the footprint of the DIV element.</p>

</body>
</html>
```



HTML DIV Example

London

London is the capital city of England.

London has over 13 million inhabitants.

The yellow background is added to demonstrate the footprint of the DIV element.

Output of the code

A `<div>` element with HTML elements.

HTML Coding Examples-**div tag with CSS**

- ⌘ If you have a `<div>` element that is not 100% wide, and you want to center-align it, set the CSS **margin** property to **auto**.

```
<html>
<style>
div {
  width: 300px;
  margin: auto;
  background-color: #FFF4A3;
}
</style>
<body>

<h1>Center align a DIV element</h1>

<div>
  <h2>London</h2>
  <p>London is the capital city of England.</p>
  <p>London has over 13 million inhabitants.</p>
</div>

</body>
</html>
```



Output of the code

Center align a DIV element

London

London is the capital city of England.

London has over 13 million inhabitants.

HTML Coding Examples-Multiple div tag

⌘ You can have many <div> containers on the same

Multiple DIV Elements

Output of the code

```
<html>
<body>
<h1>Multiple DIV Elements</h1>
<div style="background-color:#FFF4A3;">
  <h2>London</h2>
  <p>London is the capital city of England.</p>
  <p>London has over 13 million inhabitants.</p>
</div>
<div style="background-color:#FFC0C7;">
  <h2>Oslo</h2>
  <p>Oslo is the capital city of Norway.</p>
  <p>Oslo has over 600.000 inhabitants.</p>
</div>
<div style="background-color:#D9EEE1;">
  <h2>Rome</h2>
  <p>Rome is the capital city of Italy.</p>
  <p>Rome has almost 3 million inhabitants.</p>
</div>
<p>CSS styles are added to make it easier to separate the divs, and to make them more pretty:</p>
</body>
</html>
```



1 London

London is the capital city of England.

London has over 13 million inhabitants.

2 Oslo

Oslo is the capital city of Norway.

Oslo has over 600.000 inhabitants.

3 Rome

Rome is the capital city of Italy.

Rome has almost 3 million inhabitants.

CSS styles are added to make it easier to separate the divs, and to make them more pretty:)

HTML Coding Examples-

Multiple div tag (Side by Side)

- ⌘ When building web pages, you often want to have two or more <div> elements side by side.

Output of the code

London 1	Oslo 2	Rome 3
London is the capital city of England.	Oslo is the capital city of Norway.	Rome is the capital city of Italy.
London has over 13 million inhabitants.	Oslo has over 600.000 inhabitants.	Rome has almost 3 million inhabitants.

```
<html>
<style>
div.mycontainer {
  width:100%;
  overflow:auto;}
div.mycontainer div {
  width:33%;
  float:left;}
</style>
<body>
<div class="mycontainer">
  <div style="background-color:#FFF4A3;">
    <h2>London</h2>
    <p>London is the capital city of England.</p>
    <p>London has over 13 million inhabitants.</p>
  </div>
  <div style="background-color:#FFC0C7;">
    <h2>Oslo</h2>
    <p>Oslo is the capital city of Norway.</p>
    <p>Oslo has over 600.000 inhabitants.</p>
  </div>
  <div style="background-color:#D9EEE1;">
    <h2>Rome</h2>
    <p>Rome is the capital city of Italy.</p>
    <p>Rome has almost 3 million inhabitants.</p>
  </div>
</div>
</body>
</html>
```

HTML Coding Examples-Multiple div tag (Side by Side)

⌘ When building web pages, you often want to have two or more <div> elements side by side.

```
<!DOCTYPE html>
<html>
<style>
div {
width:30%;
display:inline-block;
}
</style>
<body>

<div style="background-color:#FFF4A3;">
<h2>London</h2>
<p>London is the capital city of England.</p>
<p>London has over 13 million inhabitants.</p>
</div>

<div style="background-color:#FFC0C7;">
<h2>Oslo</h2>
<p>Oslo is the capital city of Norway.</p>
<p>Oslo has over 600.000 inhabitants.</p>
</div>

<div style="background-color:#D9EEE1;">
<h2>Rome</h2>
<p>Rome is the capital city of Italy.</p>
<p>Rome has almost 3 million inhabitants.</p>
</div>

</body>
</html>
```



Output of the code

London

London is the capital city of England.

London has over 13 million inhabitants.

Oslo

Oslo is the capital city of Norway.

Oslo has over 600.000 inhabitants.

Rome

Rome is the capital city of Italy.

Rome has almost 3 million inhabitants.

Inline-block

If you change the <div> element's **display** property from **block** to **inline-block**, the <div> elements will no longer add a line break before and after, and will be displayed side by side instead of on top of each other.

HTML Coding Examples-

Multiple div tag (Flex Layout)

- ⌘ The CSS Flexbox Layout Module was introduced to make it easier to design flexible responsive layout structure without using float or positioning.
- ⌘ To make the CSS flex method work, surround the `<div>` elements with another `<div>` element and give it the status as a flex container.

Flexbox Example

Align three DIV elements side by side.

London 1	Oslo 2	Rome 3
London is the capital city of England.	Oslo is the capital city of Norway.	Rome is the capital city of Italy.
London has over 13 million inhabitants.	Oslo has over 600.000 inhabitants.	Rome has almost 3 million.

Output of the code

```
<html>
<head>
<style>
.mycontainer {
  display: flex;
}
.mycontainer > div {
  width:33%;
}
</style>
</head>
<body>
<h1>Flexbox Example</h1>
<p>Align three DIV elements side by side.</p>
<div class="mycontainer">
  <div style="background-color:#FFF4A3;">
    <h2>London</h2>
    <p>London is the capital city of England.</p>
    <p>London has over 13 million inhabitants.</p>
  </div>
  <div style="background-color:#FFC0C7;">
    <h2>Oslo</h2>
    <p>Oslo is the capital city of Norway.</p>
    <p>Oslo has over 600.000 inhabitants.</p>
  </div>
  <div style="background-color:#D9EEE1;">
    <h2>Rome</h2>
    <p>Rome is the capital city of Italy.</p>
    <p>Rome has almost 3 million.</p>
  </div>
</div>
</body>
</html>
```

HTML Coding Examples-

Multiple div tag (Grid Layout)

- ⌘ The CSS Grid Layout Module offers a grid-based layout system, with rows and columns, making it easier to design web pages without having to use floats and positioning.
- ⌘ Sounds almost the same as flex, but has the ability to define more than one row and position each row individually.
- ⌘ The CSS grid method requires that you surround the `<div>` elements with another `<div>` element and give the status as a grid container, and you must specify the width of each column.

Grid Example

Align three DIV elements side by side.

London 1	Oslo 2	Rome 3
London is the capital city of England.	Oslo is the capital city of Norway.	Rome is the capital city of Italy.
London has over 13 million inhabitants.	Oslo has over 600.000 inhabitants.	Rome has almost 3 million inhabitants.

Output of the code



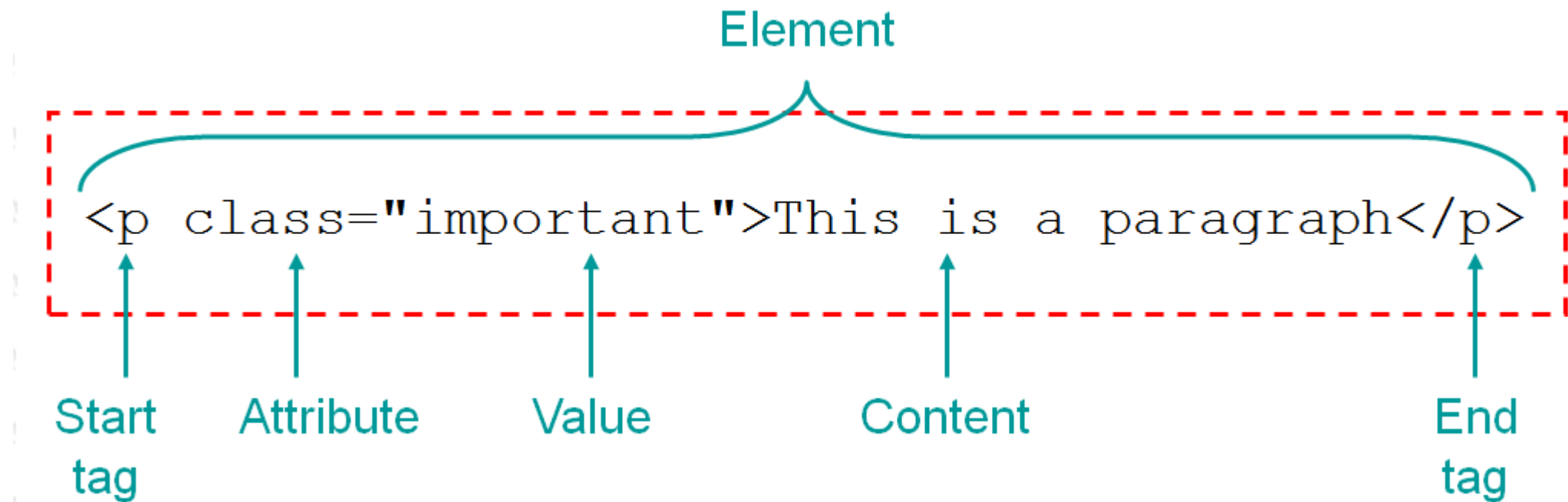
```
<html>
<head>
<style>
.grid-container {
  display: grid;
  grid-template-columns: 33% 33% 33%;
}
</style>
</head>
<body>
<h1>Grid Example</h1>
<p>Align three DIV elements side by side.</p>
<div class="grid-container">
<div style="background-color:#FFF4A3;">
  <h2>London</h2>
  <p>London is the capital city of England.</p>
  <p>London has over 13 million inhabitants.</p>
</div>
<div style="background-color:#FFC0C7;">
  <h2>Oslo</h2>
  <p>Oslo is the capital city of Norway.</p>
  <p>Oslo has over 600.000 inhabitants.</p>
</div>
<div style="background-color:#D9EEE1;">
  <h2>Rome</h2>
  <p>Rome is the capital city of Italy.</p>
  <p>Rome has almost 3 million inhabitants.</p>
</div>
</div>
</body>
</html>
```

HTML Coding Examples-**div summary**

Tag	Description
<u><div></u>	Defines a section in a document (block-level)

Self Test

What are the **Elements**, **Tags**, and **Attributes** in HTML?



Summary of the Today's Lesson

Part III

CSS introduction on Tables

- ☐ Border
- ☐ Size
- ☐ Alignment
- ☐ Styles
- ☐ Etc.

Part IV

Working with divs

- ☐ Concepts
- ☐ Examples of simple div
- ☐ Placement of multiple divs
- ☐ Styles addition to divs
- ☐ Etc.



Part I

Custom and third-party CSS

- ☐ Case I (WITHOUT TP)
- ☐ Case II (With TP)

Part II

Review of Table coding

- ☐ Tags test
- ☐ Arrangement of Table codes

Note: Please execute all codes at least once on your computers.