

Web Programming - I

Chapter 3

More on HTML

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



HTML Links



HTML Links

- HTML uses a hyperlink to link to another document on the web.
- HTML uses the <a> (anchor) tag to create a link to another document.
 - An anchor can point to any resource on the web:
 - An HTML page
 - An Image
 - A sound File
 - A Movie etc.
- Syntax

```
<a href = "url"> Text to be displayed </a>
```

- The <a> tag is used to create an anchor to *link* from
- The href attribute is used to address the document to *link*
Ex: Anchor defines a link to google ->

```
<a href="https://www.google.com/">Visit Google! </a>
```

Introduction to XHTML



- The Target attribute is used to define where the linked document will be opened.

The below link will open the document in a new browser window or tab :

```
<a href="https://www.google.com/" target="_blank"> Visit Google! </a>
```

Target attribute value	Definition
_blank	Opens the linked document in a new window or tab
_self	Opens the linked document in the same window/tab as it was clicked (this is default)
_parent	Opens the linked document in the parent frame
_top	Opens the linked document in the full body of the window
framename	Opens the linked document in a named frame



The anchor Tag and the Name attribute

- Used to create a named anchor
 - When using named anchors we can create links that can jump directly into a specific section on a page, instead of letting the user scroll around to find what he/she is looking for.

- Syntax to 'Named Anchor'

```
<a name="label"> Text to be display! </a>
```

- Syntax to link an Name Anchor

```
<a href="#label"> Text to be display! </a>
```



<h3>Link to google</h3>

<p>

Visit
Google!

</p>

<h3>Image as Link to UoK official web site</h3>

<p>

</p>

<h3>Link to another page</h3>

<p>

Visit My HTML
Page!

</p>

<h3>Link to Specific Section in another page</h3>

<p>

Visit
CTEC 31052!

</p>

Link to google

[Visit Google!](https://www.google.com/)

Image as Link to UoK official web site



Link to another page

[Visit My HTML Page!](#)

Link to Specific Section in another page

[Visit CTEC 31052!](#)



This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

CTEC 31052

Name of the
anchor is
CTEC 31052

```
<a name="CTEC31052">  
<h2>CTEC 31052</h2>  
</a>
```

```
<p> This is a sample paragraph need to be jump!</p>  
<p> This is a sample paragraph need to be jump!</p>
```

This is a sample paragraph need to be jump!

This is a sample paragraph need to be jump!



Link to Specific Section in same page

[Visit CTEC 31052!](#)

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

This is a sample paragraph!

Link to the section in the same page which have "CTEC31052" as the Name of the anchor

```
<h3>Link to Specific Section in same page</h3>
<p>
<a href="#CTEC31052">Visit CTEC 31052!</a>
</p>
```

Check the URL: file:///D:/HTML/L5/0_linktemp.html#CTEC31052

fragment



Mailto link

- mailto link is used to link to a mail message (it will only work if you have installed mail).

<p>

This is an email link:

Send Mail

</p>

<p> This is another mailto link:

<a

href="mailto:example123@gmail.com?cc=someoneelse@example.com&bcc=andsomeoneelse@example.com&subject=Course%20Advices&body=Study%20hard%20to%20get%20good%20results!">

Send mail!

</p>

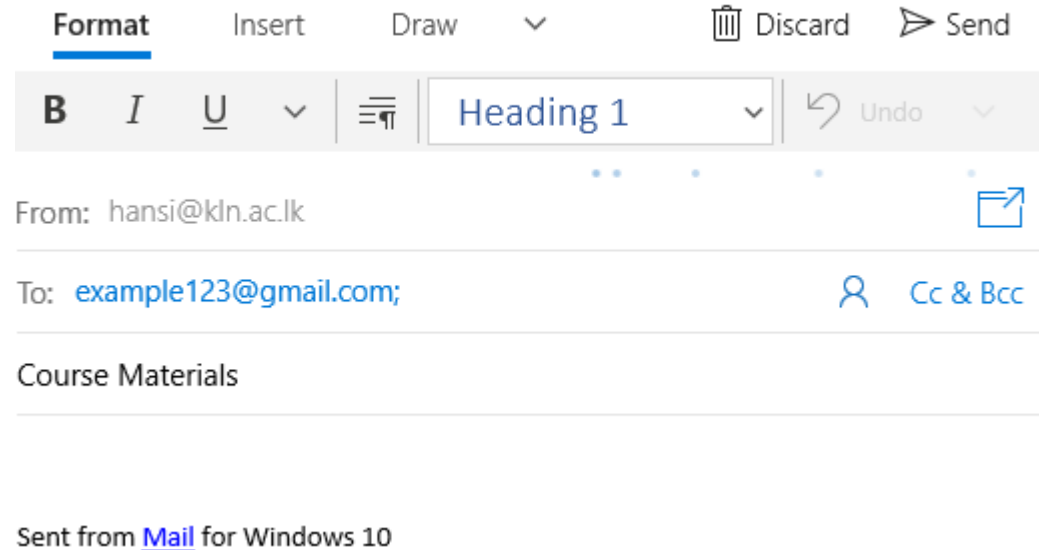
<p>

Note: Spaces between words should be replaced by %20 to ensure that the browser will display the text properly.

</p>



```
<a  
href="mailto:example123@gmail.com?  
Subject=Course%20Materials" >  
    Send Mail  
</a>
```



This is an email link: [Send Mail](#)

This is another mailto link: [Send mail!](#)

Note: Spaces between words should be replaced by %20 to ensure that the browser will display the text properly.



Advance 'mailto' Link

```
<a  
href="mailto:example123@gmail.com?cc=someoneelse@example.com&bcc=andsomeoneelse@example.com&subject=Course%20Advices&body=Study%20hard%20to%20get%20good%20results!">  
    Send mail!  
</a>
```

From: hansikln.ac.lk



To: example123@gmail.com;



Cc: someoneelse@example.com;



Bcc: andsomeoneelse@example.com;



Course Advices

Study hard to get good results!

Sent from [Mail](#) for Windows 10



HTML iframe



Inline Frame <iframe>

- A Frame inside a HTML page known as Inline Frame 'iframe'.

```
<iframe src="URL"></iframe>
```

- Example:

```
<h3>Display a HTML page</h3>  
<iframe src="0_linktemp.html"></iframe>
```

Display a HTML page

Link to Specific Section in same page

[Visit CTEC 31052!](#)

This is a sample paragraph!

This is a sample paragraph!



```
<h3>Display a image</h3>
```

```
<iframe name="commonFrame" style="width:400;height:400;"  
src="Earth.gif"></iframe>
```

```
<a href="Kelaniya.png" target="commonFrame">Load Kelaniya Logo !</a>
```

```
<a href="Earth.gif" target="commonFrame">Load Earth back !</a>
```

Display a image



[Load Kelaniya Logo !](#) ----- [Load Earth back !](#)



HTML Image



HTML Images

- Images are defined with the standalone tag.
- Src (Source) attribute defines the URL of the image
- Syntax of defining an image;

```

```

- You can use only the name of the image if html doc and image are in same directory path.

<p>An image: Kelaniya.png


```
  
</p>
```

Normal Image

Moving Image

<p>An Moving image: Earth.gif


```
  
    <!-- need to be in same path if you give  
image name only-->  
</p>
```



HTML Paths

- A file path defines the location of a file in a web site's folder structure.
- File paths are used to link different files. They are:
 - Web pages
 - Images
 - Style sheets
 - JavaScripts

Path	Description
<code></code>	Kelaniya.jpg is located in the same folder as the current page.
<code></code>	firework.gif is located in the images folder in the current folder.
<code></code>	picture.jpg is located in the images folder at the root of the current web
<code></code>	picture.jpg is located in the folder one level up from the current folder



Insert an image in different location

```
<p>An image from another folder: firework.gif  
<br>  
      
</p>
```

An image from another folder: firework.gif



An image from W3School: ie.gif



```
<p>An image from W3School: ie.gif <br>  
  
</p>
```



Adjust images to different sizes

- Use “height” & “width” attributes to adjust the image width and height
- Can be used percentages and pixel values to set the image size. (10% - > screen width/height * 0.1)

```

```

```

```

```

```

Automatically adjust the height by keeping same proportion of the image. (avoid vertical or horizontal Stretch)



The “alt” Attribute

- Tells the reader what he or she is missing on a page if the browser can't load images
- Then browser will display the alternate text instead of the image

```

```



Aligning Images

Defining the text alignment within the text. Use the *vertical-align* property inside style tag.

vertical-align: baseline | *length* | sub | super | top | text-top | middle | bottom | text-bottom | initial | inherit;

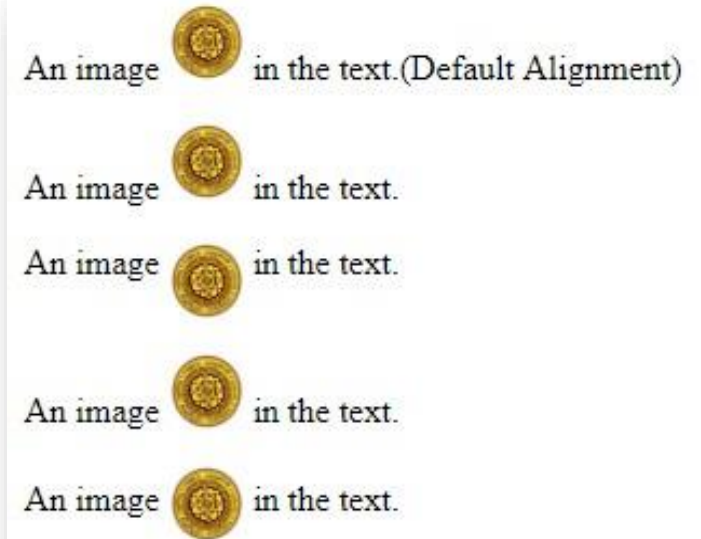
<p> An image in the text.(Default Alignment)</p>

<p> An image in the text.</p>

<p> An image in the text.</p>

<p> An image in the text.</p>

<p> An image in the text.</p>



Floating Images

float: left | right | none | inherit;

<p>

A paragraph with an image. The align attribute of the image is set to "left".The image will float to the left of this text. A paragraph


</p>

<p>

A paragraph with an image. The align attribute of the image is set to "right".The image will float to the right of this text. A paragraph with an image.....

</p>

Floating image

 A paragraph with an image. The align attribute of the image is set to "left".The image will float to the left of this text. A paragraph with an image. The align attribute of the image is set to "left".The image will float to the left of this text. A paragraph with an image. The align attribute of the image is set to "left".The image will float to the left of this text.

A paragraph with an image. The align attribute of the image is set to "right".The image will float to the right of this text. A paragraph with an image. The align attribute of the image is set to "right".The image will float to the right of this text. A paragraph with an image. The align attribute of the image is set to "right".The image will float to the right of this text.



Make a hyperlink of an image

- Use image as a hyperlink

```
<a href="http://www.kln.ac.lk">  
<imgsrc="KelaniLogo.png" alt="UokLogo">  
</a>
```



HTML Table



HTML Table

- Use the HTML **<table>** element to define a table
- Use the HTML **<tr>** element to define a table row
- Use the HTML **<td>** element to define a table data
- Use the HTML **<th>** element to define a table heading
- Use the HTML **<caption>** element to define a table caption
- Use the CSS **border** property to define a border
- Use the CSS **border-collapse** property to collapse cell borders



HTML Table (contd)..

- Use the CSS **padding** property to add padding to cells
- Use the CSS **text-align** property to align cell text
- Use the CSS **border-spacing** property to set the spacing between cells
- Use the **colspan** attribute to make a cell span many columns
- Use the **rowspan** attribute to make a cell span many rows
- Use the **id** attribute to uniquely define one table



Table with one cell

A cell

<h3>Table with one cell</h3>

```
<table>
  <tr>
    <td> A cell</td>
  </tr>
</table>
```

Table with 3 column and 1 rows

(1,1)	(1,2)	(1,3)
-------	-------	-------

<h3>Table with 3 column and 1 rows</h3>

```
<table>
  <tr>
    <td> (1,1)</td>
    <td> (1,2)</td>
    <td> (1,3)</td>
  </tr>
</table>
```

Table with 3 row and 1 columns

(1,1)
(2,1)
(3,1)

<h3>Table with 3 row and 1 columns</h3>

```
<table>
  <tr>
    <td> (1,1)</td>
  </tr>
  <tr>
    <td> (2,1)</td>
  </tr>
  <tr>
    <td> (3,1)</td>
  </tr>
</table>
```

Table with 3 row and 2 columns

(1,1)	(1,2)
(2,1)	(2,2)
(3,1)	(3,2)

<h3>Table with 3 row and 2 columns</h3>

```
<table>
  <tr>
    <td> (1,1)</td>
    <td> (1,2)</td>
  </tr>
  <tr>
    <td> (2,1)</td>
    <td> (2,2)</td>
  </tr>
  <tr>
    <td> (3,1)</td>
    <td> (3,2)</td>
  </tr>
</table>
```



Table Borders

Note: The border attribute is not supported in HTML5. Use CSS instead as in previous slide.

Table with no borders...

(1,1) (1,2)
(2,1) (2,2)
(3,1) (3,2)

Table with normal borders...

(1,1)	(1,2)
(2,1)	(2,2)
(3,1)	(3,2)

Table with thick borders...

(1,1)	(1,2)
(2,1)	(2,2)
(3,1)	(3,2)

```
<h3>Table with normal borders...</h3>
```

```
<table border="10">
```

```
<tr>
```

```
<td> (1,1)</td>
```

```
<td> (1,2)</td>
```

```
</tr>
```

```
<tr>
```

```
<td> (2,1)</td>
```

```
<td> (2,2)</td>
```

```
</tr>
```

```
<tr>
```

```
<td> (3,1)</td>
```

```
<td> (3,2)</td>
```

```
</tr>
```

```
</table>
```



Headings in a Table

<h3>Adding Table Headings</h3>

```
<table border="1">
```

```
<tr>
```

```
<th>Heading 1</th>
```

```
<th>Heading 2</th>
```

```
</tr>
```

```
<tr>
```

```
<td>Data Element 1</td>
```

```
<td>Data Element 2</td>
```

```
</tr>
```

```
</table>
```

Adding Table Headings

Heading 1	Heading 2
Data Element 1	Data Element 2



Empty cells in Table

<h3>Emprty Cell in Table</h3>

```
<table border="1">
```

```
<tr>
```

```
<th>Heading 1</th>
```

```
<th>Heading 2</th>
```

```
</tr>
```

```
<tr>
```

```
<td>&nbsp;</td> <!--EmptyCell-->
```

```
<td>Data Element 2</td>
```

```
</tr>
```

```
</table>
```

Emprty Cell in Table

Heading 1	Heading 2
	Data Element 2



Table with a caption

```
<h3>Table with a caption</h3>
```

```
<table border="1">
```

```
<caption>CAPTION OF THE TABLE</caption>
```

```
<tr>
```

```
<th>Heading 1</th>
```

```
<th>Heading 2</th>
```

```
</tr>
```

```
<tr>
```

```
<td>Data Element 1</td>
```

```
<td>Data Element 2</td>
```

```
</tr>
```

```
</table>
```

Table with a caption

CAPTION OF THE TABLE

Heading 1	Heading 2
Data Element 1	Data Element 2



Add 'border-spacing' & 'padding'

```
<h3>Table with cellpadding and cellspacing</h3>
<table border="1" style="border-
spacing:12px">
  <tr>
    <th style="padding:25px">Heading 1</th>
    <th>Heading 2</th>
  </tr>
  <tr>
    <td>Data Element 1</td>
    <td>Data Element 2</td>
  </tr>
</table>
```

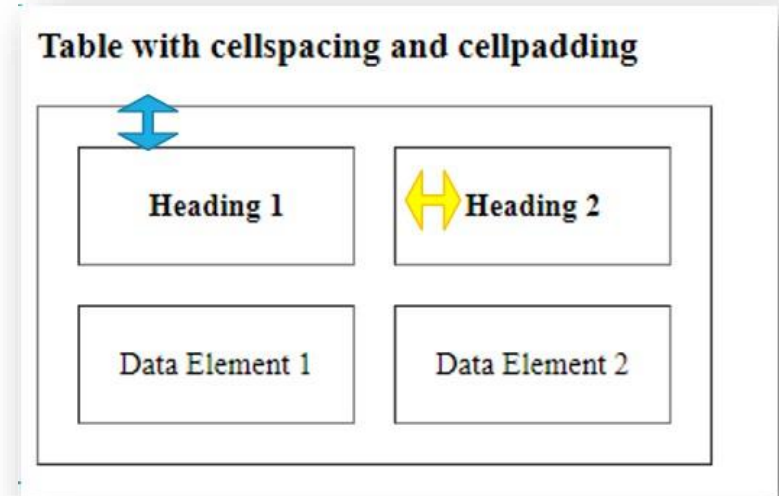


Table with cellpadding and cellspacing

Heading 1	Heading 2
Data Element 1	Data Element 2



Cells span more than one row/column

<h3>Table cells that span more than one row/column

</h3>

```
<table border="1">
```

```
<tr>
```

```
<td colspan="2">Data Element 1</td>
```

```
</tr>
```

```
<tr>
```

```
<td rowspan="2">Data 2</td>
```

```
<td>Data 3</td>
```

```
</tr>
```

```
<tr>
```

```
<td>Data 5</td>
```

```
</tr>
```

```
</table>
```

Table cells that span more than one row/column

Data Element 1	
Data 2	Data 3
	Data 5



Tags inside the table

<h3>Tags inside the table</h3>

```
<table border="1">
```

```
<tr>
```

```
<th>Heading 1</th>
```

```
<th>Heading 2</th>
```

```
</tr>
```

```
<tr>
```

```
<td>
```

```
<p>This is a paragraph inside the cell</p>
```

```
</td>
```

```
<td>
```

```

```

```
</td>
```

```
</tr>
```

```
<tr>
```

```
<td>
```

```
<p>Right cell contains another table</p>
```

```
</td>
```

```
<td>
```

```
<table border="1">
```

```
<tr>
```

```
<th>Heading 1</th>
```

```
<th>Heading 2</th>
```

```
</tr>
```

```
<tr>
```

```
<td>Data Element 1</td>
```

```
<td>Data Element 2</td>
```

```
</tr>
```

```
</table>
```


```
</td>
```

```
</tr>
```

```
</table>
```



Tags inside the table

Heading 1	Heading 2				
<p>This is a paragraph inside the cell</p>					
Right cell contains another table	<table><tr><th>Heading 1</th><th>Heading 2</th></tr><tr><td>Data Element 1</td><td>Data Element 2</td></tr></table>	Heading 1	Heading 2	Data Element 1	Data Element 2
Heading 1	Heading 2				
Data Element 1	Data Element 2				



Content Alignment

<h3>Content Alignment</h3>

<table border="1">

<tr>

<th style="text-align:left">Money spent on...</th>

<th style="text-align:left">January (Jan)</th>

<th style="text-align:left">February</th>

</tr>

<tr>

<td style="text-align:center">Clothes</td>

<td style="text-align:right">Rs.20,000/=</td>

<td style="text-align:right">Rs.10,000/=</td>

</tr>

</table>

Content Alignment

Money spent on...	January (Jan)	February
Clothes	Rs.20,000/=	Rs.10,000/=



Set Background Colors

```
<h3>Set Background color for cells</h3>
<table border="1">
  <tr>
    <th style="background-color:yellow" >Money spent
on...</th>
    <th style="background-color:red">January (Jan)</th>
    <th style="background-color:green">February</th>
  </tr>
  <tr>
    <td>Clothes</td>
    <td>Rs.20,000/=</td>
    <td>Rs.10,000/=</td> </tr>
</table>
```

```
<table border="1" style="background-color:red">
```

Set Background color for entire table

Money spent on...	January (Jan)	February
Clothes	Rs.20,000/=	Rs.10,000/=

Set Background color for cells

Money spent on...	January (Jan)	February
Clothes	Rs.20,000/=	Rs.10,000/=



<colgroup>

- The <colgroup> tag specifies a group of one or more columns in a table for formatting.
- The <colgroup> tag is useful for applying styles to entire columns, instead of repeating the styles for each cell, for each row.

```
<table border="1">  
  <colgroup>  
    <col span="2" bgcolor="green">  
    <col bgcolor="magenta">  
  </colgroup>  
  <tr>  
    <th>Money spent on...</th>  
    <th>January (Jan)</th>  
    <th>February</th>  
  </tr>  
  ...  
</table>
```

Define groups of table columns <colgroup >

Money spent on...	January (Jan)	February
Clothes	Rs.20,000/=	Rs.10,000/=
Foods	Rs.8,000/=	Rs.19,000/=



tfoot, thead, tbody

- The <tfoot> tag is used to group footer content in an HTML table.
- The <tfoot> element is used in conjunction with the <thead> and <tbody> elements to specify each part of a table (footer, header, body).



HTML Table Tags

Tag	Description
<table>	Defines a table
<th>	Defines a header cell in a table
<tr>	Defines a row in a table
<td>	Defines a cell in a table
<caption>	Defines a table caption
<colgroup>	Specifies a group of one or more columns in a table for formatting
<col>	Specifies column properties for each column within a <colgroup> element
<thead>	Groups the header content in a table
<tbody>	Groups the body content in a table
<tfoot>	Groups the footer content in a table



HTML Lists



HTML Lists

- Use `` tag to add an ordered List
- Use `` tag to add an unordered List
- Use `<dl>` tag to add a definition List
- Use `<dt>` tag to define data element in a Definition List
- Use `<dd>` tag to define data definition in Definition List



An Unordered List

```
<h3>An Unordered List</h3>
```

```
<ul>
```

```
  <li>Coffee</li>
```

```
  <li>Tea</li>
```

```
  <li>Milk</li>
```

```
</ul>
```

An Unordered List

- Coffee
- Tea
- Milk



An Ordered List

```
<h3>An Ordered List</h3>
```

```
<ol>
```

```
  <li>Coffee</li>
```

```
  <li>Tea</li>
```

```
  <li>Milk</li>
```

```
</ol>
```

An Ordered List

1. Coffee
2. Tea
3. Milk



A Definition List

<h3>A Definition List</h3>

```
<dl>
  <dt>Coffee</dt>
    <dd>Black hot drink</dd>
  <dt>Tea</dt>
    <dd>Black hot drink</dd>
  <dt>Milk</dt>
    <dd>White cold drink</dd>
</dl>
```

A Definition List

Coffee	Black hot drink
Tea	Black hot drink
Milk	White cold drink



Different types of ordered lists

`<h4>Numbered List</h4>`

```
<ol style="list-style-type:1">
  <li>Coffee</li>
  <li>Milk</li>
</ol>
```

`<h4>Uppercase letters List</h4>`

```
<ol style="list-style-type:A">
  <li>Coffee</li>
  <li>Milk</li>
</ol>
```

`<h4>Lowercase letters List</h4>`

```
<ol style="list-style-type:a">
  <li>Coffee</li>
  <li>Milk</li>
</ol>
```

Numbered List

1. Coffee
2. Milk

Uppercase letters List

- A. Coffee
- B. Milk

Lowercase letters List

- a. Coffee
- b. Milk

Roman numbers List

- I. Coffee
- II. Milk

Lowercase Roman numbers List

- i. Coffee
- ii. Milk

`<h4>Roman numbers List</h4>`

```
<ol style="list-style-type:I">
  <li>Coffee</li>
  <li>Milk</li>
</ol>
```

`<h4>Lowercase Roman numbers List</h4>`

```
<ol style="list-style-type:i">
  <li>Coffee</li>
  <li>Milk</li>
</ol>
```



Different types of unordered lists

`<h4>Disc bullets List</h4>`

```
<ul style="list-style-type:disc">
  <li>Coffee</li>
  <li>Milk</li>
</ul>
```

`<h4>Circle bullets List</h4>`

```
<ul style="list-style-type:circle">
  <li>Coffee</li>
  <li>Milk</li>
</ul>
```

`<h4>Square bullets List</h4>`

```
<ul style="list-style-type:square">
  <li>Coffee</li>
  <li>Milk</li>
</ul>
```

Disc bullets List

- Coffee
- Milk

Circle bullets List

- Coffee
- Milk

Square bullets List

- Coffee
- Milk

List with no bullets or numbers

Coffee
Milk

Image List

- ✓ Coffee
- ✓ Milk

`<h4>List with no bullets or numbers</h4>`

```
<ul style="list-style-type:none">
  <li>Coffee</li>
  <li>Milk</li>
</ul>
```

`<h4>Image List</h4>`

```
<ul style="list-style-image: url('chec.png')">
  <li>Coffee</li>
  <li>Milk</li>
</ul>
```



Nested Lists

`<h3>Nested Lists</h3>`

``

`Coffee`

`Tea`

``

`Black Tea`

`Green Tea`

``

`Milk`

``

Nested Lists

- Coffee
- Tea
 - 1. Black Tea
 - 2. Green Tea
- Milk



Intended learning outcomes

HTML basics

1. Elements
2. Attributes

HTML Syntax

1. Headings
2. Paragraphs
3. Styles
4. Formatting
5. Links
6. Images
7. Tables
8. List

