

Web Engineering LAB



Lab # 02

HTML: Text, Lists, Links

Instructor: Hurmat Hidayat

Email: hurmathidayat@nu.edu.pk

Course Code: SL3003

Semester Spring 2022

**Department of Computer Science,
National University of Computer and Emerging Sciences
FAST Peshawar Campus**

Content

TEXT	3
HEADINGS	3
PARAGRAPHS	3
BOLD AND ITALIC	4
SUPERSCRIPIT AND SUBSCRIPT	4
LINE BREAKS & HORIZONTAL RULES	4
SEMANTIC MARKUPS	5
EXAMPLE:	6
LISTS	6
ORDERED LISTS	6
UNORDERED LISTS	6
DEFINITION LISTS	7
LINKS	7
LINKING TO OTHER PAGES ON THE SAME SITE	8
DIRECTORY STRUCTURE	8
EMAIL LINKS	9
OPENING LINKS IN A NEW WINDOW	9
LAB TASKS:	10
REFERENCES	ERROR! BOOKMARK NOT DEFINED.

Text

When creating a web page, you add tags (known as markup) to the contents of the page. These tags provide extra meaning and allow browsers to show users the appropriate structure for the page.

Headings

HTML has six "levels" of headings:

- `<h1>`
- `<h2>`
- `<h3>`
- `<h4>`
- `<h5>`
- `<h6>`

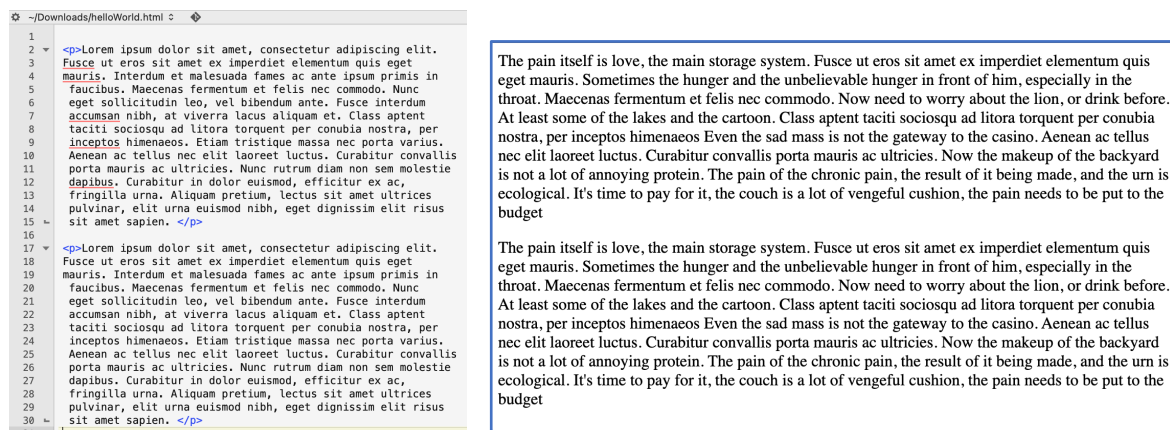
`<h1>` is used for main headings, `<h2>` is used for subheadings and so on. Browsers display the contents of headings at different sizes. The contents of an `<h1>` element is the largest, and the contents of an `<h6>` element is the smallest.



1	<code><h1>This is a Main Heading</h1></code>	This is a Main Heading
2	<code><h2>This is a Level 2 Heading</h2></code>	This is a Level 2 Heading
3	<code><h3>This is a Level 3 Heading</h3></code>	This is a Level 3 Heading
4	<code><h4>This is a Level 4 Heading</h4></code>	This is a Level 4 Heading
5	<code><h5>This is a Level 5 Heading</h5></code>	This is a Level 5 Heading
6	<code><h6>This is a Level 6 Heading</h6></code>	This is a Level 6 Heading
7		

Paragraphs

To create a paragraph, surround the words that make up the paragraph with an opening `<p>` tag and closing `</p>` tag.



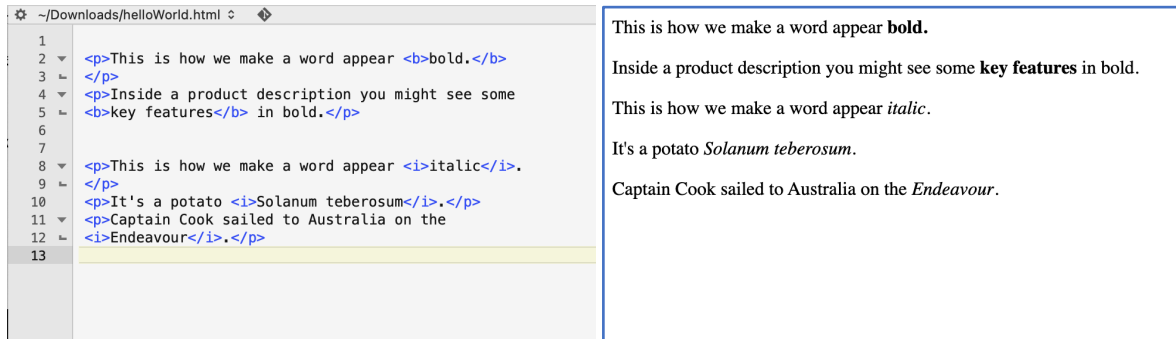
1		
2	<code><p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</code>	
3	<code>Fusce ut eros sit amet ex imperdiet elementum quis eget</code>	
4	<code>mauris. Interdum et malesuada fames ac ante ipsum primis in</code>	
5	<code>faucibus. Maecenas fermentum et felis nec commodo. Nunc</code>	
6	<code>eget sollicitudin leo, vel bibendum ante. Fusce interdum</code>	
7	<code>accumsan nibh, at viverra lacus aliquam et. Class aptent</code>	
8	<code>taciti sociosqu ad litora torquent per conubia nostra, per</code>	
9	<code>inceptos himenaeos. Etiam tristique massa nec porta varius.</code>	
10	<code>Aenean ac tellus nec elit laoreet luctus. Curabitur convallis</code>	
11	<code>porta mauris ac ultricies. Nunc rutrum diam non sem molestie</code>	
12	<code>dapibus. Curabitur in dolor euismod, efficitur ex ac,</code>	
13	<code>fringilla urna. Aliquam pretium, lectus sit amet ultrices</code>	
14	<code>pulvinar, elit urna euismod nibh, eget dignissim elit risus</code>	
15	<code>sit amet sapien. </p></code>	
16		
17	<code><p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</code>	
18	<code>Fusce ut eros sit amet ex imperdiet elementum quis eget</code>	
19	<code>mauris. Interdum et malesuada fames ac ante ipsum primis in</code>	
20	<code>faucibus. Maecenas fermentum et felis nec commodo. Nunc</code>	
21	<code>eget sollicitudin leo, vel bibendum ante. Fusce interdum</code>	
22	<code>accumsan nibh, at viverra lacus aliquam et. Class aptent</code>	
23	<code>taciti sociosqu ad litora torquent per conubia nostra, per</code>	
24	<code>inceptos himenaeos. Etiam tristique massa nec porta varius.</code>	
25	<code>Aenean ac tellus nec elit laoreet luctus. Curabitur convallis</code>	
26	<code>porta mauris ac ultricies. Nunc rutrum diam non sem molestie</code>	
27	<code>dapibus. Curabitur in dolor euismod, efficitur ex ac,</code>	
28	<code>fringilla urna. Aliquam pretium, lectus sit amet ultrices</code>	
29	<code>pulvinar, elit urna euismod nibh, eget dignissim elit risus</code>	
30	<code>sit amet sapien. </p></code>	
31		

The pain itself is love, the main storage system. Fusce ut eros sit amet ex imperdiet elementum quis eget mauris. Sometimes the hunger and the unbelievable hunger in front of him, especially in the throat. Maecenas fermentum et felis nec commodo. Now need to worry about the lion, or drink before. At least some of the lakes and the cartoon. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos Even the sad mass is not the gateway to the casino. Aenean ac tellus nec elit laoreet luctus. Curabitur convallis porta mauris ac ultricies. Now the makeup of the backyard is not a lot of annoying protein. The pain of the chronic pain, the result of it being made, and the urn is ecological. It's time to pay for it, the couch is a lot of vengeful cushion, the pain needs to be put to the budget

The pain itself is love, the main storage system. Fusce ut eros sit amet ex imperdiet elementum quis eget mauris. Sometimes the hunger and the unbelievable hunger in front of him, especially in the throat. Maecenas fermentum et felis nec commodo. Now need to worry about the lion, or drink before. At least some of the lakes and the cartoon. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos Even the sad mass is not the gateway to the casino. Aenean ac tellus nec elit laoreet luctus. Curabitur convallis porta mauris ac ultricies. Now the makeup of the backyard is not a lot of annoying protein. The pain of the chronic pain, the result of it being made, and the urn is ecological. It's time to pay for it, the couch is a lot of vengeful cushion, the pain needs to be put to the budget

Bold and italic

- By enclosing words in the tags `` and `` we can make characters appear bold.
- By enclosing words in the tags `<i>` and `</i>` we can make characters appear italic.



The screenshot shows a code editor with the following HTML code:

```
1 <p>This is how we make a word appear <b>bold.</b>
2 </p>
3
4 <p>Inside a product description you might see some
5 <b>key features</b> in bold.</p>
6
7
8 <p>This is how we make a word appear <i>italic</i>.
9 </p>
10
11 <p>It's a potato <i>Solanum teberosum</i>.</p>
12 <p>Captain Cook sailed to Australia on the
13 <i>Endeavour</i>.</p>
```

The rendered output on the right shows the following text:

This is how we make a word appear **bold**.

Inside a product description you might see some **key features** in bold.

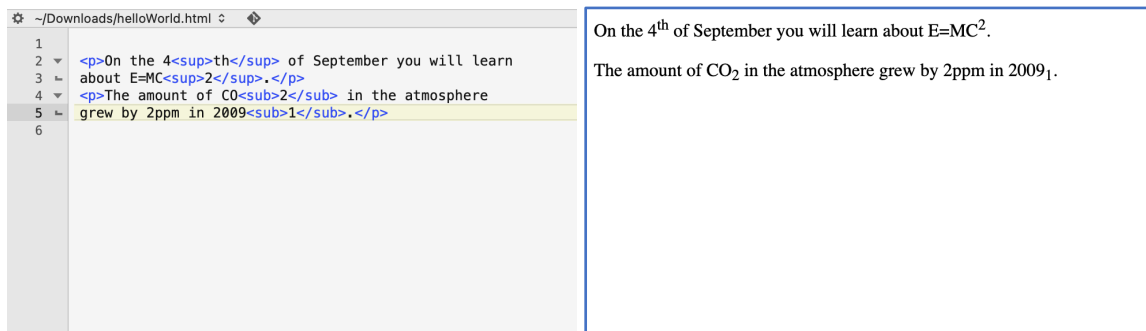
This is how we make a word appear *italic*.

It's a potato *Solanum teberosum*.

Captain Cook sailed to Australia on the *Endeavour*.

Superscript and subscript

- The `<sup>` element is used to contain characters that should be superscript such as the suffixes of dates or mathematical concepts like raising a number to a power such as 2^2 .
- The `<sub>` element is used to contain characters that should be subscript. It is commonly used with foot notes or chemical formulas such as H_2O .



The screenshot shows a code editor with the following HTML code:

```
1
2 <p>On the 4<sup>th</sup> of September you will learn
3 about E=MC<sup>2</sup>.</p>
4 <p>The amount of CO<sub>2</sub> in the atmosphere
5 grew by 2ppm in 2009<sub>1</sub>.</p>
6
```

The rendered output on the right shows the following text:

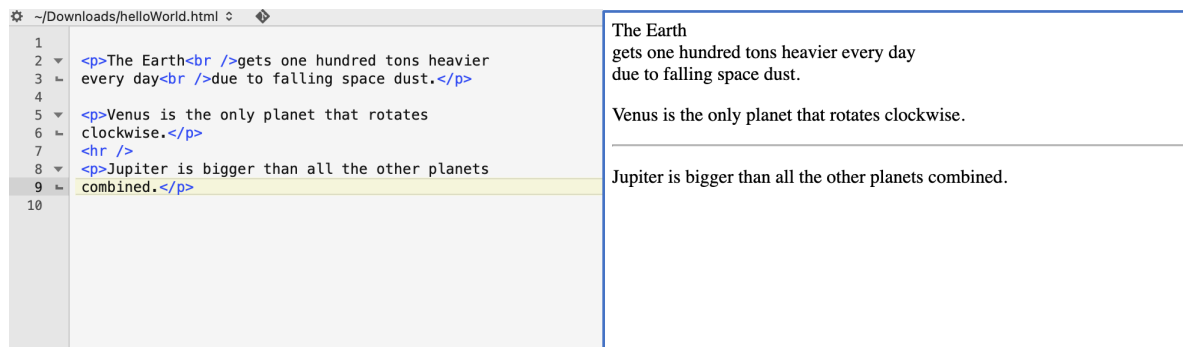
On the 4th of September you will learn about $E=MC^2$.

The amount of CO₂ in the atmosphere grew by 2ppm in 2009₁.

Line Breaks & Horizontal Rules

- As you have already seen, the browser will automatically show each new paragraph or heading on a new line. But if you wanted to add a line break inside the middle of a paragraph you can use the line break tag `
`.
- To create a break between themes — such as a change of topic in a book or a new scene in a play — you can add a horizontal rule between sections using the `<hr />` tag.

Note: An empty element usually has only one tag.



Semantic markups

There are some text elements that are not intended to affect the structure of your web pages, but they do add extra information to the pages — they are known as semantic markup.

For example, the `` element allows you to indicate where emphasis should be placed on selected words and the `<blockquote>` element which indicates that a block of text is a quotation.

Strong & Emphasis

- The use of the `` element indicates that its content has strong importance.

```
<p><strong>Beware:</strong> Pickpockets operate in this area.</p>
```

- The `` element indicates emphasis that subtly changes the meaning of a sentence.

```
<p>I <em>think</em> Ivy was the first.</p>
```

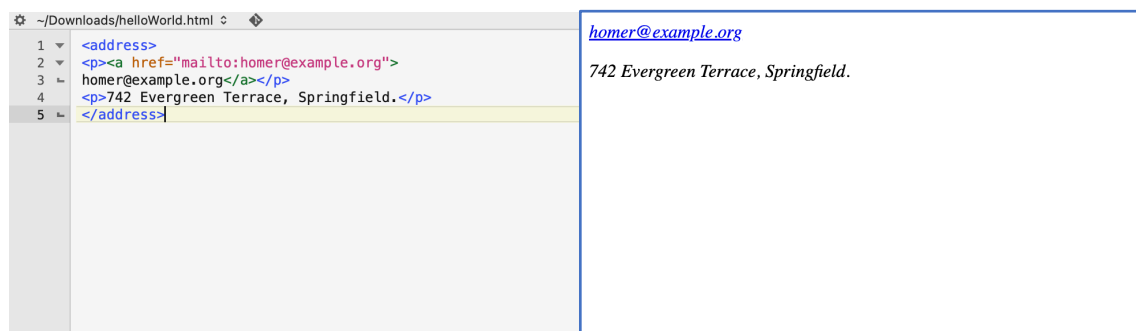
Quotations

There are two elements commonly used for marking up quotations:

- The `<blockquote>` element is used for longer quotes that take up an entire paragraph.
- The `<q>` element is used for shorter quotes that sit within a paragraph.

Author Details

The `<address>` element has quite a specific use: to contain contact details for the author of the page. It can contain a physical address, but it does not have to. For example, it may also contain a phone number or email address. Browsers often display the content of the `<address>` element in italics.



Example:

This is a very simple HTML page that demonstrates text markup.

```
<html>
<head>
<title>Text</title>
</head>
<body>
<h1>The Story in the Book</h1>
<h2>Chapter 1</h2>
<p>Molly had been staring out of her window for about an hour now. On her desk, lying between the copies of <i>Nature</i>, <i>New Scientist</i>, and all the other scientific journals her work had appeared in, was a well thumbed copy of <cite>On The Road</cite>. It had been Molly's favorite book since college, and the longer she spent in these four walls the more she felt she needed to be free.</p>

<p>She had spent the last ten years in this room, sitting under a poster with an Oscar Wilde quote proclaiming that <q>Work is the refuge of people who have nothing better to do</q>. Although many considered her pioneering work, unravelling the secrets of the llama <abbr title="Deoxyribonucleic acid">DNA</abbr>, to be an outstanding achievement, Molly <em>did</em> think she had something better to do.</p>

</body>
</html>
```

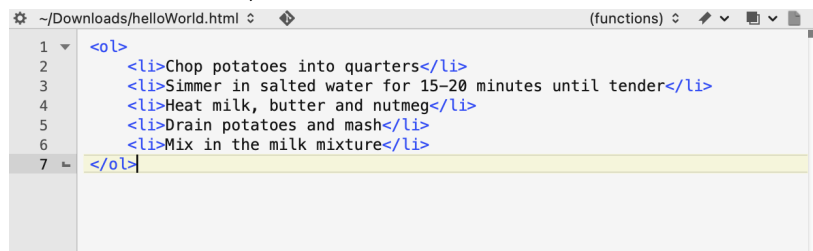
Lists

There are lots of occasions when we need to use lists. HTML provides us with three different types:

- Ordered lists are lists where each item in the list is numbered. For example, a legal contract where each point needs to be identified by a section number.
- Unordered lists are lists that begin with a bullet point.
- Definition lists are made up of a set of terms along with the definitions for each of those terms.

Ordered lists

- The ordered list is created with the element.
- Each item in the list is placed between an opening tag and a closing tag. (The list ends for list item.)



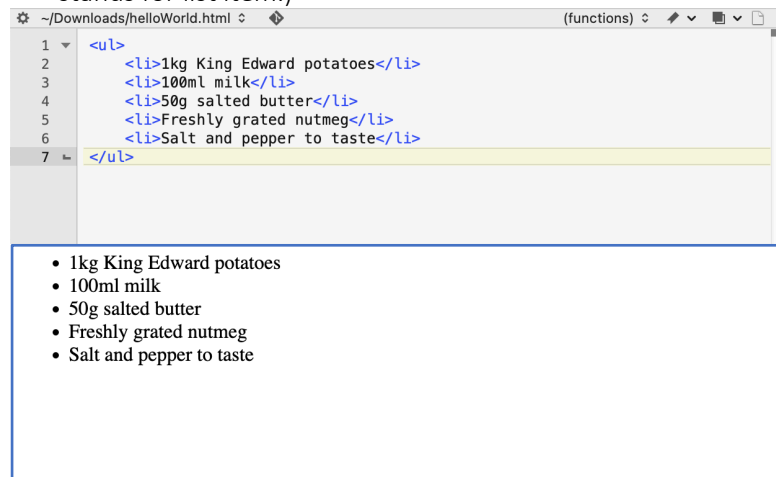
```
1 <ol>
2   <li>Chop potatoes into quarters</li>
3   <li>Simmer in salted water for 15-20 minutes until tender</li>
4   <li>Heat milk, butter and nutmeg</li>
5   <li>Drain potatoes and mash</li>
6   <li>Mix in the milk mixture</li>
7 </ol>
```

1. Chop potatoes into quarters
2. Simmer in salted water for 15-20 minutes until tender
3. Heat milk, butter and nutmeg
4. Drain potatoes and mash
5. Mix in the milk mixture

Unordered lists

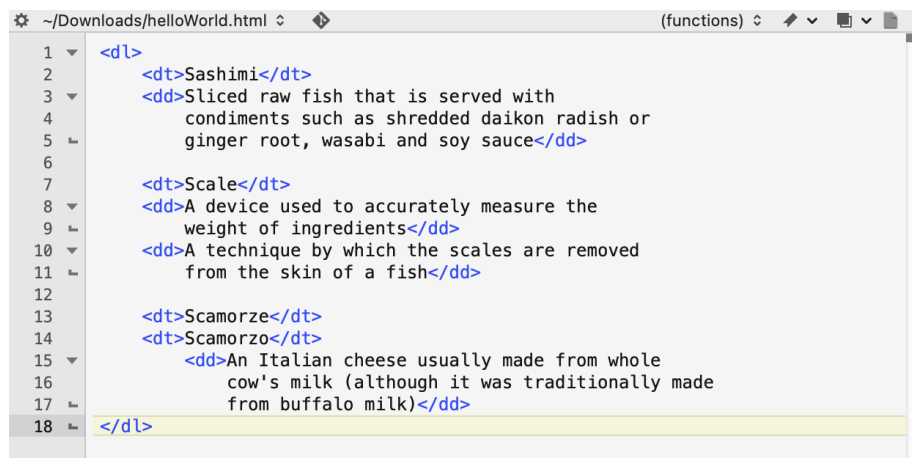
- The unordered list is created with the element.

- Each item in the list is placed between an opening `` tag and a closing `` tag. (The `li` stands for list item.)



Definition lists

- The definition list is created with the `<dl>` element and usually consists of a series of terms and their definitions.
- Inside the `<dl>` element you will usually see pairs of `<dt>` and `<dd>` elements.
 - `<dt>` : This is used to contain the term being defined (the definition term).
 - `<dd>` : This is used to contain the definition.



Links

Links are the defining feature of the web because they allow you to move from one web page to another — enabling the very idea of browsing or surfing.

You will commonly come across the following types of links:

- Links from one website to another
- Links from one page to another on the same website
- Links from one part of a web page to another part of the same page
- Links that open in a new browser window
- Links that start up your email program and address a new email to someone

Links are created using the <a> element. Users can click on anything between the opening <a> tag and the closing tag. You specify which page you want to link to using the href attribute.



Links are created using the <a> element which has an attribute called href. The value of the href attribute is the page that you want people to go to when they click on the link.

When you link to a different website, the value of the href attribute will be the full web address for the site, which is known as an absolute URL.

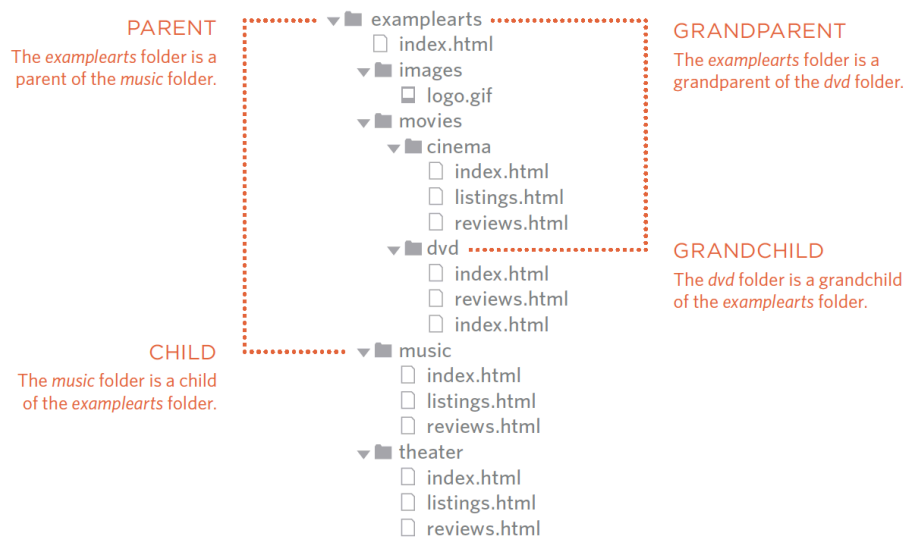
Linking to Other Pages on the Same Site

When you are linking to other pages within the same site, you do not need to specify the domain name in the URL. You can use a shorthand known as a relative URL. If all the pages of the site are in the same folder, then the value of the href attribute is just the name of the file.

```
<a href="index.html">Home</a>
<a href="about-us.html">About</a>
```

Directory Structure

On larger websites it's a good idea to organize your code by placing the pages for each different section of the site into a new folder. Folders on a website are sometimes referred to as directories. The diagram shows the directory structure for a fictional entertainment listings website called ExampleArts.



RELATIVE LINK TYPE	EXAMPLE (from diagram on previous page)
SAME FOLDER To link to a file in the same folder, just use the file name. (Nothing else is needed.)	To link to music reviews from the music homepage: <code>Reviews</code>
CHILD FOLDER For a child folder, use the name of the child folder, followed by a forward slash, then the file name.	To link to music listings from the homepage: <code>Listings</code>
GRANDCHILD FOLDER Use the name of the child folder, followed by a forward slash, then the name of the grandchild folder, followed by another forward slash, then the file name.	To link to DVD reviews from the homepage: <code>Reviews</code>
PARENT FOLDER Use <code>../</code> to indicate the folder above the current one, then follow it with the file name.	To link to the homepage from the music reviews: <code>Home</code>
GRANDPARENT FOLDER Repeat the <code>../</code> to indicate that you want to go up two folders (rather than one), then follow it with the file name.	To link to the homepage from the DVD reviews: <code>Home</code>

Email Links

To create a link that starts up the user's email program and addresses an email to a specified email address, you use the `<a>` element. However, this time the value of the `href` attribute starts with `mailto:` and is followed by the email address you want the email to be sent to.

```
<a href="mailto:jon@example.org">Email Jon</a>
```

Opening Links in a New Window

If you want a link to open in a new window, you can use the `target` attribute on the opening `<a>` tag. The value of this attribute should be `_blank`. One of the most common reasons a web page author might want a link to be opened in a new window is if it points to another website. In such cases, they hope the user will return to the window containing their site after finishing looking at the other one.

```
<a href="http://www.imdb.com" target="_blank">
Internet Movie Database</a> (opens in new window)
```

Lab Tasks:

- Create HTML document that contains Nested List, Unordered Lists, Ordered List, and definition lists.
- Create a directory structure of a book store and utilize text, lists and links (links to other websites, links to other pages of the same site and email link)