

Lab Exercise 02– Develop a web page

Objectives

By the end of this lab session, you will be able to:

- You will be able to understand page structure and HTML tags.

Prerequisites



- You will need a text editor, such as Notepad and an Internet browser, such as Internet Explorer or chrome.



- **Q:** What is Notepad and where do I get it?
- **A:** Notepad is the default Windows text editor. On most Windows systems, click your Start button and choose Programs then Accessories. It should be a little blue notebook.



Notepad
Desktop app

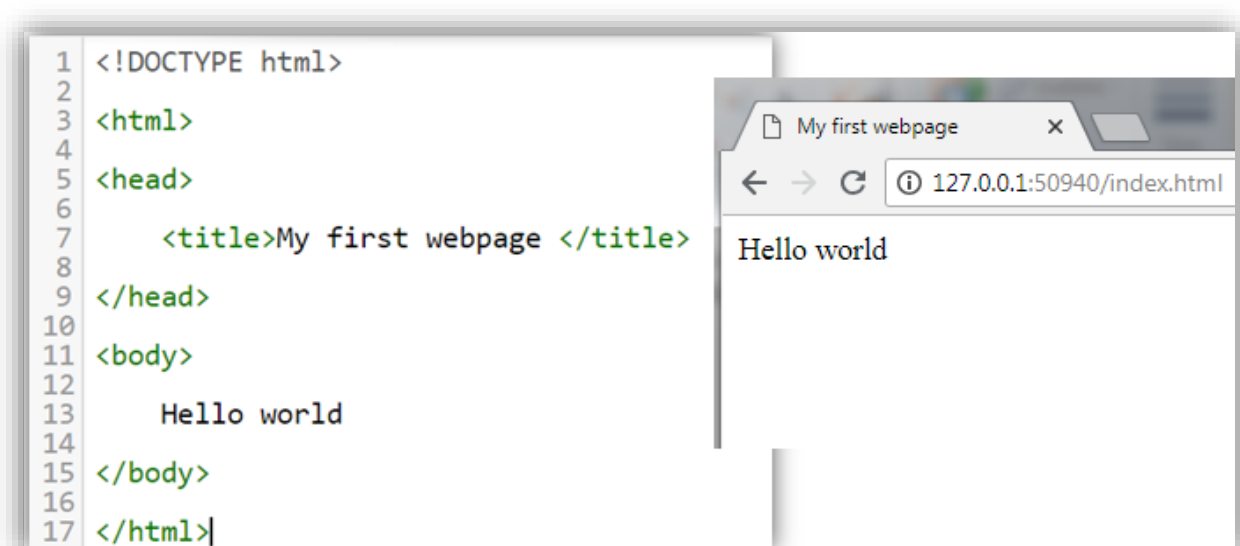
Lab Exercise 02– Develop a web page

Introduction

Website is a collection of **web pages** which are grouped together and usually connected in various ways.

A **web page** is a document commonly written in Hypertext Markup Language (**HTML**) that is accessible through the **Internet** or other network using an Internet browser. A **web page** is accessed by entering a URL address and may contain text, graphics, and hyperlinks to other **web** pages and files.

Example 1:



What you just made is a skeleton html document. This is the minimum required information for a web document and all web documents should contain these basic components.

Line Number	Description
1	The <code><!doctype></code> declaration is not an HTML tag; it is an instruction to the web browser about what version of the markup language the page is written in.
3	The first html tag in your html document is <code><html></code> . This tag tells your browser that this is the start of an html document.

Lab Exercise 02– Develop a web page

5	The text between the <code><head></code> tag and the <code></head></code> tag is header information. Header information is not displayed in the browser window.
7	The text between the <code><title></code> tags is the title of your document. The <code><title></code> tag is used to uniquely identify each document and is also displayed in the title bar of the browser window.
11	This HTML element starts with the start tag <code><body></code> and ends with the end tag <code></body></code> .
13	The purpose of the <code><body></code> tag is to define the HTML element that contains the body of the HTML.
17	The last tag in your document is <code></html></code> . This tag tells your browser that this is the end of the html document.

Text Elements

<code><!-- --></code>	HTML comments
<code><h1></code> to <code><h6></code>	Tags define headers. <code><h1></code> defines the largest header. <code><h6></code> defines the smallest header.
<code><p></code> <code></p></code>	HTML paragraphs are defined with the <code><p></code> tag.
<code>
</code>	The <code>
</code> tag inserts a single line break.
<code><hr /></code>	Creates a horizontal line in the HTML page.
<code><pre></code>	The <code><pre></code> tag defines preformatted text.

Exercise 1: Write the below code in the text editor.

Lab Exercise 02– Develop a web page

```

<!DOCTYPE html>
<html>
<body>
<h1>This is Heading 1 </h1> <br/>
<p>The hr tag defines a horizontal rule:</p>
<hr />
<p>This is a paragraph</p>
<hr />
<p>This is a paragraph</p>
  This
    is
      a
        paragraph...
<h2>This is Heading 2 </h2> <br/>
<pre>This
  is
    a
      paragraph...</pre>
</body>
</html>

```

This is Heading 1

The hr tag defines a horizontal rule:

This is a paragraph

This is a paragraph

This is a paragraph...

This is Heading 2

```

This
is
a
paragraph...

```

Nested Tags

You may have noticed in the example above, the <body> tag also contains other tags, like the tag. When you enclose an element in with multiple tags, the last tag opened should be the first tag closed. For example:

`<p>`*This is **NOT** the proper way to close nested tags.*`<p>`

`<p>`*This is the proper way to close nested tags.*`</p>`

Lab Exercise 02– Develop a web page

HTML Character Entities

Some characters have a special meaning in HTML, like the less than sign (<) that defines the start of an HTML tag. If we want the browser to display these characters, we must insert character entities in place of the actual characters themselves.

The Most Common Character Entities:

Result	Description	Entity Name	Entity Number
	non-breaking space	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	quotation mark	"	"
'	apostrophe	' (does not work in IE)	'

Hypertext Links

A link is the "address" to a document (or a resource) on the web.

Example 2:

```
<a href="http://courseweb.sliit.lk/">Visit to Our Course</a>
```

Hyperlinks, Anchors, and Links <a> Used to define both hyperlinks and anchors.

In web terms, a hyperlink is a reference (an address) to a resource on the web. Hyperlinks can point to any resource on the web: an HTML page, an image, a sound file, a movie, etc. An anchor is a term used to define a hyperlink destination inside a document.

Lab Exercise 02– Develop a web page

We will use the term HTML link when the `<a>` element points to a resource and the term HTML anchor when the `<a>` elements define an address inside a document.

Hypertext reference, **href** is an HTML attribute that is used either to link to another web page, or a different portion of the same page.

Image Tag

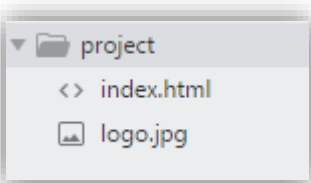
The `` tag is empty, which means that it contains attributes only and it has no closing tag. To display an image on a page, you need to use the `src` attribute. `Src` stands for "source". The value of the `src` attribute is the URL of the image you want to display on your page. The syntax of defining an image:

```

```

Not only does the source attribute specify what image to use, but where the image is located. The above image, `images/logo.jpg`, means that the browser will look for the image name `logo.jpg` in a `images` folder in the same folder as the `html` document itself.

Example 3: You can use `` tag like below in the `html` code.

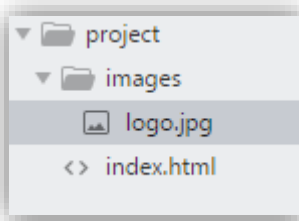


`src="logo.jpg"` means that the image is in the same folder as the `html` document calling for it.

```

```

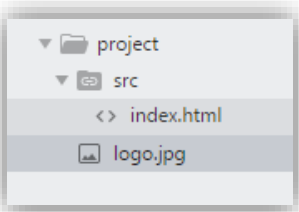
Lab Exercise 02– Develop a web page



src="images/logo.jpg" means that the image is one folder down from the html document that called for it. This can go on down as many layers as necessary.

```

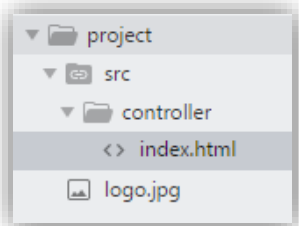
```



src="../logo.jpg" means that the image is in one folder up from the html document that called for it.

```

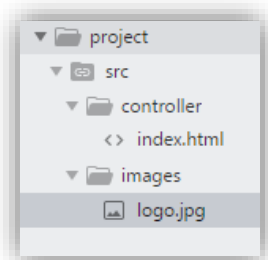
```



src="../../logo.jpg" means that the image is two folders up from the html document that called for it.

```

```



src="../images/logo.jpg" means that the image is one folder up and then another folder down in the images directory.

```

```

Lab Exercise 02– Develop a web page

HTML Tag

The tag defines an unordered (bulleted) list.

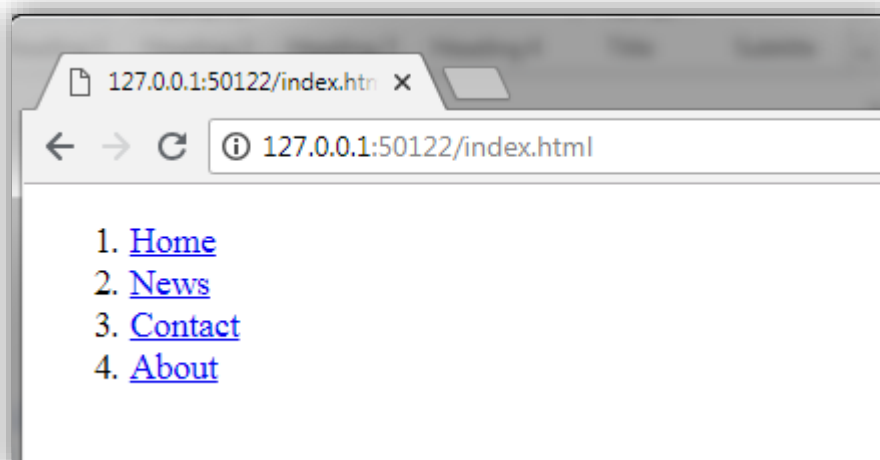
Use the tag together with the tag to create unordered lists.

Example 4:

```
1  <!DOCTYPE html>
2  <html>
3  <body>
4
5  <ul>
6    <li><a href="home.html">Home</a></li>
7    <li><a href="news.html">News</a></li>
8    <li><a href="contact.html">Contact</a></li>
9    <li><a href="about.html">About</a></li>
10 </ul>
11
12 </body>
13 </html>
```



Exercise 2: Create ordered list like below.

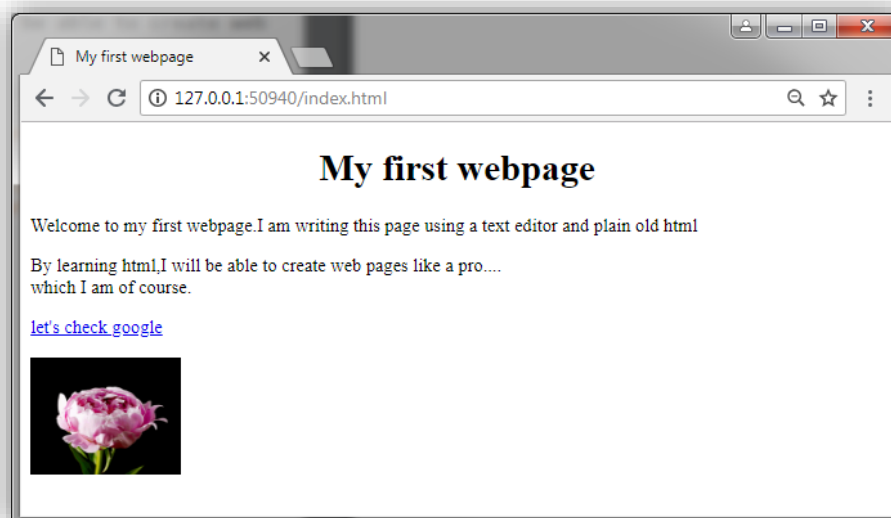


Hint: To create ordered lists, use the tag.

Lab Exercise 02– Develop a web page

Example 5: Below code is a sample for Text formatting, hyperlinks and images tags that you have learn above.

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>My first webpage</title>
5  </head>
6  <body>
7
8  <h1 align="center">My first webpage</h1>
9      <p>Welcome to my first webpage.I am writing this
      page using a text editor and plain old html</p>
      <p>By learning html,I will be able to create web
      pages like a pro....<br>
10     which I am of course.</p>
11     <!--Who would have guessed how easy this would be
      : -->
12     <a href="http://google.com" target="blank">let's
      check google</a>
13     <p>
      </p>
14 </body>
15 </html>
```

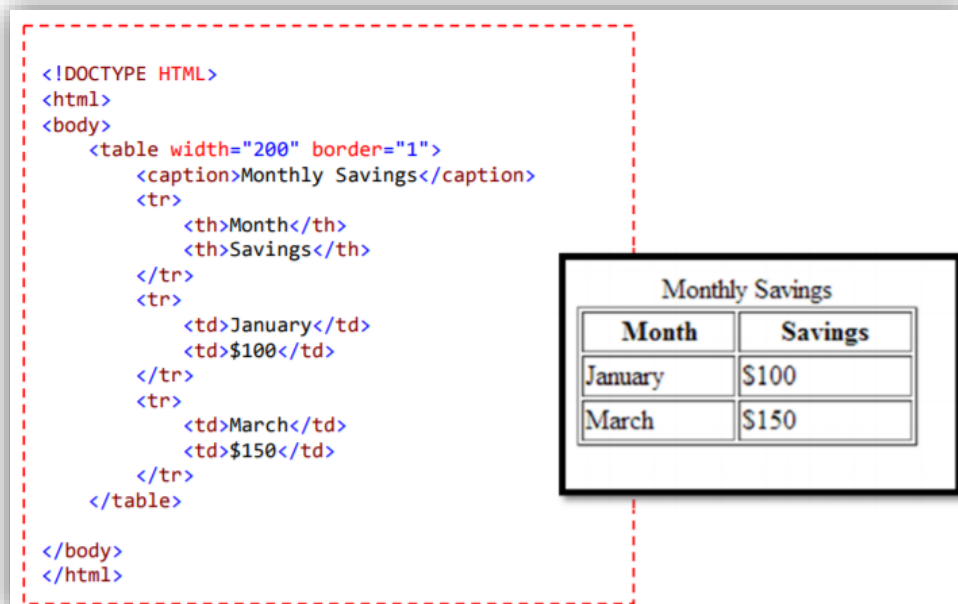


Lab Exercise 02– Develop a web page

Tables

Example 6:

- `<TABLE> </TABLE>` : Defines an HTML table
- `<CAPTION> </CAPTION>` : Defines a table caption.
- `<TR> </TR>` : Defines a standard cell in an HTML table.
- `<TH> </TH>` : Defines a header cell in an HTML table
- `<TD> </TD>` : Defines a row in an HTML table



Exercise 3:

1. Change the alignment of the table data to change the position to left, right and center.
2. Use the alignment for each cell separately.
3. Change the boarder of the table and add the **CELLSPACING** (keep the spacing in pixels between cells) and **CELLPADDING** (to change the space in pixels between cell border and table element, default about 1)
4. `<table border="1" cellpadding="10" cellspacing="10">`
5. Set the width in pixels or percentage of page/frame width.

Lab Exercise 02– Develop a web page

6. Change the Background color, Font color, Font size, Font types inside the cells.
(Hint: **BG**COLOR=color , also valid for <TR>, <TH>, and <TD>)
7. Show the internal line of a cell (Hint: You may use the RULES tag with necessary parameters).

References

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

Homework

Create html pages for your **Assignment**.

Follow below folder structure.

