

1. Working with text

Structure

Many webpages act like electronic versions of documents such as Newspapers.

Think about the stories you read in a newspaper: for each story, there will be a headline, some text, and possibly some images. If the article is a long piece, there may be subheadings that split the story into separate sections or quotes from those involved. Structure helps readers understand the stories in the newspaper.

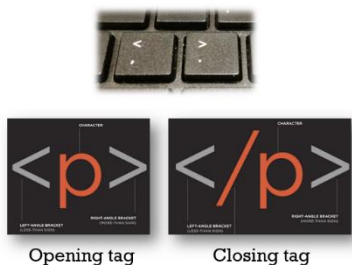
Structure is a way to build a webpage to make it easier for the reader to understand what he is reading. HTML code describes the structure of webpages.



The HTML code

The HTML code is made up of characters that live inside angled brackets which are called HTML

elements. Elements are usually made up of two **tags**: an opening tag and a closing tag.



Each HTML element tells the browser something about the information that sits between its opening and closing tags.

Basic HTML elements

The basics HTML elements are:

1. The opening **<html>** tag element indicates that anything between it and a closing **</html>** tag is HTML code
2. A **<head>** element contains information about the page such as title
3. The contents of the **<title>** element are either shown in the top of the browser, above where you usually type in the URL of the page you want to visit, or on the tab for that page (if your browser uses tabs to allow you to view multiple pages at the same time).
4. The **<body>** tag indicates that anything between it and the closing tag **</body>** should be inside the main browser window.
5. A paragraph of text appears between these **<p>** and **</p>** tags.

Headings elements

HTML has six levels of headings:

- `<h1>` is used for main headings
- `<h2>` is used for subheadings.
- If there are further sections under the subheadings then the `<h3>` element is used, and so on...

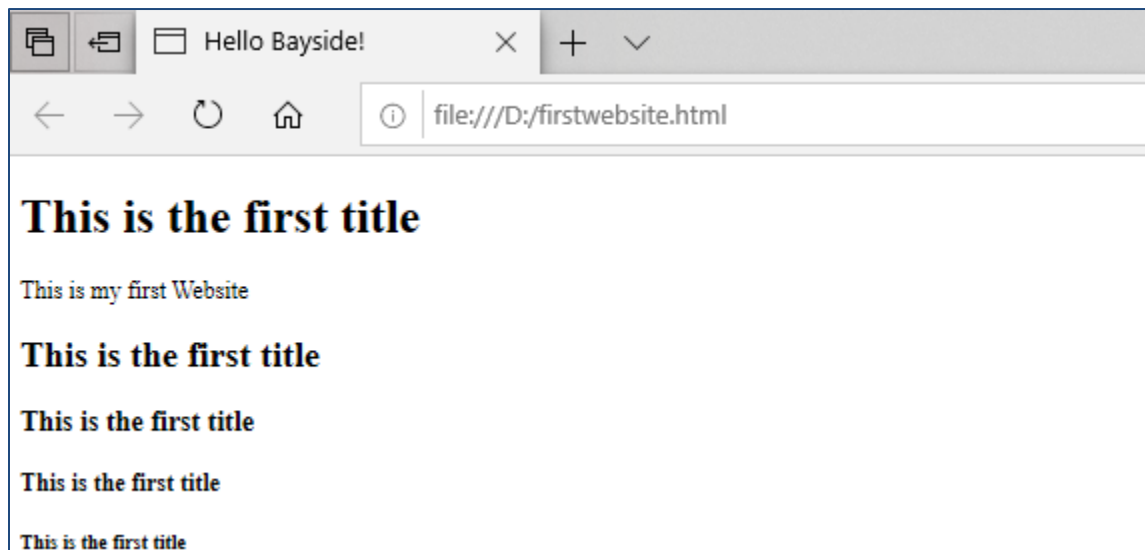
Exercises 1) Creating your first webpage

The HTML code can be written in a text editor such as notepad, notepad++, or Atom.

Open a new file in a text editor Atom and save the file as ***first_webpage.html***

Write a HTML code that will result in the following webpage. The webpage head title is "Title by: Student's name"

Display



HTML

```
firstwebsite.html
1  <!DOCTYPE html>
2  <html>
3
4  <head>
5    <title>Hello Bayside!</title>
6  </head>
7
8
9  <body>
10
11   <h1>This is the first title</h1>
12     <p> This is my first Website</p>
13   <h2>This is the first title</h2>
14   <h3>This is the first title</h3>
15   <h4>This is the first title</h4>
16   <h5>This is the first title</h5>
17   <h6>This is the first title</h6>
```

More elements

Bold

By enclosing words in the tags `` and `` we can make characters appear bold.

Example

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

DISPLAY

```
<p>Inside a product description you might see some <b> key features</b> in bold.</p>
```

HTML

Italic

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

Example

My cousin is reading *The Adventures of Tom Sawyer* for two classes: **English** and **History**.

DISPLAY

```
<p>My cousin is reading <i>The Adventures of Tom Sawyer</i> for two classes:  
<i><b> English </i></b> and <i><b> History</b></i>.</p>
```

HTML

Line Breaks

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 `
`

Example

The Earth
gets one hundred tons heavier every day
due to falling space dust.

DISPLAY

```
<p>The Earth<br>gets one hundred tons heavier every day </br>due to falling space dust.  
</p>
```

HTML

Horizontal Rules

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/>`

Example

Venus is the only planet that rotates clockwise.

Jupiter is bigger than all the other planets combined.

```
<p>Venus is the only planet that rotates clockwise.</p>
<hr> <p>Jupiter is bigger than all the other planets combined.</p>
```

DISPLAY

HTML

Semantic markup

```
<p>Venus is the only planet that rotates clockwise.</p>
<hr> <p>Jupiter is bigger than all the other planets combined.</p>
```

HTML

Strong

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

Example

Beware: Pickpockets operate in this area.
This toy has many small pieces and is **not suitable for children under five years old.**

DISPLAY

```
<p><strong>Beware:</strong> Pickpockets operate in this area.<br/>
This toy has many small pieces and is <strong>not suitable for children under five
years old. </strong></p>
```

HTML

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

By default, browsers will show the contents of an `` element in italic.

Example

Queensborough Community *College*
Queensborough *Community* College
Queensborough Community College

DISPLAY

```
<p>Queensborough Community <em>College</em></p>
<p>Queensborough<em> Community</em> College</p>
<p><em>Queensborough</em> Community College</p>
```

HTML

Abbreviations and Acronyms

If you use an abbreviation or an acronym, then the `<abbr>` element can be used. A title attribute on the

opening tag is used to specify the full term.

Example

<p>Demystifying the Mystery: QCC Physics professor addresses "Ripples in Space-Time".</p> <p>Queensborough Community College</p>	DISPLAY
<pre><p>Demystifying the Mystery: <abbr title="Queensborough Community College">QCC </abbr>Physics professor addresses "Ripples in Space-Time".</p></pre>	HTML

In HTML 4 there was a separate **<acronym>** element for acronyms. To spell out the full form of the acronym, the title attribute was used (as with the **<abbr>** element above). HTML5 just uses the **<abbr>** element for both abbreviations and acronyms.

Example

<p>Space exploration educators to speak with NASA astronaut aboard space.</p> <p>National Aeronautics and Space Administration</p>	DISPLAY
<pre><p>Space exploration educators to speak with <acronym title="National Aeronautics and Space Administration">NASA</acronym> astronaut aboard space.</p></pre>	HTML

Strikethrough

Strikethrough means to cross something out by drawing a line through it.

The **<s>** element indicates something that is no longer accurate or relevant (but that should not be deleted).

Visually the content of an **<s>** element will usually be displayed with a line through the center.

Example

<p>Laptop computer:</p> <p>Was \$995</p> <p>Now only \$375</p>	DISPLAY
---	---------

```
<p>Laptop computer:</p> <p><s>Was $995</s></p> <p>Now only $375</p>
```

Class Activity

Create a webpage named textActivity.html.

In the webpage textActivity_StudentLastName.html, using the different elements of HTML text, you are doing to format the following paragraph:

How can two income couples manage their cash flow without just lumping everything together? I feel like everyone I talk to has some convoluted system of accounts and credit cards or complete chaos. In either case, they are probably letting too much money sit in an account that earns very little return, they are over drafting that account, or they have to spend hours and hours tracking individual expenditures. There must be a better way to leverage apps and automation, but the big budgeting apps don't really have this feature.

The final result will look like this:

Week 1 - Class Activity: Use of Text in HTML

How can two income couples manage their cash flow without just lumping everything together? I feel like everyone I talk to has some convoluted system of accounts and credit cards or **complete chaos**. In either case, they are probably letting too much money sit in an account that earns very little return, they are over drafting that account, or they have to spend hours and hours tracking individual expenditures.

There must be a better way to leverage apps and automation, but the big budgeting apps don't really have this feature. Be careful with the IRS!

Internal Revenue Service

2. Working with *lists* in HTML

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

Ordered listed

Ordered lists are lists where each item in the list is numbered. For example, the list might be a set of steps for a recipe that must be performed in order, or a legal contract where each point needs to be identified by a section number.

The ordered 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.)

How to make brownies:

1. Preheat oven to 350 degrees F. Grease and flour an 8-inch square pan
2. In a large saucepan, melt 1/2 cup butter.
3. Bake in preheated oven for 25 to 30 minutes.

DISPLAY

`<p>How to make brownies:`

``

`Preheat oven to 350 degrees F. Grease and flour an 8-inch square pan`

`In a large saucepan, melt 1/2 cup butter. `

`Bake in preheated oven for 25 to 30 minutes.`

``

`</p>`

HTML

Ordered List – “type” attribute

Attributes provide additional information about HTML elements.

The **type** attribute of the `` tag, defines the type of the list item marker. Attributes provide additional information about HTML elements.

Type	Description
type="1"	The list items will be numbered with numbers (default)
type="A"	The list items will be numbered with uppercase letters
type="a"	The list items will be numbered with lowercase letters

type="I"	The list items will be numbered with uppercase roman numbers
type="i"	The list items will be numbered with lowercase roman numbers

DISPLAY

Ordered List with Letters

- A. Coffee
- B. Tea
- C. Milk

HTML

```
<h2>Ordered List with Letters</h2>
<ol type="A">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

Online Tutorial:

<https://www.w3schools.com/html/default.asp>