

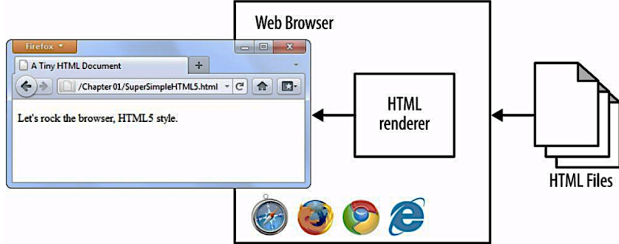
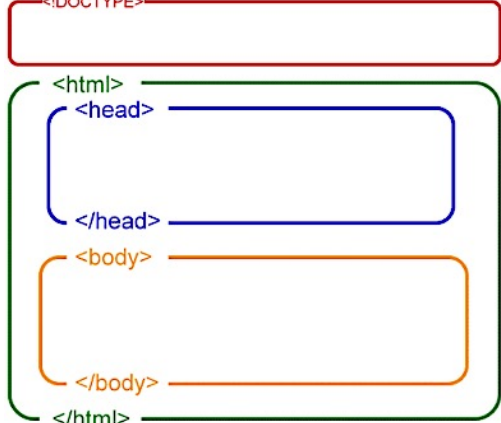
HTML


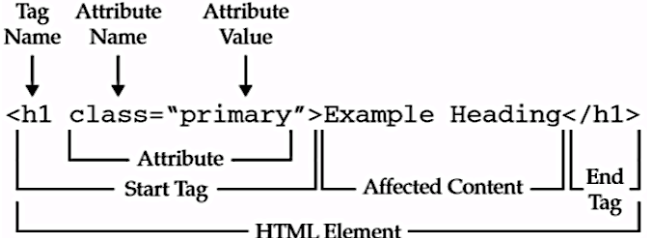
It is a language for describing Web pages. (created in 1991 by Tim Berners Lee)

- It stands for Hyper Text Markup Language.
- It is not a programming language, it is markup language.
- A markup language is a collection of markup tags
- It uses markup tags to describe Web pages.


HTML's do;

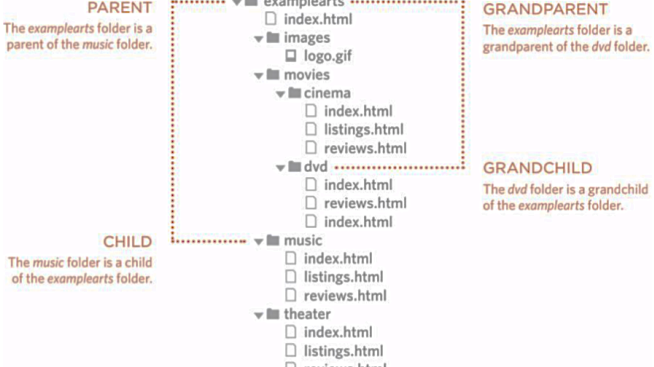
- Storage, Type, Motion, Games, Audio, 3D, Video

How to write HTML files	Index.html	Just like most programming languages, we type a bunch of HTML into file, so we can send it around.
How to display files		Web browsers are basically "HTML Readers"
Structure of an HTML Page		<pre> <!doctype html> <html> <head> <title>This is my title</title> </head> <body> This is my first html program </body> </html> </pre>
DOCTYPE	<p>It is an instruction to the web browser about what version of HTML the page is written in</p> <ul style="list-style-type: none"> • Must be at the top of the document • Declaration is not case-sensitive 	<!DOCTYPE html>

Tags	They act like containers. They tell you something about the information that lies between their opening and closing tags.	
Attributes	-provide additional information about the contents of an element. They appear on the opening tag of the element and are made up of two parts: a name and a value , separated by an equal sign.	

Headings	<pre> <body> <h1>This is main heading</h1> <h2>This is level-2 heading</h2> <h3>This is level-3 heading</h3> <h4>This is level-4 heading</h4> <h5>This is level-5 heading</h5> <h6>This is level-6 heading</h6> </body> </pre>	<p>This is main heading</p> <p>This is level-2 heading</p> <p>This is level-3 heading</p> <p>This is level-4 heading</p> <p>This is level-5 heading</p> <p>This is level-6 heading</p>
Paragraphs <p>	<pre> <body> <h1>Car Web Site</h1> <p>Welcome to the car web site. Everything you want to know about Car is in this web site</p> <h2>This is section on Honda</h2> <p>Honda is a Japanese car</p> </body> </pre>	<p>Car Web Site</p> <p>Welcome to the car web site. Everything you want to know about Car is in this web site</p> <p>This is section on Honda</p> <p>Honda is a Japanese car</p>
LineBreaks Horizontal Rules <hr/>	<pre> <body> <h1>Car Web Site</h1> <!--To add a line break inside the middle of a paragraph, use
--> <p>Welcome to the car web site.
 Everything you want to know about Car is in this web site</p> <!--to create break between themes--> <hr/> <!--&nbsp new break space test &nbsp test--> <h2>This is section on Honda</h2> <p>Honda is a Japanese car</p> </body> </pre>	<p>Car Web Site</p> <p>Welcome to the car web site.</p> <p>Everything you want to know about Car is in this web site</p> <hr/> <p>This is section on Honda</p> <p>Honda is a Japanese car</p>
Bold Italic <i> Underlined <u>	<pre> <body> <h1>Car Web Site</h1> <!--to bold we use --> <p>Welcome to the car web site . Everything you want to know about Car is in this web site</p> <hr/> <!--to underlined we use <u> </u>--> <h2>This is for <u>Honda</u></h2> <!--to italic we use <i> </i>--> <p>Honda is a <i>Japanese</i> car</p> </body> </pre>	<p>Car Web Site</p> <p>Welcome to the car web site. Everything you want to know about Car is in this web site</p> <hr/> <p>This is for <u>Honda</u></p> <p>Honda is a <i>Japanese</i> car</p>
Comment <!-- -->	<pre> <body> <h1>Car Web Site</h1> <p>Welcome to the car web site . Everything you want to know about Car is in this web site</p> <!--This is the comment part--> <h2>This is section on <u>Honda</u></h2> <p>Honda is a <i>Japanese</i> car</p> </body> </pre>	<p><!-- --></p>

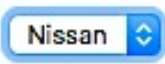
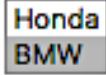

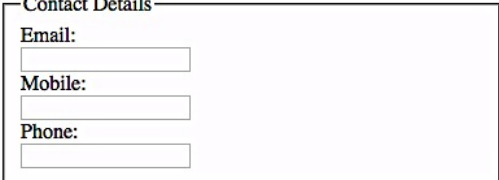

Align & Style	<pre> <body> <h1>Car Web Site</h1> <p>Welcome to the car web site . Everything you want to know about Car is in this web site</p> <h2 align="left" style="color: blue"> This is section on <u>Honda</u></h2> <p>Honda is a <i>Japanese</i> car</p> </body> </pre>	<h2>Car Web Site</h2> <p>Welcome to the car web site. Everything you want to know about Car is in this web site</p> <p>This is section on <u>Honda</u></p> <p>Honda is a <i>Japanese</i> car</p>
IMAGES 	<pre> <body> <h1>Car Web Site</h1> <p>Welcome to the car web site . Everything you want to know about Car is in this web site</p> <!--img; element src; to find image location alt;text description if you can not seen it--> <h2>This is section on <u>Mustang</u> </h2> <p>Mustang is an <i>American</i> car </p> </body> </pre>	<h2>Car Web Site</h2> <p>Welcome to the car web site. Everything you want to know about Car is in this web site</p>  <p>This is section on <u>Mustang</u></p> <p>Mustang is an <i>American</i> car</p>
LIST - Ordered L. - Unordered L. - Definition L. <dl> <dt> <dd> - Nested L.	<pre> <body> <!--Ordered List--> Honda <!--Nested List--> Civic Accord Toyota Nissan <!--Unordered List--> Mercedes BMW Jaguar <dl><!--Definition List--> <dt>HTML</dt><!--def. Term--> <dd>HTML stands for Hyper< TextMarkupL anguage</dd> <dt>JavaScript</dt> <dd>JavaScript is oop language</ <dd><!--definition--> </dl> </body> </pre>	<ol style="list-style-type: none"> Honda <ul style="list-style-type: none"> Civic Accord Toyota Nissan <ul style="list-style-type: none"> Mercedes BMW Jaguar <p>HTML HTML stands for HyperTextMarkupLang JavaScript JavaScript is oop language</p>

LINKS	<pre> <body> <!--Linking to outside of the page--> <p>please click on this link Car </p> <!--Opening Links in a New Window--> <p>please click on this link CarMax </p> </body> </pre>	<p>please click on this link Car</p> <p>← OPEN LINKs in a NEW WINDOW target attribute and its value is _blank</p>
	<pre> <body> <!--Linking to other pages on the same sites --> <p>Car review: <!--if all pages of the site are in the same folder, href attribute is just the name of the file--> Home Home Home </p> </body> </pre>	<p>Car Reviews:</p> <ul style="list-style-type: none"> • Home • About • Contact
Directory Structure	<p>On larger websites it is a good idea to organize the 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.</p>	
Relative URLs	SAME FOLDER To link to a file in the same folder, just use the file name	To link to music reviews from music homepage Reviews
	CHILD FOLDER name of the child folder/ the file name.	To link to music listings from music homepage Listings
	GRANDCHILD FOLDER Use the name of the child folder / the name of the grandchild folder/file name	To link to DVD reviews from homepage Reviews
	PARENT FOLDER Use ../ to indicate the folder above the current one / file name	To link to homepage from music reviews Home
	GRANDPARENT FOLDER Repeat the ../ to indicate that you want to go up two folders / file name	To link to homepage from DVD reviews Home

<div>TABLE</div> <div><table> <tr> <td> <th></div>	<div><body> <table><!--Element--> <tr><!--Tag to table ROW--> <th>The Planets</th><!--Heading--> <th>The Oceans</th> <th>The Deserts</th> </tr> <tr> <td>Earth</td><!--Data--> <td>Pacific</td> <td>Sahara</td> </tr> </table>

 <table> <tr> <th></th> <th>Saturday</th> <th>Sunday</th> </tr> <tr> <th>Tickets Sold</th> <td>120</td> <td>135</td> </tr> <tr> <th>Total Sales</th> <td>\$600</td> <td>\$1000</td> </tr> </table> </body></div>	<div>>The <table> element → to add tables > Each row is created with the <tr> element. >Inside each row →cells represented by the <td> element (or <th> if it is a header). > make cells of a table span more than one row or column → rowspan and colspan attributes.</div> <div><table><tr><th>The Planets</th><th>The Oceans</th><th>The Deserts</th></tr><tr><td>Earth</td><td>Pacific</td><td>Sahara</td></tr><tr><td>Batuhan</td><td>Atlantic</td><td>Gobi</td></tr></table> <table><tr><th></th><th>Saturday</th><th>Sunday</th></tr><tr><td>Tickets Sold</td><td>120</td><td>135</td></tr><tr><td>Total Sales</td><td>\$600</td><td>\$1000</td></tr></table></div>	The Planets	The Oceans	The Deserts	Earth	Pacific	Sahara	Batuhan	Atlantic	Gobi		Saturday	Sunday	Tickets Sold	120	135	Total Sales	\$600	\$1000
The Planets	The Oceans	The Deserts																		
Earth	Pacific	Sahara																		
Batuhan	Atlantic	Gobi																		
	Saturday	Sunday																		
Tickets Sold	120	135																		
Total Sales	\$600	\$1000																		
	<div><body> <table> <tr> <th></th> <td>9am</td> <td>10am</td> <td>11am</td> <td>12am</td> </tr> <tr> <th>Monday</th><!--Data--> <td align="center" colspan="3">HTML</td> <td rowspan="2">JS</td> </tr> <tr> <th>Tuesday</th> <td>SQL</td> <td>JS</td> <td>SQL</td> </tr> </table> </body></div>	<div>SPANNING COLUMNS & ROWS</div> <div><table><tr><th></th><th>9am</th><th>10am</th><th>11am</th><th>12am</th></tr><tr><td>Monday</td><td></td><td>HTML</td><td></td><td></td></tr><tr><td>Tuesday</td><td>SQL</td><td>JS</td><td>SQL</td><td>JS</td></tr></table></div>		9am	10am	11am	12am	Monday		HTML			Tuesday	SQL	JS	SQL	JS			
	9am	10am	11am	12am																
Monday		HTML																		
Tuesday	SQL	JS	SQL	JS																
<div>GROUPING TEXT & ELEMENT in a BLOCK</div> <div><div></div>	<div><body> <div> <h3>This is first group</h3> Java JS Ruby </div> <div> <h3>This is second group</h3> C++ Python Go </div> </body></div>	<div>This is first group</div> <div><ul style="list-style-type: none">• Java• JS• Ruby</div> <div>This is second group</div> <div><ul style="list-style-type: none">• C++• Python• Go</div>																		

FORMS <form>	has referred to a printed document that contains spaces for you to fill in info. 1- Adding Text: Text Input (single Line), Text Area (Multi-Line), Password Input 2- Making Choices: Radio Buttons, Checkboxes, Drop-down boxes 3- Submitting Forms: Submit and Image Buttons 4- Uploading Files	
<u>Text Input</u> <input> 1-type="text" 2-name	<pre> <form> <p>Username: <!--Add a Label--> <input type="text" name="username" size="15" maxlength="30"/> </p> </form> </pre>	Username: <input type="text"/>
<u>Password Input</u> <input> 1-type="text" 2-name	<pre> <form> <p>Password: <input type="text" name="username" value=" password" />
 <!--Label for username (it has to match)--> <label for="username">Username:</label> <input type="text" id="username" name=" username" value="username" /> </p> </form> </pre>	value="" Password: <input type="password" value="password"/> Username: <input type="text" value="username"/>
<u>Text Area</u> <textarea> 1-name="text"	<pre> <form> <p>Comments:
 <textarea name="comments" cols="20" rows="3"> Enter Your Comments</textarea> </p> </form> </pre>	Comments: <input type="text" value="Enter Your Comments"/>
<u>Radio Button</u> <input> 1-type="radio" 2-name="" 3-value=""	<pre> <form> <p>Choose your programming language:</p> <input type="radio" name="program" value="Java"> Java</> <!--Default check--> <input type="radio" name="program" value="JS" checked="checked">JS</> <input type="radio" name="program" value="HTML"> HTML</> </form> </pre>	Choose your programming language: <input type="radio"/> Java <input checked="" type="radio"/> JS <input type="radio"/> HTML
<u>Check Button</u> <input> 1-type="checkbox" 2-name="" 3-value=""	<pre> <form> <p>What is your subject</p> <input type="checkbox" name="sport" value=""> Football
 <!--Default check--> <input type="checkbox" name="sport" value="" checked="checked">Basketball
 <input type="checkbox" name="sport" value=""> Baseball
 </form> </pre>	What is your subject <input type="checkbox"/> Football <input checked="" type="checkbox"/> Basketball <input type="checkbox"/> Baseball

<u>Drop-Down List Box</u> <select> 1-name="" <option value="">	<pre> <form> <p>Select your car: <select name="cars"> <option value="">Honda</option> <option value="" selected="">Nissan</option> <option value="">Acura</option> <option value="">Toyota</option> </select> </p> </form> </pre>	Select your car: 
<u>Multiple Select Box</u> <select> 1-name="" 2-size="" <option value="">	<pre> <form> <p>Select your car: <select name="cars" size="2" multiple="multiple"> <option value="">Honda</option> <option value="" selected="">BMW</option> <option value="">Acura</option> <option value="">Toyota</option> </select> </p> </form> </pre>	Select your car: 
<u>Submit Button</u> <input> 1-name="text" <input> 1-name="submit"	<pre> <form> <p>Subscribe to our email list:
 <input type="text" name="subsr" value="email"> <input type="submit" name="submit" value="submit"> </p> </form> </pre>	Subscribe to our email list: 
<u>Grouping Form Elements</u> <fieldset> <legend> <input> 1-type="text" 2-name=	<pre> <form> <fieldset> <legend>Contact Details</legend> <label>Email:
 <input type="text" name="email"></label>
 <label>Mobile:
 <input type="text" name="mobile"></label>
 <label>Phone:
 <input type="text" name="mobile"></label>
 </fieldset> </form> </pre>	
<u>Search Button</u> <input> 1-type="search" 1-name=""	<pre> <form> <p>Search:
 <input type="search" name="search" value="Keyword"> <input type="submit" name="submit" value="Search"> </p> </form> </pre>	Search: 



CSS (Cascading Style Sheets)

It allows you to create rules that specify how the content of an element should appear.

- It describes how HTML elements are to be displayed on screen, paper, or in media.
- It saves a lot of work. It can control the layout of multiple web pages all at once.
- External style sheets are stored in its files.

<p>selector</p> <p>property</p> <p>value</p> <p>declaration end</p> <p>declaration start</p> <p>property/value separator</p> <p>declaration separator</p>	<p>selector: indicate which element the rule applies to.</p> <p>declarations: indicate how the elements referred to in the selector should be styled</p> <p>properties: indicate the aspects of the element you want to change</p> <p>values: specify the settings you want to use for the chosen properties.</p>
---	---

<p>Using Internal CSS</p> <p><head> <style> 1-type="text/css"</p>	<pre> <head> <style type="text/css"> body{ background-color: yellow; } h1, h2{ background-color: blue; color: white; } h2{ color: red; } p{ color: green; font-size: 25px; font-family:Tahoma; font-style: italic; } </style> </head> </pre>	
<p>Using External CSS</p>	<p>!!!ExternalCSS must be in the same folder!!!</p> <pre> <link> href="" (path to the CSS file) type="" (type of doc being linked to) rel="" (relationship) <head> <link rel="stylesheet" type="text/css" href="externalCSS.css"> </head> </pre>	
<p>Inheritance</p>	<pre> body{ color:green; } p{ /*overriding*/ color:red; } </pre>	

4- Margin Properties	<pre> <style type="text/css"> h1{ background-color:red; /*margin:top right bottom left;*/ margin:0px 150px 0px 20px; padding:20px 30px; border:10px ridge blue; border-left-color: yellow; border-top-width: 2px; } h2{ background-color: blue; padding: 20px 40px 30px 20px; } </style> </pre>	 <p>Welcome to the car web site. Everythin you want to know about Car is in this web site</p>  <p>Honda is a Japanese car</p>
-----------------------------	---	---

SELECTOR	MEANING	EXAMPLE
UNIVERSAL SELECTOR	Applies to all elements	* { }
TYPE SELECTOR	Matches element names	h1, h2, h3 { }
CLASS SELECTOR	Matches an element whose class att. has a value that matches the one specified after the period (or full stop) symbol	.note { } –target any element whole class attribute has a value of note p.note { } –target only <p> elements...
ID SELECTOR	Matches an element whose id att has a value that matches the one specified after the pound or hash symbol	# introduction { }
CHILD SELECTOR	Matches an element that is a direct child of another	li>a { } – targets any <a> elements that are children of an element (but not other <a> element in the page)
DESCENDANT SELECTOR	Matches an element that is a descendent of another specified element (not just a direct child of that element)	p a { } – targets any <a> elements that sit inside a <p> element, even if there are other elements nested between them
ADJACENT SIBLING SELECTOR	Matches an element that is the next sibling of another	h1+p { } – targets the first <p> element after any <h1> element (but not other <p>)
GENERAL SIBLING SELECTOR	Matches an element that is a sibling of another, although it does not have to be the directly preceding element	h1~p{ } – if you had two <p> elements that are siblings of an <h1> element, this rule would apply to both.

CLASS & ID SELECTOR	<pre> <body> <h1>Car Web Site</h1> <!--for CLASS selector--> <p class="p1">Welcome to the car web site.</p> <h2>This is a section on Honda</h2> <!--for ID selector--> <p id="p2">Honda is a Japanese car</p> </body> </pre>	<pre> <head> <style type="text/css"> /*CLASS selector*/ .p1{ color: blue; } /*ID selector*/ #p2{ font-style: italic; } </style> </head> </pre>
--------------------------------	---	--

DOM (Document Object Model)

getElementById() - Select elements by their id

index.html	script.js
<pre><body> <p id="para1">Some text for this class</p> <input type="button" onclick="changeStyle()" value="Submit"> </body></pre>	<pre>function changeStyle(){ document.getElementById("para1").style.color="red"; document.getElementById("para1").style.backgroundColor="blue"; document.getElementById("para1").style.fontStyle="italic"; }</pre>

getElementsByName() - returns a collection of all elements in the document with the specified tag name.

<pre><body> <p id="para1">Some text for this class-1</p> <p id="para2">Some text for this class-2</p> <p id="para3">Some text for this class-3</p> <p id="para4">Some text for this class-4</p> <input type="button" onclick="changeStyle()" value="Submit"> <!--onclick is an EVENT--> </body></pre>	<pre>function changeStyle(){ //I access to my DOM var paragraph = document.getElementsByTagName("p") for (var i=0;i<paragraph.length;i++){ paragraph[i].style.color="red"; } }</pre>
---	--

getElementsByClassName() - Select elements by their class name

<pre><body> <p class="para">Some text for this class-1</p> <p class="para">Some text for this class-2</p> <p class="para">Some text for this class-3</p> <p class="para">Some text for this class-4</p> <input type="button" onclick="changeStyle()" value="Submit"> </body></pre>	<pre>function changeStyle() { var paragraph = document.getElementsByClassName("para"); //paragraph[0].style.color="blue"; for (var i = 0; i < paragraph.length; i++) { paragraph[i].style.color = "green"; } }</pre>
--	---

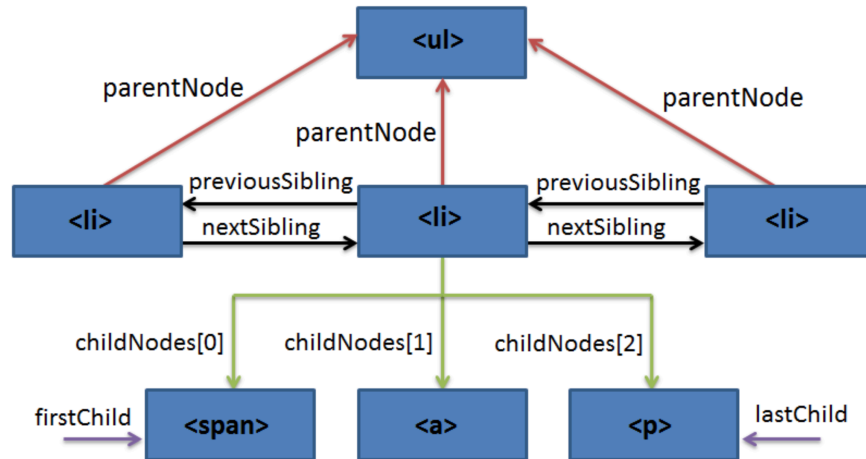
innerHTML - innerHTML property sets or returns the HTML content of an element

<pre><body> <p id="myP">I am a paragraph</p> <p>Click the button get the HTML content of the p element</p> <input type="button" onclick="changeStyle()" value="Submit"> <p id="demo"></p> </body></pre>	<pre>function changeStyle() { var x = document.getElementById("myP").innerHTML; document.getElementById("demo").innerHTML = x; }</pre>
TASK: Hello There. -->class="para" This is Mike Smith -->class="para" Hello There.This is Mike Smith	
<pre><body> <p class="para">Hello There.</p> <p class="para">This is Mike Smith</p> <input type="button" onclick="changeStyle()" value="Submit"> <p id="para"></p> </body></pre>	<pre>function changeStyle() { var arr = document.getElementsByClassName("para"); var text1 = arr[0].innerHTML; var text2 = arr[1].innerHTML; document.getElementById("para").innerHTML=`\${text1} \${text2}`; }</pre>

querySelector() - Get the first element in the document

<pre><body> <p>Hello There.</p> <p>This is Mike Smith</p> <p>I love JavaScript</p> <input type="button" onclick="changeStyle()" value="Submit"> <p id="para"></p> </body></pre>	<pre>function changeStyle(){ document.querySelector("p").style.color="red"; }</pre>
--	---

How to TRAVERSE the DOM ? (We can travel between elements)



index.html

```
<!DOCTYPE html>
<html lang="en">

<head>
  <script src="script.js"></script>
</head>

<body>
  <header id="main header" class="bg-success">
    <div class="container">
      <h1 id="header-title">Item Lister<span style="display:none">123</span></h1>
    </div>
  </header>
  <div class="container">
    <div id="main" class="card-body">
      <h2 class="title">Add Items</h2>
      <form class="form-inline">
        <input type="text" class="form-control">
        <input type="button" onclick="myFunction()" value="Try it">
      </form>
      <h2 class="title">Items</h2>
      <ul id="items" class="list-group">
        <li class="list-group-item">Item1</li>
        <li class="list-group-item">Item2</li>
        <li class="list-group-item">Item3</li>
        <li class="list-group-item">Item4</li>
      </ul>
      <p></p>
    </div>
  </div>
</body>
</html>
```

script.js

```
function myFunction() {
  var itemList = document.querySelector("#items");
  //console.log(itemList);

  //parentNode & parentElement
  //console.log(itemList.parentNode);
  itemList.parentNode.style.color="green";
  itemList.parentElement.style.color="green"; //1

  //childNodes - Not good
  //console.log(itemList.childNodes)

  //firstElementChild
  //console.log(itemList.firstElementChild)
  itemList.firstElementChild.innerHTML = "Hello"; //2

  //lastElementChild
  //console.log(itemList.lastElementChild);
  itemList.lastElementChild.style.color="red"; //3

  //nextElementChild
  //console.log(itemList.nextElementChild);
  //itemList.nextElementChild.style.color="red";

  //previousSibling
  //console.log(itemList.previousSibling);
}
```

//1
Item Lister

Add Items

Items

- Item1
- Item2
- Item3
- Item4

//2
Items

- Hello
- Item2
- Item3
- Item4

//3
Items

- Item1
- Item2
- Item3
- **Item4**

TASK

MINI CALCULATOR PROGRAM

Enter first number:

Enter second number:

Result is:

index.html

```
<!DOCTYPE html>
<html>

<head>

    <title>Arithmetic Operations</title>
    <script src="cal.js" type="text/javascript"></script>

</head>

<body>
    <h2>MINI CALCULATOR PROGRAM</h2>
    <b>Enter first number: </b><input type="text" size="10"
    id="t1"><br><br>
    <b>Enter second number: </b><input type="text" size="10"
    id="t2"><br><br>
    <b>Result is: </b><input type="text" size="10" id="res">
    <br><br>
    <input type="button" value="Addition" onclick="add()">
    <input type="button" value="Subtraction" onclick="sub()"
    >
    <input type="button" value="Multiplication" onclick="mul
    ()">
    <input type="button" value="Division" onclick="div()">

</body>

</html>
```

cal.js

```
var res;

function add(){
    var num1 =parseInt(document.getElementById("t1").value);
    var num2 =parseInt(document.getElementById("t2").value);
    res=num1+num2;
    document.getElementById("res").value = res;
}

function sub(){
    var num1 =parseInt(document.getElementById("t1").value);
    var num2 =parseInt(document.getElementById("t2").value);
    res=num1-num2;
    document.getElementById("res").value = res;
}

function mul(){
    var num1 =parseInt(document.getElementById("t1").value);
    var num2 =parseInt(document.getElementById("t2").value);
    res=num1*num2;
    document.getElementById("res").value = res;
}

function div(){
    var num1 =parseInt(document.getElementById("t1").value);
    var num2 =parseInt(document.getElementById("t2").value);
    res=num1/num2;
    document.getElementById("res").value = res;
}
```