



WHAT IS HTML?

HTML is a language for describing Web pages.

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



What is HTML?



Known as HyperText Markup Language, HTML is a set of pre-defined elements or tags that tell a browser what content to display and how to display that content

Interview Rio Carraff

Vevo revolutionary

Universal's former mobile chief is leading the music industry's fight to shake up online video. He reveals his frustration with MTV, and says why no one need own music if his site succeeds. Interview by Mark Sweney

Rio Carraff's success, perhaps only shared by a few other men in the music industry, is a testament to his vision and his ability to lead. He is the former chief executive of Universal's mobile division, who has been instrumental in the success of the Vevo channel. He is also the man who has been instrumental in the success of the Vevo channel. He is also the man who has been instrumental in the success of the Vevo channel.



Carraff's success, perhaps only shared by a few other men in the music industry, is a testament to his vision and his ability to lead.

We are about access; it is the only scalable model for the music industry; the question is, how do you do that and make money?

From music, Carraff's success is a testament to his vision and his ability to lead. He is the former chief executive of Universal's mobile division, who has been instrumental in the success of the Vevo channel. He is also the man who has been instrumental in the success of the Vevo channel. He is also the man who has been instrumental in the success of the Vevo channel.

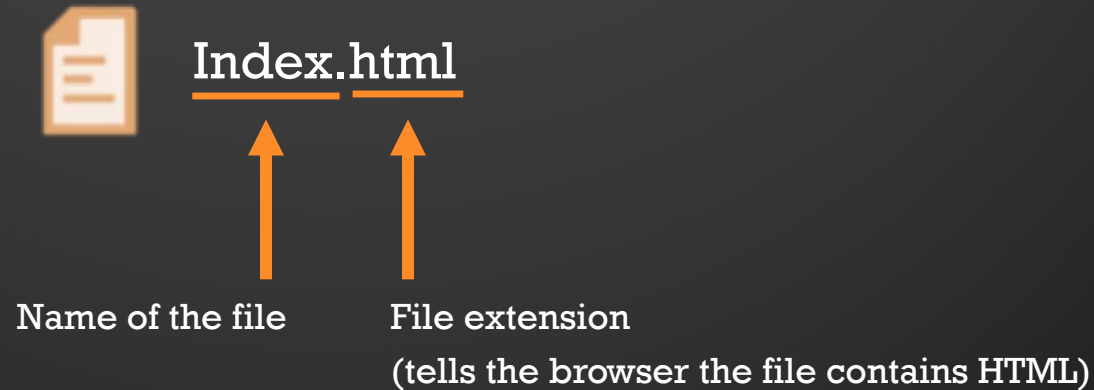
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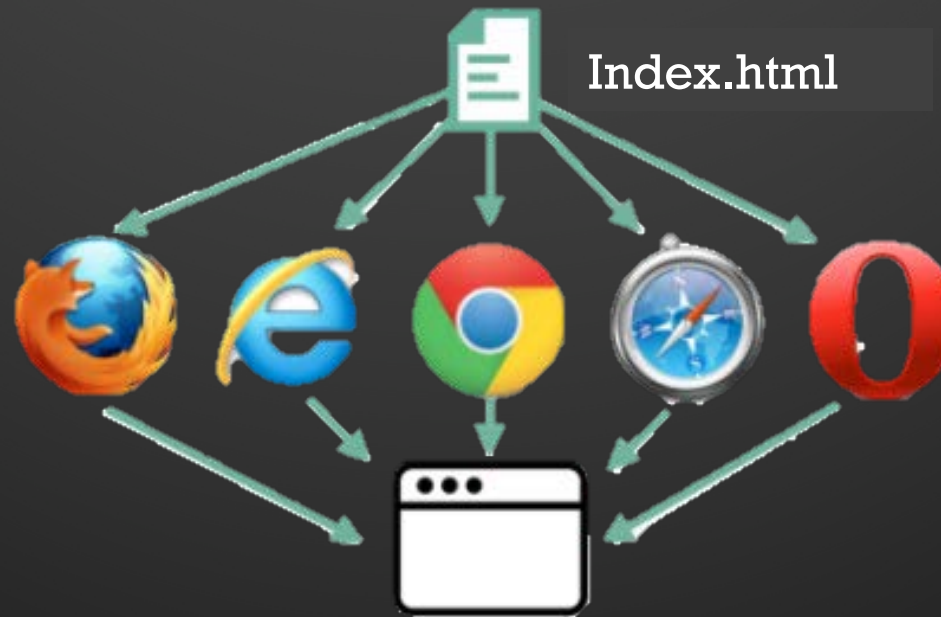
HOW TO WRITE HTML FILES?

Just like most programming languages, we type a bunch of HTML into file so we can send it around.



HOW TO DISPLAY HTML FILES?

Web Browsers are basically “HTML Readers.”



TEXT EDITORS



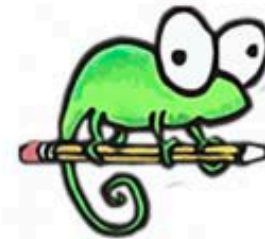
Brackets



Visual Studio®



ATOM



Notepad++

What Does That Mean?



Blank
Text File

```
<!DOCTYPE html>
<html>
  <head>
    <title>Welcome To My Site</title>
  </head>
  <body>
    <p>Hello World!</p>
  </body>
</html>
```

Add
HTML Tags

Hello World!

Display in
Browser

STRUCTURE OF AN HTML PAGE

```
<!DOCTYPE html>
```

```
<HTML>
```

```
<HEAD>
```

```
</HEAD>
```

```
<BODY>
```

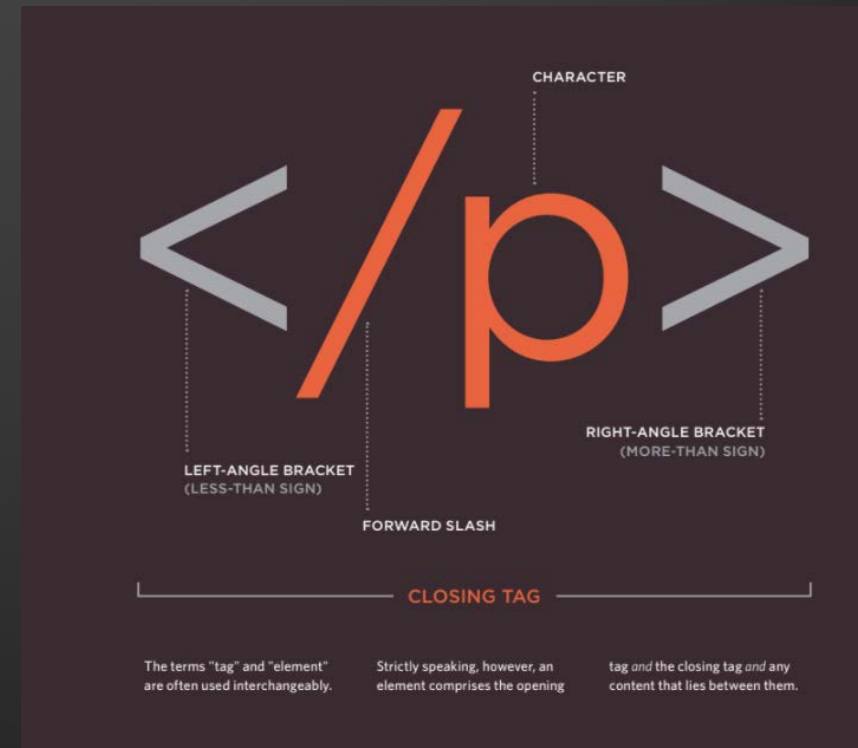
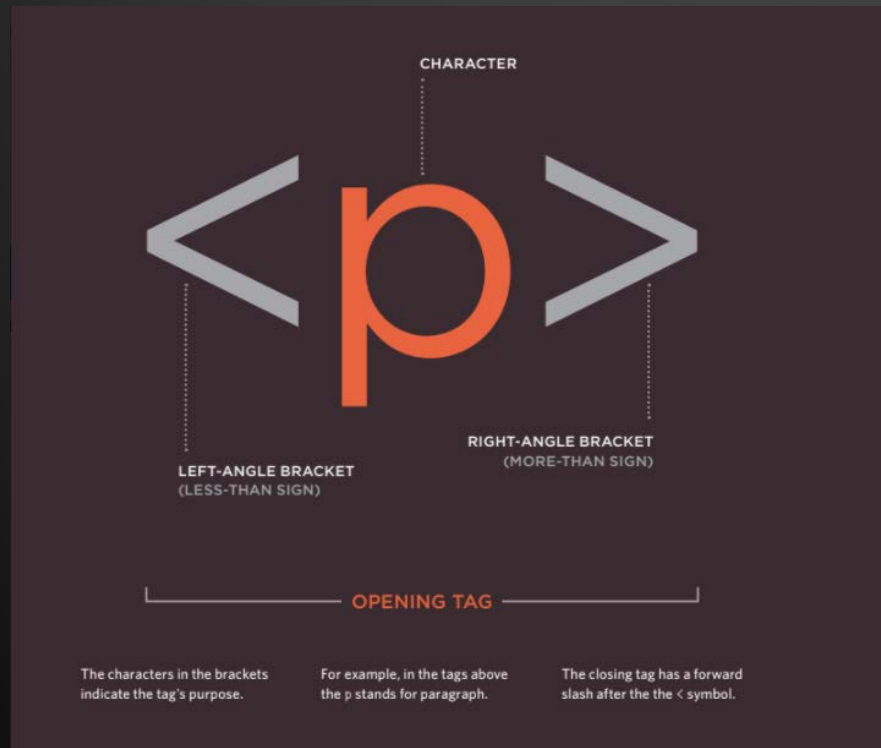
CONTENT

```
</BODY>
```

```
</HTML>
```

WHAT ARE TAGS?

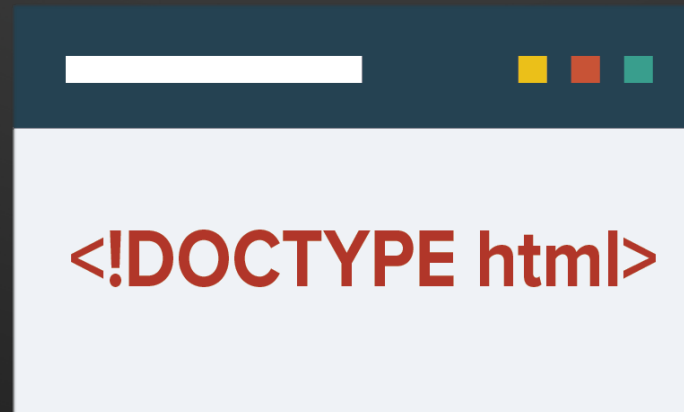
Tags act like containers. They tell you something about the information that lies between their opening and closing tags.



DOCTYPE DECLARATION

It is an instruction to the web browser about what version of HTML the page is written in.

- Doctype in HTML must be at the very top of the document, before all elements.
- Doctype declaration is not case-sensitive.



MY FIRST HTML PROGRAM

```
<!DOCTYPE html>

<html>
  <head>
    <title>This is my title</title>
  </head>

  <body>
    This is my first HTML program
  </body>

</html>
```

HTML HEADINGS

- HTML headings are defined with the `<h1>` to `<h6>` tags.
- `<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

HTML HEADINGS

```
<!DOCTYPE html>

<html>
  <head>
    <title>This is my title</title>
  </head>

  <body>
    <h1>This is a Main heading</h1>
    <h2>This is a Level 2 heading</h2>
    <h3>This is a Level 3 heading</h3>
    <h4>This is a Level 4 heading</h4>
    <h5>This is a Level 5 heading</h5>
    <h6>This is a Level 6 heading</h6>
  </body>
</html>
```

This is a Main heading

This is a Level 2 heading

This is a Level 3 heading

This is a Level 4 heading

This is a Level 5 heading

This is a Level 6 heading

HTML PARAGRAPHS

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

```
<!DOCTYPE html>

<html>
  <head>
    <title>This is my title</title>
  </head>

  <body>
    <p>A paragraph consists of one or more sentences that form a
    self-contained unit of discourse. The start of a paragraph is
    indicated by a new line.</p>
    <p>Text is easier to understand when it is split up into units
    of text. For example, a book may have chapters. Chapters can
    have subheadings. Under each heading there will be one or more
    paragraphs.</p>
  </body>
</html>
```

A paragraph consists of one or more sentences that form a self-contained unit of discourse. The start of a paragraph is indicated by a new line.

Text is easier to understand when it is split up into units of text. For example, a book may have chapters. Chapters can have subheadings. Under each heading there will be one or more paragraphs.

LINE BREAKS & HORIZONTAL RULES

To add a line break inside the middle of a paragraph, use the line break tag `
`

To create a break between themes, add a horizontal rule between sections using the `<hr />` tag.

```
<body>  
  <p>My name is Mike <br /> My age is 25 <br /> My job is  
  Automation Tester</p>  
  <hr />  
  <p>MY name is John <br /> My age is 30 <br /> My job is Developer  
</p>  
</body>
```

My name is Mike
My age is 25
My job is Automation Tester

MY name is John
My age is 30
My job is Developer

HTML ATTRIBUTES

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.

The diagram illustrates the structure of an HTML attribute within a code snippet. The code is `<p lang="en-us">Paragraph in English</p>`. Above the opening tag, the text "ATTRIBUTE NAME" is written in green, with a bracket pointing to the `lang` attribute. Below the opening tag, the text "ATTRIBUTE VALUE" is written in orange, with a bracket pointing to the value `"en-us"`.

```
ATTRIBUTE  
NAME  
└──  
<p lang="en-us">Paragraph in English</p>  
└──  
ATTRIBUTE  
VALUE
```

HTML COMMENTING

HTML comments are visible to anyone that views the page source code, but are not rendered when the HTML document is rendered by a browser.

`<!-- Comment -->`

```
<body>  
  <p>My name is Mike</p>  
  <!--This is a comment line-->  
  <p>My age is 35</p>  
</body>
```

My name is Mike

My age is 35

HTML IMAGES

To add an image into the page you need to use an `` element. This is an empty element. This is an empty element (which means there is no closing tag). It must carry the following two attributes:

src : This tells the browser where it can find the image file.

alt : This provides a text description of the image which describes the image if you can not see it.

```
<body>  
  <p>This is an image</p>  
    
</body>
```

This is an image



HTML LISTS

- **Ordered list** 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.
- **Unordered lists** are lists that begin with a bullet point
- **Definition lists** are made up a set of terms along with the definitions for each 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.

```
<body>
<font size="20">
  <ol>
    <li>Orange</li>
    <li>Apple</li>
    <li>Banana</li>
  </ol>
</font>
</body>
```

1. Orange
2. Apple
3. Banana

HTML 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

WRITING LINKS

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.



Diagram illustrating the structure of an HTML link tag:

```
<a href="http://www.imdb.com">IMDB</a>
```

The diagram uses brackets to identify the components of the tag:

- THIS IS THE PAGE THE LINK TAKES YOU TO**: Points to the href attribute value `http://www.imdb.com`.
- THIS IS THE TEXT THE USER CLICKS ON**: Points to the link text `IMDB`.
- OPENING LINK TAG**: Points to the opening tag ``.
- CLOSING LINK TAG**: Points to the closing tag ``.

LINKING TO OTHER SITES

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.

Users can click on anything that appears between the opening `<a>` tag and the closing `` tag and will be taken to the page specified in the href attribute.

```
<body>
<font size="20">
  <p>Car Reviews:
    <ul>
      <li><a href="https://www.kbb.com/">KBB</a></li>
      <li><a href="https://www.edmunds.com/">EDMUNS</a></li>
      <li><a href="https://www.carmax.com/">CARMAX</a></li>
    </ul>
  </font>
</body>
```

Car Reviews:

- KBB
- EDMUNS
- CARMAX

HTML TABLES

A table represents information in a grid format. Examples of tables include financial reports, TV schedules, and sports results.

REUTERS

EDITION:
U.S.

News & Markets

Sectors & Industries

Analysis & Opinion

Register Sign In

f t in s y

Search News & Quotes

SEARCH

Commodities

Related Topics: [MARKETS](#) [BUSINESS](#) [ECONOMY](#) [GREEN BUSINESS](#) [HOT STOCKS](#) [MORE TOPICS](#)

THOMSON REUTERS/JEFFERIES CRB INDEX(TR/J CRB)

▼ 359.42

Change
-3.36

Open
360.92

High
361.19

Low
357.99

Times
04/18 14:58

Data as of 3:45pm EDT (Delayed at least 20 minutes)

COMMODITY FUTURES

Energy: [Oil](#), [Natural Gas](#), [Electricity](#)

Metals: [Base Metals](#), [Precious Metals](#)

Grains: [Corn/Maize](#), [Wheat](#), [Barley](#), [Rice](#)

Oilseeds: [Soybeans](#), [Rapeseed](#), [Palm Oil](#)

Softs: [Sugar](#), [Coffee](#), [Cocoa](#), [Rubber](#), [Citrus](#), [Cotton](#)

Livestock: [Lean Hogs](#), [Live Cattle](#)

THOMSON REUTERS EQUAL WEIGHT CONTINUOUS COMMODITIES INDEX (CCI)

Position of price in relation to its moving average. This chart is devised to identify cyclical turns. CCI works well in ranging markets and typically fluctuates between + 100 and - 100.

Commodity	Currency	Last	Change	% Change	Trade Date/Time
Hogs, Lean Pit CME Jun11	USD	101.28	+0.20	+0.20%	04/18 14:13
Oil, Heating New York No. 2 NYMEX May11	USD	3.19	-0.04	-1.18%	04/18 15:14
Crude Oil Light Sweet May11	USD	107.21	-2.45	-2.29%	04/18 15:14

MARKETS

U.S.

EUROPE

ASIA

SECTORS

SPONSORED BY

Trade forex with CitiL

Market Indices

All Indices

Enter company name or Symbol

SEARCH

DOW

12,189.14

▼ -152.69

-1.24%

S&P 500

1,305.75

▼ -13.93

-1.06%

NASDAQ

2,731.64

▼ -33.01

-1.19%

TR US INDEX

119.44

▼ -1.47

-1.22%

Currencies

All Currencies

EUR/USD

1.4234

-1.35%

GBP/USD

1.6262

-0.40%

USD/JPY

82.600

-0.63%

Commodities

All Commodities

GOLD

1,496.20

+10.20

+0.68%

BASIC TABLE STRUCTURE

The `<table>` element is used to create a table. The contents of the table are written out row by row.

Start of each row is indicated using the opening `<tr>` tag. (The tr stands for table row).

Each cell of a table is represented using a `<td>` element. (The td stands for table data)

```
<body>
  <table>
    <tr>
      <td>15</td>
      <td>10</td>
      <td>30</td>
    </tr>
    <tr>
      <td>45</td>
      <td>60</td>
      <td>45</td>
    </tr>
    <tr>
      <td>60</td>
      <td>90</td>
      <td>100</td>
    </tr>
  </body>
```

15	10	30
45	60	45
60	90	100

SUMMARY OF TABLES

- The `<table>` element is used to add tables to a web page
- A table is drawn out row by row. Each row is created with the `<tr>` element.
- Inside each row there are a number of cells represented by the `<td>` element(or `<th>` if it is a header).
- You can make cells of a table span more than one row or column using the `rowspan` and `colspan` attributes.

GROUPING TEXT & ELEMENTS IN A BLOCK

The `<div>` element allows you to group a set of elements together in one block-level box.

```
<body>
  <font size="10">
    <div>
      <h3>This is first group</h3>
      <ul><li>Java</li>
        <li>JavaScript</li>
        <li>Ruby</li></ul>
    </div>
    <div>
      <h3>This is second group</h3>
      <ul><li>Java</li>
        <li>JavaScript</li>
        <li>Ruby</li></ul>
    </div>
  </font>
</body>
```

This is first group

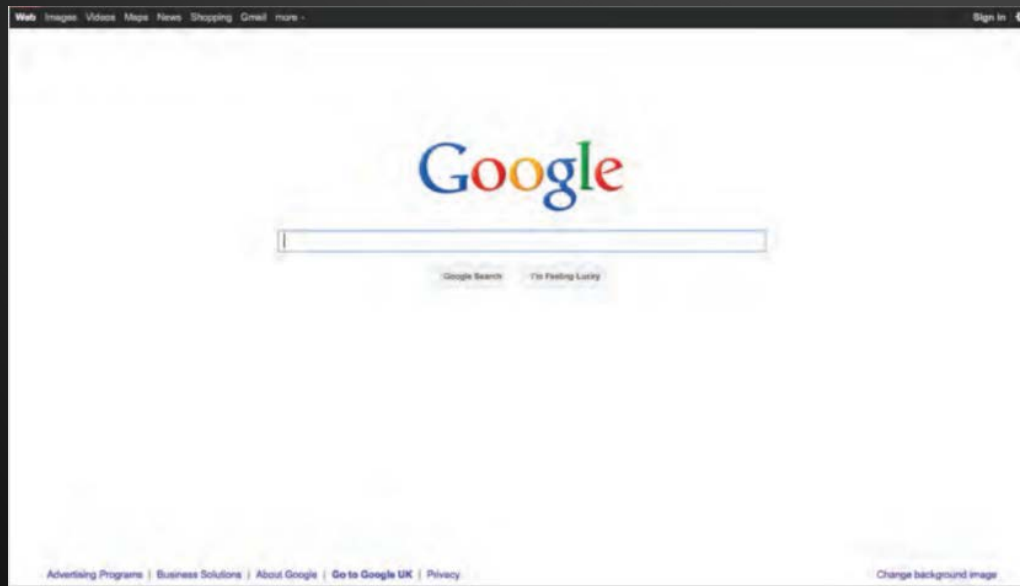
- Java
- JavaScript
- Ruby

This is second group

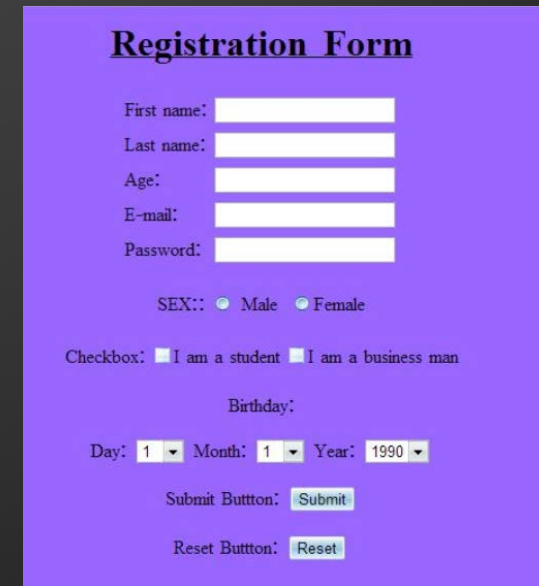
- Java
- JavaScript
- Ruby

HTML FORMS

Form has referred to a printed document that contains spaces for you to fill in information.



A screenshot of the Google homepage. At the top, there is a navigation bar with links: Web, Images, Videos, Maps, News, Shopping, Gmail, and more. On the right side of the navigation bar is a 'Sign in' link. The main content area features the Google logo in its characteristic multi-colored font. Below the logo is a large, empty search bar. Underneath the search bar are two buttons: 'Google Search' and 'I'm Feeling Lucky'. At the bottom of the page, there is a footer with links for Advertising Programs, Business Solutions, About Google, Go to Google UK, and Privacy. On the far right of the footer is a link to 'Change background image'.



A screenshot of a registration form titled 'Registration Form'. The form is set against a solid blue background. It contains several input fields: 'First name:', 'Last name:', 'Age:', 'E-mail:', and 'Password:'. Below these is a 'SEX:' section with radio buttons for 'Male' and 'Female'. There is a 'Checkbox:' section with two options: 'I am a student' and 'I am a business man'. The 'Birthday:' section includes three dropdown menus for 'Day:', 'Month:', and 'Year:', with values '1', '1', and '1990' respectively. At the bottom, there are two buttons: 'Submit Button: Submit' and 'Reset Button: Reset'.

FORM CONTROLS

There are several types of form controls that you can use to collect information from visitors to your site.

ADDING TEXT:

Text input (single-line)

Used for a single line of text such as email addresses and names.

Password input

Like a single line text box but it masks the characters entered.

Text area (multi-line)

For longer areas of text, such as messages and comments.

MAKING CHOICES:

Radio buttons

For use when a user must select one of a number of options.

☒ Rock ☐ Pop ☐ Jazz

Checkboxes

When a user can select and unselect one or more options.

☒ iTunes ☐ Last.fm ☐ Spotify

Drop-down boxes

When a user must pick one of a number of options from a list.

SUBMITTING FORMS:

Submit buttons

To submit data from your form to another web page.

Image buttons

Similar to submit buttons but they allow you to use an image.

UPLOADING FILES:

File upload

Allows users to upload files (e.g. images) to a website.

TEXT INPUT

<input>

The <input> element is used to create several different form controls. The value of the type attribute determines what kind of input they will be creating

type="text"

When the type attribute has a value of text, it creates a single line text input.

name

When users enter information into a form, the server needs to know which form control each piece of data was entered into.

```
<form>
  <p>Username:
    <input type="text" name="username" size="15" maxlength="30"/>
  </p>
</form>
```

Username:

RADIO BUTTON

type="radio"

Radio buttons allow users to pick just one of a number of options

name

The name attribute is sent to the server with the value of the option the user selects.

value

The value attribute indicates the value that is sent to the server for the selected option. The value of each of the buttons in a group should be different.

checked

The checked attribute can be used to indicate which value should be selected when the page loads. The value of this attribute is checked.

RADIO BUTTON

```
<form>
  <p>Please select your favorite food:
  <br/>
  <input type="radio" name="food" value="burger"
    checked="checked"/>Burger
  <input type="radio" name="food" value="Kabab"/>Kabab
  <input type="radio" name="food" value="Salad"/>Salad
  </p>
</form>
```

Please select your favorite food:
☒ Burger ☐ Kabab ☐ Salad

CHECKBOX

type="checkbox"

Checkboxes allow users to select(and unselect) one or more options in answer to a question.

name

The name attribute is sent to the server with the value of the option(s) the user selects.

value

The value attribute indicates the value sent to the server if this checkbox is checked.

checked

The checked attribute indicates that this box should be checked when the page loads. If used, its value should be checked.

CHECKBOX

```
<form>
  <p>Please select your favorite car:
  <br/>
  <input type="checkbox" name="car" value="honda" checked="checked">Honda</br>
  <input type="checkbox" name="car" value="nissan">Nissan</br>
  <input type="checkbox" name="car" value="toyota">Toyota</br>
  </p>
</form>
```

Please select your favorite car:

- ☒ Honda
- ☐ Nissan
- ☐ Toyota

DROP DOWN LIST BOX

`<select>`

A drop down list box(also known as a select box) allows users to select one option from a drop down list. The `<select>` element is used to create a drop down list box.

`name`

The name attribute indicates the name of the form control being sent to the server, along with the value the user selected.

`<option>`

The `<option>` element is used to specify the options that the user can select from.

`value`

The `<option>` element uses the value attribute to indicate the value that is sent to the server along with the name of the control if this option is selected.

`selected`

The selected attribute can be used to indicate the option that should be selected when the page loads.

DROP DOWN LIST BOX

```
<form>
  <p>Please select your favorite car:
  <br/>
  <select name="cars">
    <option value="honda">Honda</option>
    <option value="nissan" selected="selected">Nissan</option>
    <option value="ford">Ford</option>
  </select>
</p>
</form>
```

Please select your favorite car:

Nissan ▼

SUBMIT BUTTON

`type="submit"`

The submit button is used to send a form to the server

`name`

It can use a name attribute but it does not need to have one

`value`

The value attribute is used to control the text that appears on a button.

SUBMIT BUTTON

```
<form>  
  <p>Subscribe to our email list:</p>  
  <input type="text" name="email"/>  
  <input type="submit" name="subscribe" value="Subscribe"/>  
</form>
```

Subscribe to our email list:

SUMMARY FORMS

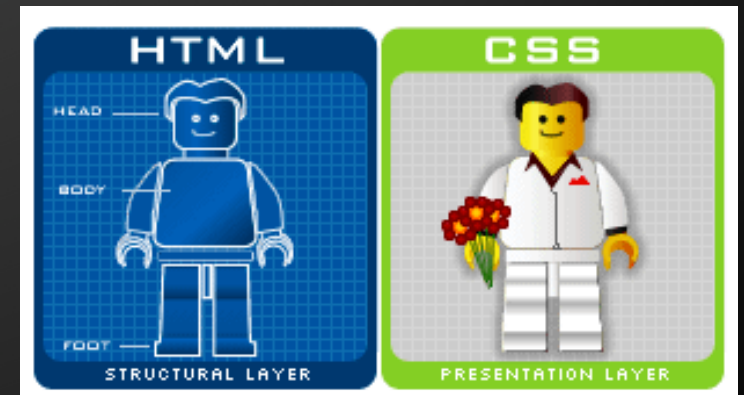
- Whenever you want to collect information from visitors you will need a form, which lives inside a `<form>` element.
- Information from a form is sent in name/value pairs.
- Each form control is given a name, and the text the user types in or the values of the options they select are sent to the server.
- HTML5 introduces new form elements which make it easier for visitors to fill in forms.



WHAT IS CSS?

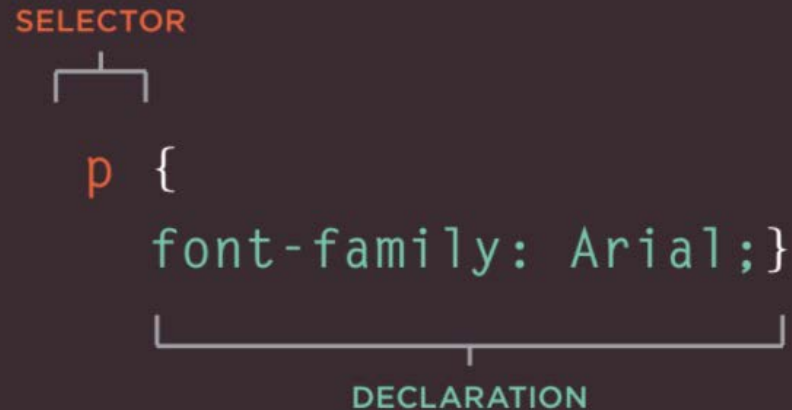
CSS allows you to create rules that specify how the content of an element should appear.

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in media.
- CSS saves a lot of work. It can control the layout of multiple web pages all at once.
- External stylesheets are stored in CSS files.



CSS ASSOCIATES STYLE RULES WITH HTML ELEMENTS

CSS works by associating rules with HTML elements. These rules govern how the content of specified elements should be displayed. A CSS rule contains two parts: a **selector** and a **declaration**.



A diagram illustrating the structure of a CSS rule. The word "SELECTOR" is written in orange above a bracket that spans the "p" in the code snippet. The word "DECLARATION" is written in green below a bracket that spans the "font-family: Arial;" in the code snippet. The code snippet is: `p { font-family: Arial; }`

This rule indicates that all `<p>` elements should be shown in the Arial typeface.

Selectors indicate which element the rule applies to.

Declarations indicate how the elements referred to in the selector should be styled.

CSS PROPERTIES AFFECT HOW ELEMENTS ARE DISPLAYED

CSS declarations sit inside curly brackets and each is made up two parts: a **property** and a **value**, separated by a colon. Several properties can be specified in one declarations, each separated by a semi-colon.

```
h1, h2, h3 {  
    font-family: Arial;  
    color: yellow;  
}
```



The diagram illustrates the components of a CSS declaration. In the code snippet, 'font-family' is the property and 'Arial' is the value. A bracket under 'font-family' is labeled 'PROPERTY' and a bracket under 'Arial' is labeled 'VALUE'.

This rule indicates that all <h1>, <h2> and <h3> elements should be shown in the Arial typeface, in a yellow color.

Properties indicate the aspects of the element you want to change.

Values specify the settings you want to use for the chosen properties.

USING INTERNAL CSS

<style>

CSS rules can be included within an HTML page by placing them inside a <style> element, which usually sits inside the <head> element of the page.

The <style> element should use the type attribute to indicate that the styles are specified in CSS. The value should be **text/css**.

```
<html>
  <head>
    <title>Using External CSS</title>
    <style type="text/css">
      body{
        font-family:arial;
        background-color: rgb(185,179,175);}
      h1{
        color: rgb(255,255,255);}
    </style>
  </head>
  <body>
    <h1>Potatoes</h1>
    <p>There are dozens of different potato varieties. They are usually described as early, second early and maincrop.</p>
  </body>
</html>
```

Potatoes

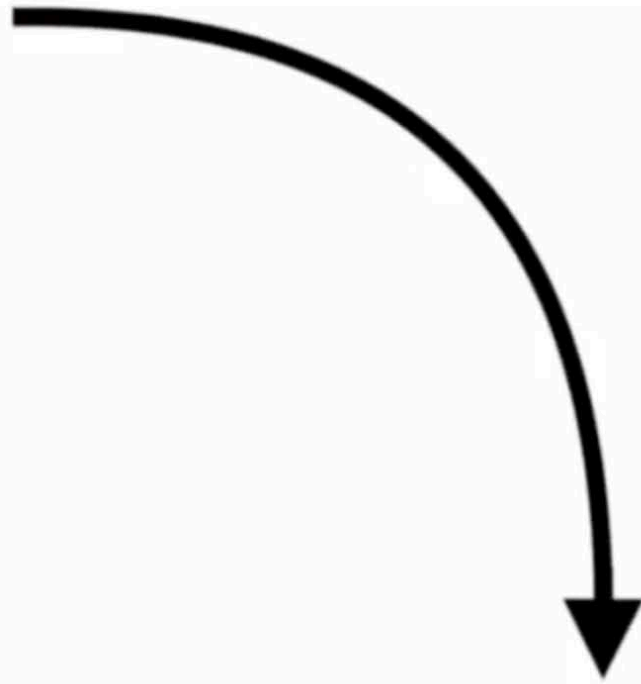
There are dozens of different potato varieties. They are usually described as early, second early and maincrop potatoes.

<html>



Parent

<body>



<form>

<label>

<input>

<label>

<input>

siblings

The End