HTML NOTES 2018





Introduction

- Html stands for Hyper Text Markup language, It's a programming language for the web, HTML is used to develop WebPages & Websites.
- HTML has been used to create website in the modern industry.
- These slides provides a Guide to HTML.
- No previous knowledge required to learn HTML. It Simple and Easy to learn.



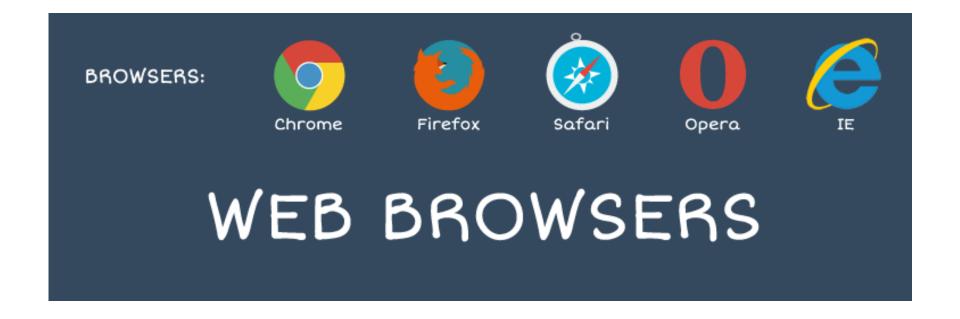
What is a Website

- A collection of documents known as WebPages (or pages) that contain information;

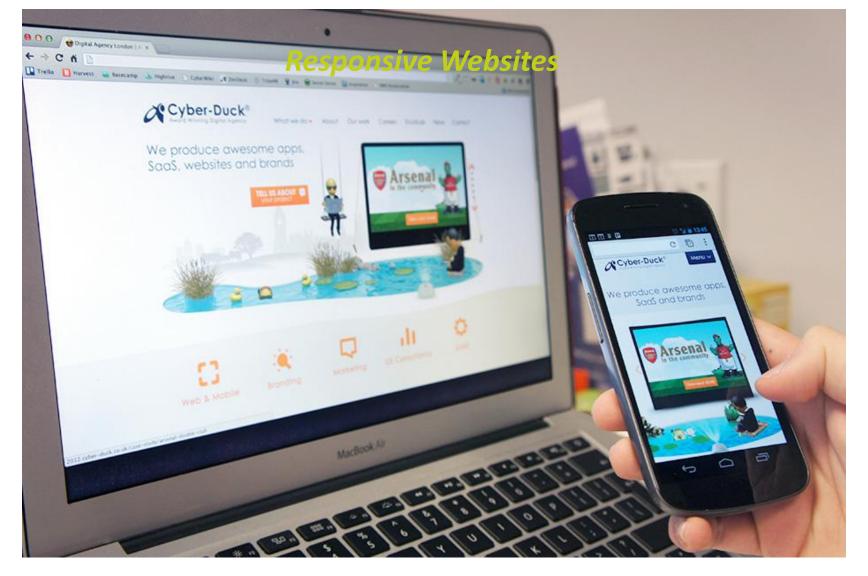
 ¤ Images, word, videos.
- What is webpage? "A document or an information resource that can be accessed through web browser
- A web browser is a computer program that is used to access a webpage. Next are major browsers



Major Browsers

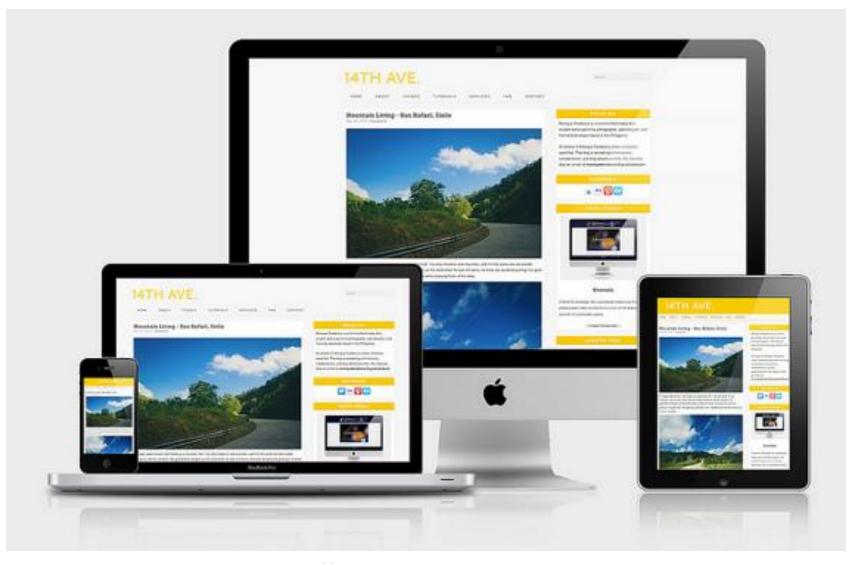






In this class, you will learn responsive web design, responsive design means the website looks different on small/medium/big screen





Responsive websites displays differently depending on the screen you're using.



HTML!

- We are going to Learn HTML- a programming language for the web. With this, you will equipped create desktop and mobile websites easily.
- Tools for Development: In order to program HTML our computers need to have an Editor like Sublime Text 3: Download here if it's not installed already. http://www.sublimetext.com/3
- You can Also use Atom Editor. Download here https://atom.io/



Why HTML Editors

 An HTML editor, specifically, is a tool that helps you write your program.

 While you can technically type your program into any word processor.

 An HTML editor is much better, gives you the tools to make sure that your program is written well...or at least written properly... and easy to understand.



What is HTML

- HTML stands for Hyper Text Markup Language. Let's see what is Hyper Text and what is Markup Language?
- Hyper Text: Hyper Text simply means "Text within Text". A text
 has a link within it.
- Markup language: A markup language is a programming language that is used make text more interactive and dynamic. Markup language uses tags. You can use the tags to create paragraphs, headings, tables, listings etc
- A HTML document is made of many HTML tags and each HTML tag contains different content.



HTML Tags & Elements

• Although the basics of HTML are plain text, we need a bit more to make it a valid HTML document.

Tags

• The basic structure of an HTML document includes **tags**, which surround content and apply meaning to it.

NB: When a Tag is opened &
closed i.e is known as
a HTML Element.







Basic html Syntax

```
<!DOCTYPE html>
<html>
   <head>
          <title>Title of the document</title>
    </head>
   <body>
      That's all I need to create my first HTML5 page
   </body>
</html>
```

Save it as: index.html

Important: Create a folder to place your files

What is HTML

Example of a simple HTML document

```
<!DOCTYPE>
<html>
<body>
    <h1>Write Your First Heading</h1>
    Write Your First Paragraph.
</body>
</html>
```



HTML Introduction

- These slides tutorial provides basic and advanced concepts of html.
- This HTML tutorial is developed for beginners and professionals.
 - The major points of HTML are given below:
 - HTML stands for Hyper Text Markup Language.
 - HTML is used to create web pages.
 - HTML is widely used language on the web.
 - We can create static website by HTML only.



HTML vs CSS

- This HTML Beginner's Guide assumes that you have no previous knowledge of HTML or CSS(Cascading Style Sheet).
- The thing to keep in mind is that HTML and CSS are all about separating the.
 - Creating Content (HTML) and the
 - Presentation or Styling(CSS)
 - : We start with HTML



HTML Introduction

- HTML Example with HTML Editor
- In this tutorial, you will get a lot of HTML examples, at least one example for each topic.

```
<!DOCTYPE>
<html>
<body>
    <h1>Write Your First Heading</h1>
    Write Your First Paragraph.
</body>
</html>
```



HTML Introduction

HTML Doctype

- The doctype declaration differs between HTML versions. The HTML 5 doctype declaration is given below.
 - <!DOCTYPE html>
- Let's see an example of HTML document with doctype declaration.
- The doctype is the first line in your program, it tells the browsers the version/type of HTML you're using, In this case HTML 5



HTML Doctype

This is the HTML 5 Doctype

```
<!DOCTYFE>
<html>
<body>
    <h1>Write Your First Heading</h1>
    Write Your First Paragraph.
</body>
</html>
```



HTML

- Description of HTML Example
- **DOCTYPE:** It defines the document type.
- html: Text between html tag describes the web document.
- body: Text between body tag describes the body content of the page that is visible to the end user.
- h1: Text between h1 tag describes the heading of the webpage.
- **p**: Text between p tag describes the paragraph of the webpage.



Brief History of HTML

- In the late 1980's, A physicist, Tim Berners-Lee who was a contractor at CERN, proposed a system for CERN researchers.
- In 1989, he wrote a memo proposing an internet based hypertext system.
- Tim Berners-Lee is known as father of HTML.
- The first available description of HTML was a document called "HTML Tags" proposed by Tim in late 1991.



Features of HTML

- It is a very **easy and simple** language. It can be easily understood and modified.
- It is very easy to make **effective presentation** with HTML because it has a lot of *formatting tags*.
- It is a **markup language** so it provides a flexible way to design web pages along with the text.
- It facilitates programmers to add link on the web pages (by html anchor tag), so it enhances the interest of browsing of the user.



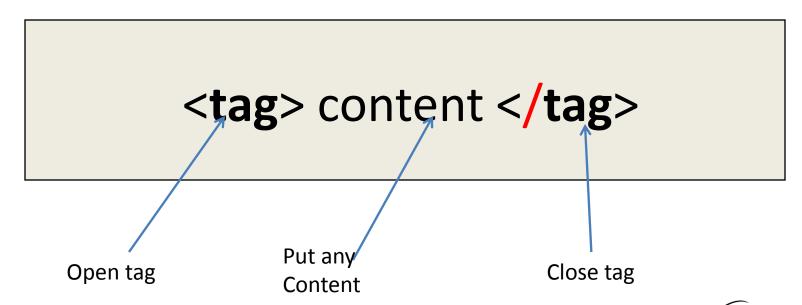
HTML Tags

- HTML tags contain three main parts: opening tag, content and closing tag.
- But some HTML tags are unclosed tags.
- When a web browser reads an HTML document, browser reads it from top to bottom and left to right.
- HTML tags are used to create HTML documents and render their properties - Meaning.
- Each HTML tags have different properties Meaning.



Syntax

- Syntax are rules that are defined by HTML and MUST be followed.
- Below are the Tags rule:





HTML Tags

- To get back to the point, <html> is the opening tag that kicks things off.
- It tells the browser that everything between <html> and the </html> closing tag is an HTML document.
- The stuff between <body> and </body> is the main content of the document that will appear in the browser window.
- When a Tag is opened & closed i.e Any Content is known as an Element.
- More on : http://www.w3schools.com/html/html elements.asp



Closing tags

- ➤ The </body> and </html> close their respective tags.
- ALL HTML tags should be closed.
- Although older versions of HTML lazily allowed some tags not to be closed.
- Latest standards require all tags to be closed.
- This is a good habit to get into anyway.
- Some Tags which do not soround content, close themselves i.e
<hr/>, <input />



Understanding Attributes

- > Tags can also have **attributes**, which are extra bits of information.
- Attributes appear inside the opening tag and their value is always inside quotation marks.
- ➤ They look something like;
 - <tag attribute="value">Margarine</tag>.
- We will come across tags with attributes later.





HTML BASIC TAGS



<title> Tag

- HTML <title> tag is used to provide a title name for your webpage.
- It is necessary for **Search Engine Optimization (SEO)**.
- The HTML title tag must be used inside the <head> tag.
- The title of the page is displayed on the title bar of the browser.
- Let's see the example of HTML title tag.



<title> tag

```
<!DOCTYPE>
<html>
  <head>
     <title>First web page.</title>
  </head>
<body>
 <h1>Write Your First Heading</h1>
 Write Your First Paragraph.
NOTE: ALL OTHER HTML TAGS MUST BE INSIDE HERE
                                                    <BODY>
TAGS
</body>
</html>
```

<title> tag with the page title The <head> MUST be put



HTML Tag Examples

- Note: HTML Tags are always written in lowercase letters.
- The basic HTML tags are given below:
 - Paragraph Tag
 - <h2> Heading Tag </h2>
 - Bold Tag
 - <i> Italic Tag </i>
 - <u> Underline Tag</u>



Unclosed HTML Tags

- Some HTML tags are not closed, for example br and hr.

• <hr> Tag: hr stands for Horizontal Rule. This tag is used to put a line across the webpage.



<!-- Comments -->

- A comment is a way for you as the web page developer to control what lines of code are to be ignored by the web browser.
- Enable writing notes or reminders to yourself inside your actual HTML documents.
- Example comment;
 - <!—your comment here -->



HTML Formatting

- HTML Formatting is a process of formatting text for better look and feel.
- There are many formatting tags in HTML.
- These tags are used to make text bold, italicized, or underlined.
- There are almost 12 options available that make how text appears in HTML.



HTML Formatting

- Here, Lets learn 5 of **HTML** formatting tags.
- 1) Bold Text
- If you write anything within **......** element, is shown in bold letters.
- 2) Italic Text
- If you write anything within **<i>......</i>** element, is shown in italic letters.
- 3) HTML Marked formatting
- If you want to mark or highlight a text, you should write the content within <mark>......</mark>.
- 4) Underlined Text
- If you write anything within <u>......</u> element, is shown in underlined text.
- 5) Strike Text
- Anything written within **<strike>.....</strike>** element is displayed with strikethrough. It is a thin line which cross the statement.





HTML
HEADING
&
PARAGRAPH



HTML Heading

- A HTML heading or HTML <h> tag can be defined as a title or a subtitle which you want to display on the webpage.
- When you place the text within the heading tags <h1>.....</h1>,
 it is displayed on the browser in the bold format and size of the text
 depends on the number of heading.
- There are six different HTML headings which are defined with the <h1> to <h6> tags.
- <h1> is the largest heading tag and h6 is the smallest one. So h1 is used for most important heading and h6 is used for least important.



HTML Heading

```
<!DOCTYPE>
<html>
  <head>
     <title>First web page.</title>
 </head>
<body>
    <h1>Heading no. 1</h1>
    <h2>Heading no. 2</h2>
    <h3>Heading no. 3</h3>
    <h4>Heading no. 4</h4>
    <h5>Heading no. 5</h5>
    <h6>Heading no. 6</h6>
<body>
<html>
```

OUTPUT Heading no. 2 Heading no. 3 Heading no. 4 Heading no. 5

Heading no. 6



HTML Paragraph

- HTML paragraph or HTML tag is used to define a paragraph in a webpage.
- Let's take a simple example to see how it work.
- It is a notable point that a browser itself add an empty line before and after a paragraph.
 - This is first paragraph.
 - This is second paragraph.
 - This is third paragraph.



HTML Paragraph

```
<!DOCTYPE>
<html>
  <head>
    <title>First web page.</title>
 </head>
<body>
 This is first paragraph.
 This is second paragraph.
 This is third paragraph.
<body>
<html>
```

OUTPUT

This is first paragraph.
This is second paragraph.
This is third paragraph.



HTML <marquee>

<marquee> tag create a scrolling TEXT in your page



HTML Color - bgcolor

- The bgcolor attribute is used to control the background of an HTML element.
- Bgcolor can be placed within several of the HTML tags.
- However, I suggest you only use it for your page's main background (<body>) and in tables.



HTML Color - bgcolor

- Here is how to change the background of your web page.
- Just use the bgcolor attribute in the <body> tag and you are golden.



HTML Color Codes

- Red- <u>#FF0000</u>
- White #FFFFFF
- Turquoise #00FFFF
- Light Grey #C0C0C0
- Light Blue #0000FF
- Dark Grey #808080
- Dark Blue #0000A0
- Black #000000

- Light Purple #FF0080
- Orange #FF8040
- Yellow #FFFF00
- Burgundy <u>#800000</u>
- Pastel Green #00FF00
- Pink #FF00FF
- Grass Green #408080

Check out below link for more color code

https://www.google.com/design/spec/style/color.html#color-color-palette





HTML LINKS & IMAGES



HTML Links

- So far you've been making a stand-alone web page, which is all very well and nice.
- But what makes the internet so special is that it all links together.
- The 'H' and 'T' in 'HTML' stand for 'hypertext', which basically means a system of linked text



HTML Links

```
<h2>Lets go facebook</h2>
<a href="http://www.facebook.com">facebook</a>
```

- An anchor tag (a) is used to define a link.
- But you also need to add something to the anchor tag the destination of the link. i.e below links to facebook.



HTML Links

- So if, for example, you had another file called .
 courses.html
- Then the line of code would simply be;

```
<a href="courses.html">Our Courses</a>
```

- A link does not have to link to another HTML file.
- it can link to any file anywhere on the web.



Creating Links

The following a Tags links to other html pages i.e about.html, contact.html. Copy the this program in your Notepad++. Lines *In blue*

```
<!DOCTYPE html>
<html>
                              Links
   <body>
      <a href="index.html">Home</a> -
      <a href="about.html">About Us</a> -
      <a href="links.html">Links</a> -
      <a href="contact.html">Contact Us</a> <br />
      This is my home page my website!
   </body>
</html>
```



HTML Centered Links

<u>Home</u> - <u>About Us</u> - <u>Links</u> - <u>Contact Us</u>

This is my home page my website!

Links to Contact us form

Check out more on http://www.w3schools.com/html/html links.asp



HTML Image

- HTML tag is used to display image on the web page.
- HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.
- Let's see an example of how to insert an image in HTML



HTML Image

<h2>HTML Image Example</h2>

The src points to image location in your computer, see more explanation next page



Attributes of HTML img tag

- The src and alt are important attributes of HTML img tag. All attributes of HTML image tag are given below.
- 1) src
 - It is a necessary attribute that describes the source or path of the image. It instructs the browser where to look for the image on the server.
- The location of image may be on the same folder or another folder in your computer.
- 2) alt
 - The alt attribute defines an alternate text for the image, if it can't be displayed. The value of the alt attribute describe the image in words.
 The alt attribute is considered good for SEO prospective.





HTML TABLES



HTML Table

- HTML tag is used to display data in tabular form (row * column).
- There can be many columns in a row.
- HTML tables are used to manage the layout of the page e.g. header section, navigation bar, body content, footer section etc.
- But it is recommended to use div tag over table to manage the layout of the page.



HTML Table

Tag	Description
	It defines a table.
	It defines a row in a table.
	It defines a header cell in a table.
>	It defines a cell in a table.
<caption></caption>	It defines the table caption.
<colgroup></colgroup>	It specifies a group of one or more columns in a table for formatting.
<col/>	It is used with <colgroup> element to specify column properties for each column.</colgroup>
	It is used to group the body content in a table.
<thead></thead>	It is used to group the header content in a table.
<tfooter></tfooter>	It is used to group the footer content in a table.

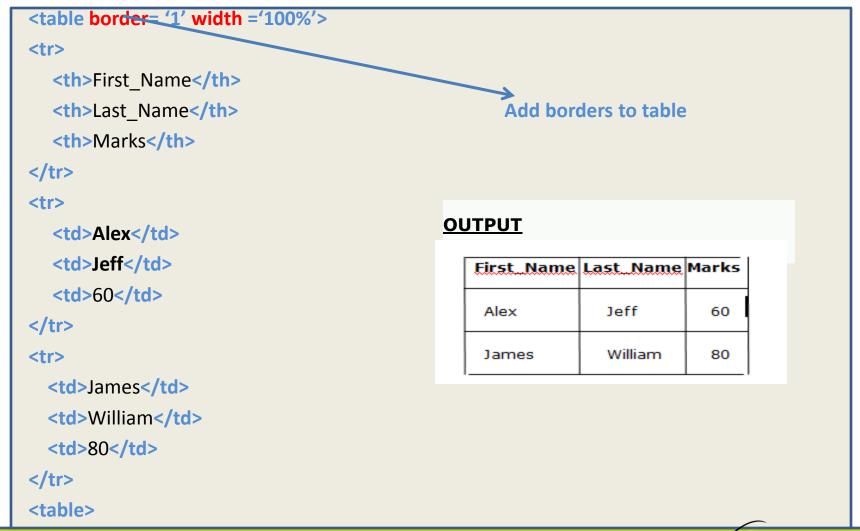


HTML Table Example

```
First_Name
 Last Name
 Marks
OUTPUT
 Alex
                       First Name Last Name Marks
 Jeff
 60
                                 60
                        Alex
                             Jeff
William
                                 80
                        James
James
 William
 80
```



HTML Table Example







HTML LISTS



HTML Lists

- HTML Lists are used to specify lists of information.
- All lists may contain one or more list elements. There are three different types of HTML lists:
 - Ordered List or Numbered List (ol)
 - Unordered List or Bulleted List (ul)
 - Description List or Definition List (dl)



HTML Ordered List or Numbered List

 In the ordered HTML lists, all the list items are marked with numbers. It is known as numbered list also. The ordered list starts with tag and the list items start with tag.



HTML Unordered List or Bulleted List

```
    Aries
    Bingo
    Leo
    Oracle
    Oracle
    Oracle
    Oracle
```

 In the ordered HTML lists, all the list items are marked with bullets. It is known as unordered list also. The unordered list starts with tag and the list items start with tag.



Description List or Definition List

- HTML Description list is also a list style which is supported by HTML.
- It is also known as definition list where entries are listed like a dictionary or encyclopedia.
- The definition list is very appropriate when you want to present glossary, list of terms or other name-value list.
- The HTML definition list contains following three tags:
 - <dl> tag defines the start of the list.
 - <dt> tag defines a term.
 - <dd> tag defines the term definition (description).



Description List or Definition List

```
OUTPUT
                                                      Aries
<dl>
                                                            -One of the 12 horoscope sign.
 <dt>Aries</dt>
                                                      Bingo
                                                            -One of my evening snacks
    <dd>-One of the 12 horoscope sign.</dd>
                                                      Leo
                                                            -It is also an one of the 12 horoscope sign.
 <dt>Bingo</dt>
                                                      Oracle
                                                            -It is a multinational technology corporation.
    <dd>-One of my evening snacks</dd>
<dt>Leo</dt>
   <dd>-It is also an one of the 12 horoscope sign.</dd>
<dt>Oracle</dt>
   <dd>-It is a multinational technology corporation.</dd>
</dl>
```



- HTML Ordered List or Numbered List displays elements in numbered format.
- The HTML ol tag is used for ordered list. There can be different types of numbered list:
 - Numeric Number (1, 2, 3)
 - Capital Roman Number (I II III)
 - Small Roman Number (i ii iii)
 - Capital Alphabet (A B C)
 - Small Alphabet (a b c)
- To represent different ordered lists, there are 5 types of attributes in
 tag.

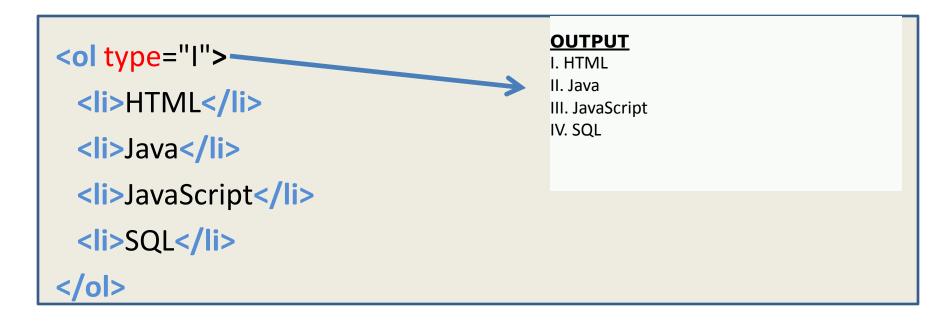


Туре	Description
Type "1"	This is the default type. In this type, the list items are numbered with numbers.
Type "I"	In this type, the list items are numbered with upper case roman numbers.
Type "i"	In this type, the list items are numbered with lower case roman numbers.
Type "A"	In this type, the list items are numbered with upper case letters.
Type "a"	In this type, the list items are numbered with lower case letters.

See example next page how to use them..

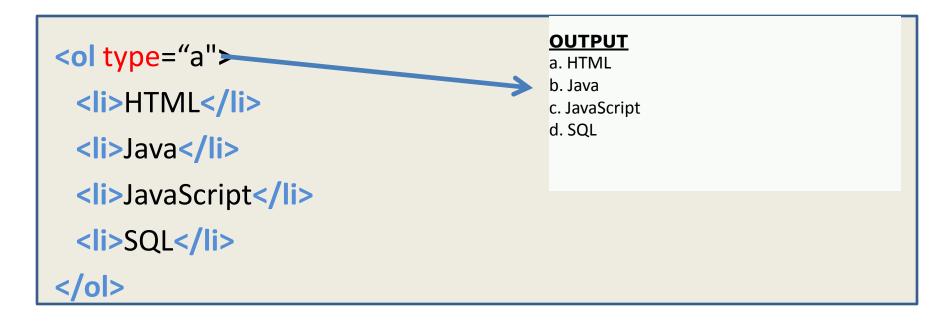


This is ordered list with 'Capital Roman Number'





This is ordered list with 'Small Alphabet'





This is ordered list with 'Small Roman Number'



This is ordered list with start attribute – the list starts at 4





HTML FORMS



HTML Form

- An HTML <form> is a section of a document which contains controls such as text fields, password fields, checkboxes, radio buttons, submit button, menus etc.
- An HTML form facilitates the user to enter data that is to be sent to the server for processing.

Why use HTML Form

- HTML forms are required if you want to collect some data from of the website visitor & send to a database.
- For example: If a user want to purchase some items on internet, he/she must fill the form such as shipping address and credit/debit card details so that item can be sent to the given address.



HTML Forms

- Forms can be used to send data across the web.
 - contact forms, login, registration forms.

- The tags used in the actual HTML of forms are;
 - form.
 - Input.
 - Textarea
 - select and option..



HTML Forms

- Form defines the form and within this tag, there is one required action attribute.
- Which tells the form where its contents will be sent to when it is submitted.

 The optional method attribute tells the form how the data in it is going to be sent



HTML Forms

<input type="text" /> is a standard textbox. This can also have a value attribute, which sets the text in the textbox.

• <input type="password" /> is the same as the textbox, but will display asterisks.

• <input type="checkbox" /> is a checkbox, which can be toggled on and off by the user.



HTML Forms

- <input type="radio" /> is similar to a checkbox, but the user can only select one radio button in a group.
- <input type="file" /> is an area that shows the files
 on your computer.
- <input type="submit" /> is a button that when selected will submit the form.
- <input type="number" /> is an input area that accepts
 only integers.



HTML Forms

- <input type="date" /> shows a calendar to select from.
- <input type="reset" /> is a button that when selected
 will reset the form fields.
- <input type="email" /> is a field that accept an email



HTML Form Tags

Tag	Description
<form></form>	It defines an HTML form to enter inputs by the used side.
<input/>	It defines an input control.
<textarea></td><td>It defines a multi-line input control.</td></tr><tr><td><label></td><td>It defines a label for an input element.</td></tr><tr><td><fieldset></td><td>It groups the related element in a form.</td></tr><tr><td><legend></td><td>It defines a caption for a <fieldset> element.</td></tr><tr><td><select></td><td>It defines a drop-down list.</td></tr><tr><td><optgroup></td><td>It defines a group of related options in a drop-down list.</td></tr><tr><td><option></td><td>It defines an option in a drop-down list.</td></tr><tr><td><button></td><td>It defines a clickable button.</td></tr></tbody></table></textarea>	



HTML Form

To start creating your form first define the <form> tag

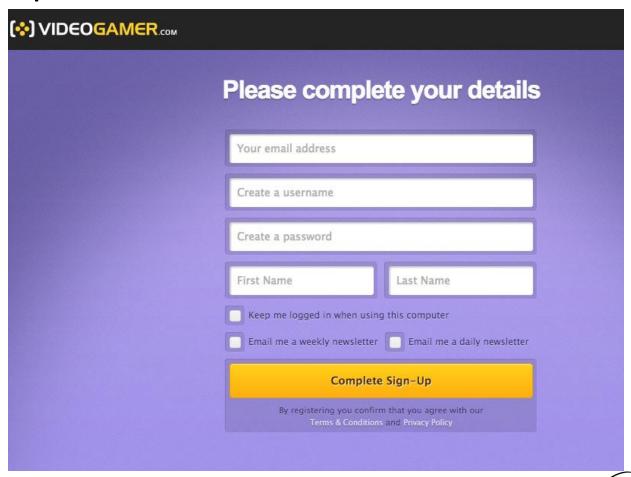
```
<form action="server url" method="get|post">
    //Other input controls goes here e.g. textfield, textarea, radiobutton, button, date
</form>
```

action and method will be discussed later



HTML Form

Example of a form





HTML TextField Control

- A TextField is widely used to collect user data such as names etc
- Below is an example of TextFields

```
<form action="server url" method="get|post">
    First Name: <input type="text" name="firstname"/> <br/>
Last Name: <input type="text" name="lastname"/> <br/>
</form>
```

action and method will be discussed later



Label Tag in Form

• It is considered better to have label in form. As it makes the code parser/browser/user friendly.

```
<form>
<label for="firstname">First Name: </label>
        <input type="text" name="firstname"/> <br/>
<label for="lastname">Last Name: </label>
        <input type="text" name="lastname"/> <br/>
</form>
```



HTML Password Field Control

 The password is not visible to the user in password field control.

```
<form>
<label for="password">Enter Password: </label>
<input type="password" name="password"/> <br/>
<label for="confirmpassword">Last Name: </label>
<input type="password" name=" confirmpassword "/> <br/>
</form>
```



HTML 5 Email Field Control

The email field in new in HTML 5. It validates the text for correct email address. You must use @ and . in this field

```
<form>
<label for="email">Enter Your Email: </label>
<input type="email" name="email"/> <br/>
</form>
```



Radio Button Control

- The radio button is used to select one from multiple options. It is used in gender, quiz questions etc.
- If you use one name for all the radio buttons, only one radio button can be selected at a time.

```
<form>
<label for="gender">Gender: </label>
    <input type="radio" name="gender" value="male"/>Male
    <input type="radio" name="gender" value="female"/>Female
    <br/>
</form>
```



HTML Forms – try this

```
<fieldset>
    <legend>Personal Details</legend>
         <form action = "" method = "">
             Username<br/>
             <input type = "text" name = "username"/>
             <br/>
             Password<br/>
             <input type = "password" name = "password"/>
             <br/>
             Confirm Password<br/>
             <input type = "password" name = "password"/>
             <br/>
             <input type = "submit" value = "Register"/>
             <input type = "reset"/>
         </form>
<fieldset>
```

