FEATURES OF HTML:

HTML is the most common used language to write web pages. It has recently gained popularity due to its advantages such as: -
1. It is the language which can be easily understood and can be modified.
2. Effective presentations can be made with the HTML with the help of its all formatting tags.
3. It provides the more flexible way to deign web pages along with the text.
4. Links can also be added to the web pages so it helps the readers to browse the information of their interest.
5. You can display HTML documents on any platforms such as Macintosh, Windows and Linux etc.
6. Graphics, videos and sounds can also be added to the web pages which give an extra attractive look to your web pages.

There are three list types in HTML:

unordered list — used to group a set of related items in no particular order

ordered list — used to group a set of related items in a specific order

description list — used to display name/value pairs such as terms and definitions

Each list type has a specific purpose and meaning in a web page.

Unordered lists

Unordered (bulleted) lists are used when a set of items can be placed in any order. An example is a shopping list:

- ❖ milk
- ❖ bread
- ❖ butter
- ❖ coffee beans

Although the items are all part of one list, you could put the items in any order and the list would still make sense:

- ❖ bread
- ❖ coffee beans
- ❖ milk
- ❖ butter

You can use CSS to change the bullet to one of several default styles, use your own image, or even display the list without bullets — we'll look at how to do that in the Styling lists and links article.

Unordered list markup

Unordered lists use one set of tags wrapped around one or more sets of tags:

```
<ul>
 <li>bread</li>
 <li>coffee beans</li>
 <li>milk</li>
 <li>butter</li>
```


Ordered lists

Ordered (numbered) lists are used to display a list of items that should be in a specific order. An example would be cooking instructions:

❖ Gather ingredients

❖ Mix ingredients together

❖ Place ingredients in a baking dish

❖ Bake in oven for an hour

❖ Remove from oven

❖ Allow to stand for ten minutes

❖ Serve

If the list items were moved around into a different order, the information would no longer make sense:

❖ Gather ingredients

❖ Bake in oven for an hour

❖ Serve

❖ Remove from oven

❖ Place ingredients in a baking dish

❖ Allow to stand for ten minutes

❖ Mix ingredients together

Ordered lists can be displayed with several sequencing options. The default in most browsers is decimal numbers, but there are others available:

➢ Letters

   ❖ Lowercase ascii letters (a, b, c…)

   ❖ Uppercase ascii letters (A, B, C…).

   ❖ Lowercase classical Greek: (ἐ, ἡ, ἱ…)

➢ Numbers

   ❖ Decimal numbers (1, 2, 3…)

   ❖ Decimal numbers with leading zeros (01, 02, 03…)

   ❖ Lowercase Roman numerals (i, ii, iii…)

   ❖ Uppercase Roman numerals (I, II, III…)

   ❖ Traditional Georgian numbering (an, ban, gan…)

   ❖ Traditional Armenian numbering (mek, yerku, yerek…)

HTML Table

A table in HTML consists of table cells inside rows and columns

```
<table>
 <tr>
  <th>Company</th>
  <th>Contact</th>
  <th>Country</th>
```

```
    </tr>
    <tr>
     <td>Alfreds Futterkiste</td>
     <td>Maria Anders</td>
     <td>Germany</td>
    </tr>
    <tr>
     <td>Centro comercial Moctezuma</td>
     <td>Francisco Chang</td>
     <td>Mexico</td>
    </tr>
</table>
```

Tag	Description
<table>	Defines a table
<th>	Defines a header cell in a table
<tr>	Defines a row in a table
<td>	Defines a cell in a table
<caption>	Defines a table caption
<colgroup>	Specifies a group of one or more columns in a table for formatting
<col>	Specifies column properties for each column within a <colgroup> element
<thead>	Groups the header content in a table
<tbody>	Groups the body content in a table
<tfoot>	Groups the footer content in a table

HTML Attributes

- ❖ All HTML elements can have attributes
- ❖ Attributes provide additional information about elements
- ❖ Attributes are always specified in the start tag
- ❖ Attributes usually come in name/value pairs like: name="value"
- ❖ There are two ways to specify the URL in the src attribute:

1. Absolute URL - Links to an external image that is hosted on another website. Example: src="https://www.w3schools.com/images/img_girl.jpg".

Notes: External images might be under copyright. If you do not get permission to use it, you may be in violation of copyright laws. In addition, you cannot control external images; it can suddenly be removed or changed.

2. Relative URL - Links to an image that is hosted within the website. Here, the URL does not include the domain name. If the URL begins without a slash, it will be relative to the current page. Example: src="img_girl.jpg". If the URL begins with a slash, it will be relative to the domain. Example: src="/images/img_girl.jpg".

Tip: It is almost always best to use relative URLs. They will not break if you change domain. Web Forms 2.0 is an extension to the forms features found in HTML4. Form elements and attributes in HTML5 provide a greater degree of semantic mark-up than HTML4 and free us from a great deal of tedious scripting and styling that was required in HTML4.

The <input> element in HTML4

HTML4 input elements use the type attribute to specify the data type.HTML4 provides following types –

Type	Description
text	A free form text field, nominally free of line breaks.
password	A free-form text field for sensitive information, nominally free of line breaks.
checkbox	A set of zero or more values from a predefined list.
radio	An enumerated value
submit	A free form of button initiates form submission.
file	An arbitrary file with a MIME type and optionally a file name
image	A coordinate, relative to a particular image's size, with the extra semantic that it must be the last value selected and initiates form submission.
Hidden	An arbitrary string that is not normally displayed to the user.
Select	An enumerated value, much like the radio type.
Textarea	A free-form text field, nominally with no line break restrictions.
button	A free form of button which can initiates any event related to button.

Following is the simple example of using labels, radio buttons, and submit buttons –

```
<form action="http://example.com/cgiscript.pl" method="post">
 <p>
<label for="firstname">first name: </label>
<input type="text" id="firstname"><br />
<label for="lastname">last name: </label>
<input type="text" id="lastname"><br />
<label for="email">email: </label>
<input type="text" id="email"><br>
<input type="radio" name="sex" value="male"> Male<br>
 <input type="radio" name="sex" value="female"> Female<br>
 <input type="submit" value="send"> <input type="reset">
 </p>
</form>
```

The <input> element in HTML5

Apart from the above-mentioned attributes, HTML5 input elements introduced several new values for the type attribute. These are listed below. NOTE: Try all the following example using latest version of Opera browser.

Type	Description
datetime	A date and time (year, month, day, hour, minute, second, fractions of a second) encoded according to ISO 8601 with the time zone set to UTC.
Datetimelocal	A date and time (year, month, day, hour, minute, second, fractions of a second) encoded according to ISO 8601, with no time zone information.
Date	A date (year, month, day) encoded according to ISO 8601.
Month	A date consisting of a year and a month encoded according to ISO 8601.
Week	A date consisting of a year and a week number encoded according to ISO 8601.
Time	A time (hour, minute, seconds, fractional seconds) encoded according to ISO 8601.
Number	It accepts only numerical value. The step attribute specifies the precision, defaulting to 1.
Range	The range type is used for input fields that should contain a value from a range of numbers
Email	It accepts only email value. This type is used for input fields that should contain an e-mail address. If you try to submit a simple text, it forces to enter only email address in email@example.com format.
url	It accepts only URL value. This type is used for input fields that should contain a URL address. If you try to submit a simple text, it forces to enter only URL address either in http://www.example.com format or in http://example.com format.