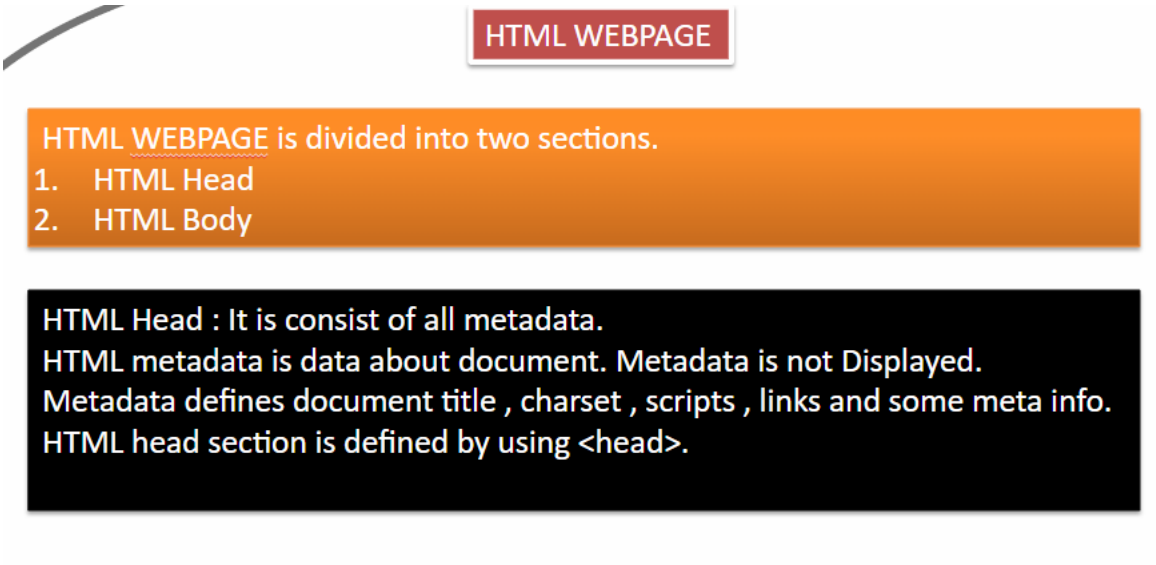
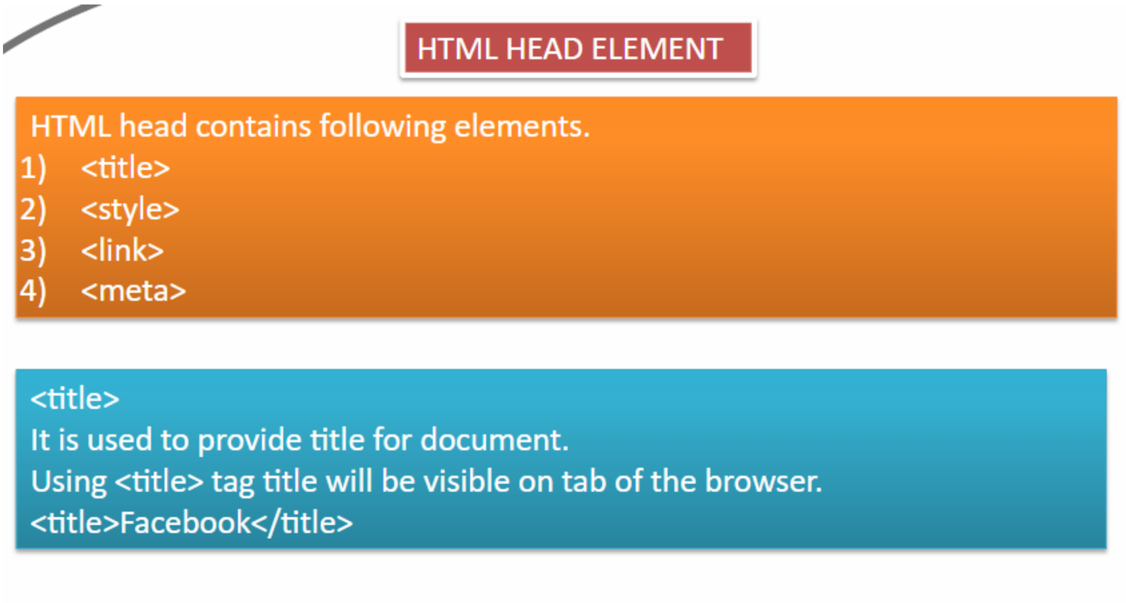


HTML WEBPAGE

HTML WEBPAGE is divided into two sections.

1. HTML Head
2. HTML Body

HTML Head : It is consist of all metadata.
HTML metadata is data about document. Metadata is not Displayed.
Metadata defines document title , charset , scripts , links and some meta info.
HTML head section is defined by using <head>.



HTML HEAD ELEMENT

HTML head contains following elements.

1) <title>
2) <style>
3) <link>
4) <meta>

<title>
It is used to provide title for document.
Using <title> tag title will be visible on tab of the browser.
<title>Facebook</title>

<style>
It is used to define style information for current web page.

<link>
It is used to link external files to HTML document .

<meta>
It is used to provide description , author , keywords.
Examples :
It is used to define charset
<meta charset="UTF-8">
It is used to define web page description
<meta name="description" content="web technology">

It is used to define keywords for search engine

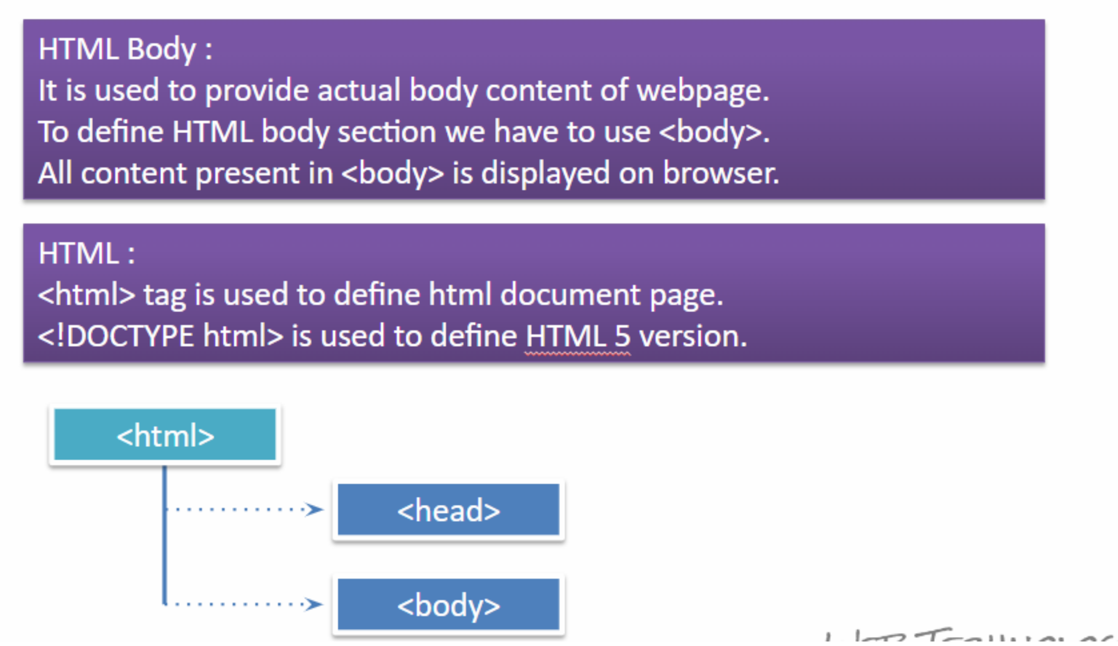
<meta name="keywords" content="web technology, html , css">

It is used to provide author name for web page

<meta name="author" content="Ajay Rathod">

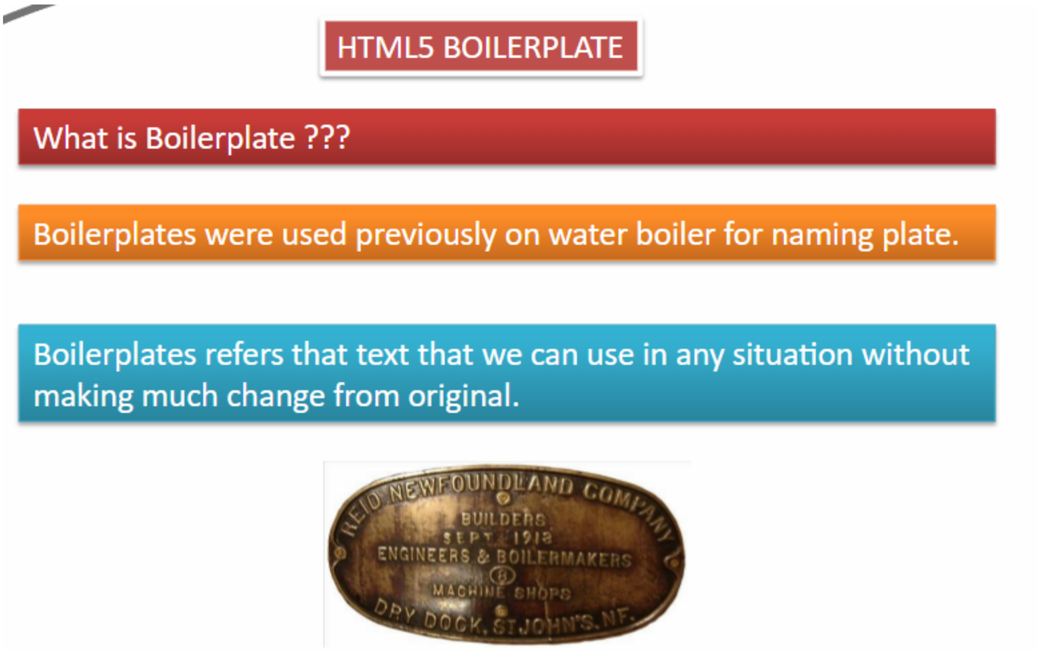
It is used to refresh webpage every 60 seconds

<meta http-equiv="refresh" content="60">



HTML Body :
It is used to provide actual body content of webpage.
To define HTML body section we have to use <body>.
All content present in <body> is displayed on browser.

HTML :
<html> tag is used to define html document page.
<!DOCTYPE html> is used to define HTML 5 version.



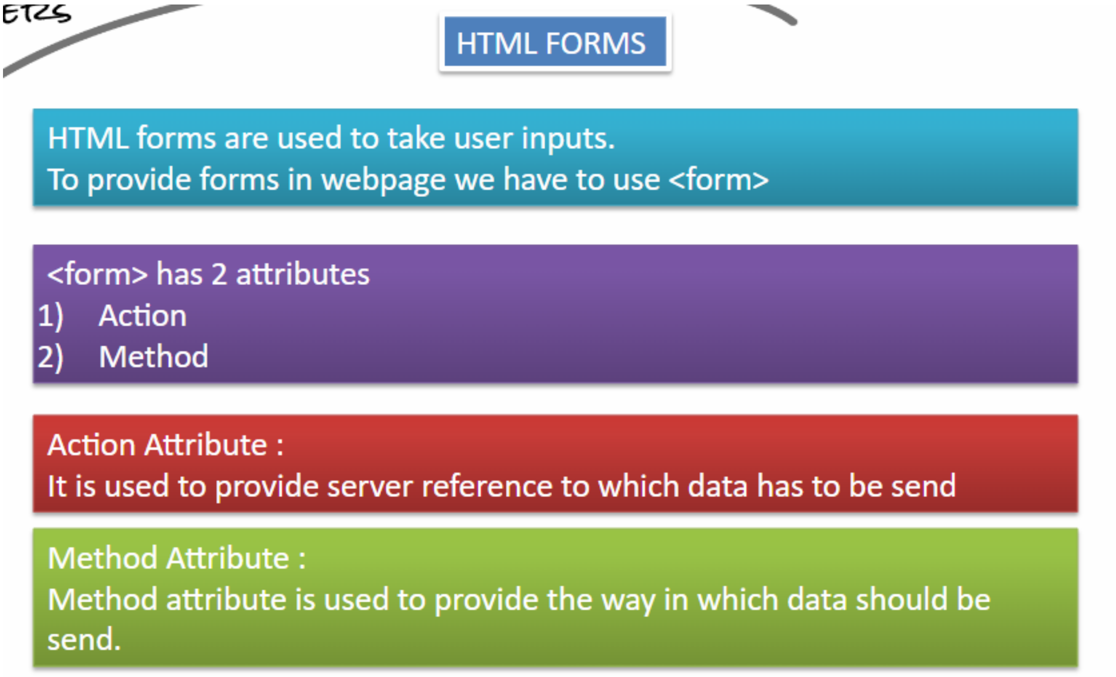
HTML5 BOILERPLATE

What is Boilerplate ???

Boilerplates were used previously on water boiler for naming plate.

Boilerplates refers that text that we can use in any situation without making much change from original.

REID NEWFOUNDLAND COMPANY
BUILDERS
SEPT 1918
ENGINEERS & BOILERMAKERS
MACHINE SHOPS
DRY DOCK, ST.JOHN'S, NF.



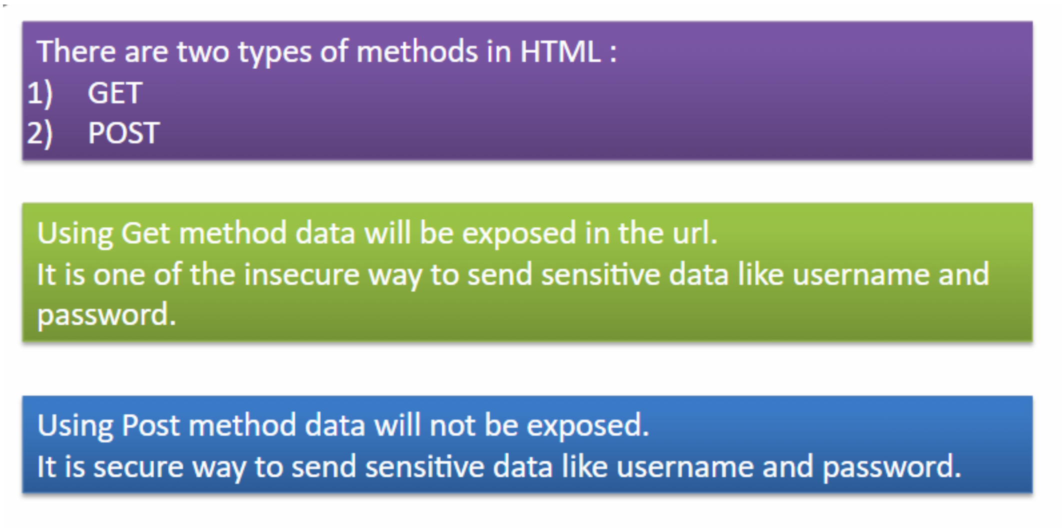
HTML FORMS

HTML forms are used to take user inputs.
To provide forms in webpage we have to use <form>

<form> has 2 attributes
1) Action
2) Method

Action Attribute :
It is used to provide server reference to which data has to be send

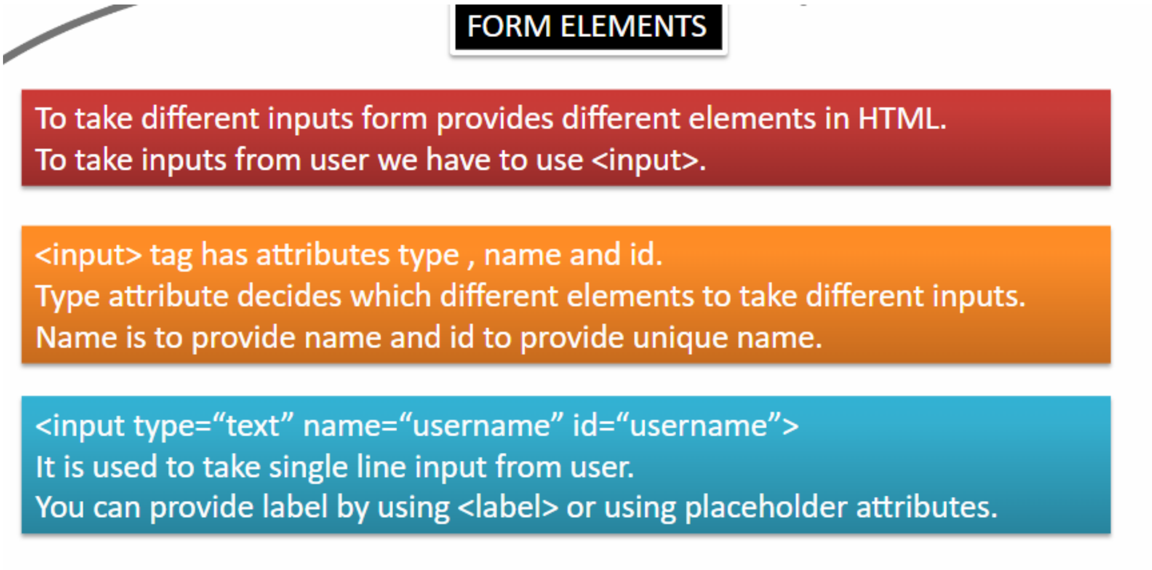
Method Attribute :
Method attribute is used to provide the way in which data should be send.



There are two types of methods in HTML :
1) GET
2) POST

Using Get method data will be exposed in the url.
It is one of the insecure way to send sensitive data like username and password.

Using Post method data will not be exposed.
It is secure way to send sensitive data like username and password.



FORM ELEMENTS

To take different inputs form provides different elements in HTML.
To take inputs from user we have to use <input>.

<input> tag has attributes type , name and id.
Type attribute decides which different elements to take different inputs.
Name is to provide name and id to provide unique name.

<input type="text" name="username" id="username">
It is used to take single line input from user.
You can provide label by using <label> or using placeholder attributes.

- `<input>`
- `<label>`
- `<select>`
- `<textarea>`
- `<button>`
- `<fieldset>`
- `<legend>`
- `<datalist>`
- `<option>`

The <input> Element

One of the most used form element is the `<input>` element.

The `<input>` element can be displayed in several ways, depending on the `type` attribute.

```
<form action="">

  <label for="fname">First name:</label><br>

  <input type="text" id="fname" name="fname"><br><br>

  <input type="submit" value="Submit"></form>
```

The <label> Element

The `<label>` element defines a label for several form elements.

The `<label>` element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focus on the input element.

The `<label>` element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the `<label>` element, it toggles the radio button/checkbox.

The `for` attribute of the `<label>` tag should be equal to the `id` attribute of the `<input>` element to bind them together.

The <select> Element

The `<select>` element defines a drop-down list:

```
<label for="cars">Choose a car:</label>
<select id="cars" name="cars">
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

The `<option>` elements defines an option that can be selected.

By default, the first item in the drop-down list is selected.

To define a pre-selected option, add the `selected` attribute to the option:

```
<select id="cars" name="cars">

  <option value="volvo">Volvo</option>

  <option value="saab">Saab</option>

  <option value="fiat" selected>Fiat</option>
  <option value="audi">Audi</option>

</select>
```

Visible Values:

Use the `size` attribute to specify the number of visible values:

```
<label for="cars">Choose a car:</label>
<select id="cars" name="cars" size="3">
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

Allow Multiple Selections:

Use the `multiple` attribute to allow the user to select more than one value:

```
<label for="cars">Choose a car:</label>
<select id="cars" name="cars" size="4" multiple>
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

The <textarea> Element

The `<textarea>` element defines a multi-line input field (a text area):

```
<form action="">

  <textarea name="message" rows="10" cols="30">The cat was playing in the garden.</textarea>

  <br><br>

  <input type="submit"></form>
```

The `rows` attribute specifies the visible number of lines in a text area.

The `cols` attribute specifies the visible width of a text area.

The <button> Element

The `<button>` element defines a clickable button:

```
<button type="button" onclick="alert('Hello World!')">Click
Me!</button>
```

The <fieldset> and <legend> Elements

The `<fieldset>` element is used to group related data in a form.

The `<legend>` element defines a caption for the `<fieldset>` element.

```
<form action="">
  <fieldset>
    <legend>Personalia:</legend>
    <label for="fname">First name:</label><br>
    <input type="text" id="fname" name="fname" value="John"><br>
    <label for="lname">Last name:</label><br>
    <input type="text" id="lname" name="lname" value="Doe"><br><br>
    <input type="submit" value="Submit">
  </fieldset>
</form>
```

The <datalist> Element

The `<datalist>` element specifies a list of pre-defined options for an `<input>` element.

Users will see a drop-down list of the pre-defined options as they input data.

The `list` attribute of the `<input>` element, must refer to the `id` attribute of the `<datalist>` element.

```
<form action="">
  <input list="browsers">
  <datalist id="browsers">
    <option value="Internet Explorer">
    <option value="Firefox">
    <option value="Chrome">
    <option value="Opera">
    <option value="Safari">
  </datalist>
</form>
```

HTML Input Types

Here are the different input types you can use in HTML:

- `<input type="button">`
- `<input type="checkbox">`
- `<input type="color">`
- `<input type="date">`
- `<input type="datetime-local">`
- `<input type="email">`
- `<input type="file">`
- `<input type="hidden">`
- `<input type="image">`
- `<input type="month">`
- `<input type="number">`
- `<input type="password">`
- `<input type="radio">`
- `<input type="range">`
- `<input type="reset">`
- `<input type="search">`
- `<input type="submit">`
- `<input type="tel">`
- `<input type="text">`
- `<input type="time">`
- `<input type="url">`
- `<input type="week">`

Input Type Text

`<input type="text">` defines a **single-line text input field**:

```
<form>
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname"><br>

</form>
```

Input Type Password

`<input type="password">` defines a **password field**:

```
<form>
  <label for="username">Username:</label><br>
  <input type="text" id="username" name="username"><br>
  <label for="pwd">Password:</label><br>
  <input type="password" id="pwd" name="pwd">
</form>
```

Input Type Submit

`<input type="submit">` defines a button for **submitting** form data to a **form-handler**.

The form-handler is typically a server page with a script for processing input data.

The form-handler is specified in the form's `action` attribute:

```
<form action="">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="John"><br>
  <input type="submit" value="Submit">
</form>
```

Input Type Reset

`<input type="reset">` defines a **reset button** that will reset all form values to their default values:

```
<form action="">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="John"><br>
  <input type="submit" value="Submit">
  <input type="reset" value="RESET">
</form>
```

Input Type Radio

`<input type="radio">` defines a **radio button**.

Radio buttons let a user select ONLY ONE of a limited number of choices:

```
<form>
  <input type="radio" id="html" name="fav_language" value="HTML">
  <label for="html">HTML</label><br>
  <input type="radio" id="css" name="fav_language" value="CSS">
  <label for="css">CSS</label><br>
  <input type="radio" id="javascript" name="fav_language" value="JavaSc
ript">
  <label for="javascript">JavaScript</label>

  <input type="submit" value="Submit">
</form>
```

Input Type Checkbox

`<input type="checkbox">` defines a **checkbox**.

Checkboxes let a user select ZERO or MORE options of a limited number of choices.

Example

```
<form>
  <input type="checkbox" id="vehicle1" name="vehicle1" value="Bike">
  <label for="vehicle1"> I have a bike</label><br>
  <input type="checkbox" id="vehicle2" name="vehicle2" value="Car">
  <label for="vehicle2"> I have a car</label><br>
  <input type="checkbox" id="vehicle3" name="vehicle3" value="Boat">
  <label for="vehicle3"> I have a boat</label>
</form>
```

Input Type Color

The `<input type="color">` is used for input fields that should contain a color.

Depending on browser support, a color picker can show up in the input field.

Example

```
<form>
  <label for="favcolor">Select your favorite color:</label>
  <input type="color" id="favcolor" name="favcolor">
</form>
```

Input Type Date

The `<input type="date">` is used for input fields that should contain a date.

Depending on browser support, a date picker can show up in the input field.

Example

```
<form>
  <label for="birthday">Birthday:</label>
  <input type="date" id="birthday" name="birthday">
</form>
```

You can also use the `min` and `max` attributes to add restrictions to dates:

Example

```
<form>
  <label for="datemax">Enter a date before 1980-01-01:</label>
  <input type="date" id="datemax" name="datemax" max="1979-12-
31"><br><br>
  <label for="datemin">Enter a date after 2000-01-01:</label>
  <input type="date" id="datemin" name="datemin" min="2000-01-02">
</form>
```

Input Type Datetime-local

The `<input type="datetime-local">` specifies a date and time input field, with no time zone.

Depending on browser support, a date picker can show up in the input field.

Example

```
<form>
  <label for="birthdaytime">Birthday (date and time):</label>
  <input type="datetime-local" id="birthdaytime" name="birthdaytime">
</form>
```

Input Type Email

The `<input type="email">` is used for input fields that should contain an e-mail address.

Depending on browser support, the e-mail address can be automatically validated when submitted.

Some smartphones recognize the email type, and add ".com" to the keyboard to match email input.

Example

```
<form>
  <label for="email">Enter your email:</label>
  <input type="email" id="email" name="email">
</form>
```

Input Type Image

The <input type="image"> defines an image as a submit button.

The path to the image is specified in the src attribute.

Example

```
<form>
<input type="image" src="img_submit.gif" alt="Submit" width="48" height
="48">
</form>
```

Input Type File

The <input type="file"> defines a file-select field and a "Browse" button for file uploads.

Example

```
<form>
  <label for="myfile">Select a file:</label>
  <input type="file" id="myfile" name="myfile">
</form>
```

Input Type Month

The <input type="month"> allows the user to select a month and year.

Depending on browser support, a date picker can show up in the input field.

Example

```
<form>
  <label for="bdaymonth">Birthday (month and year):</label>
  <input type="month" id="bdaymonth" name="bdaymonth">
</form>
```

Input Type Number

The `<input type="number">` defines a **numeric** input field.

You can also set restrictions on what numbers are accepted.

The following example displays a numeric input field, where you can enter a value from 1 to 5:

Example

```
<form>
  <label for="quantity">Quantity (between 1 and 5):</label>
  <input type="number" id="quantity" name="quantity" min="1" max="5">
</form>
```

Input Type Month

The `<input type="month">` allows the user to select a month and year.

Depending on browser support, a date picker can show up in the input field.

Example

```
<form>
  <label for="bdaymonth">Birthday (month and year):</label>
  <input type="month" id="bdaymonth" name="bdaymonth">
</form>
```

Input Type Number

The `<input type="number">` defines a **numeric** input field.

You can also set restrictions on what numbers are accepted.

The following example displays a numeric input field, where you can enter a value from 1 to 5:

Attribute	Description
checked	Specifies that an input field should be pre-selected when the page loads (for type="checkbox" or type="radio")

disabled	Specifies that an input field should be disabled
max	Specifies the maximum value for an input field
maxlength	Specifies the maximum number of character for an input field
min	Specifies the minimum value for an input field
pattern	Specifies a regular expression to check the input value against
readonly	Specifies that an input field is read only (cannot be changed)
required	Specifies that an input field is required (must be filled out)
size	Specifies the width (in characters) of an input field
step	Specifies the legal number intervals for an input field
Value	Specifies the default value for an input field
Placeholder	

Example

```
<form>
  <label for="quantity">Quantity (between 1 and 5):</label>
  <input type="number" id="quantity" name="quantity" min="1" max="5">
```

```
</form>
```

Input Type Range

The `<input type="range">` defines a control for entering a number whose exact value is not important (like a slider control). Default range is 0 to 100. However, you can set restrictions on what numbers are accepted with the `min`, `max`, and `step` attributes:

Example

```
<form>
  <label for="vol">Volume (between 0 and 50):</label>
  <input type="range" id="vol" name="vol" min="0" max="50">
</form>
```

Input Type Search

The `<input type="search">` is used for search fields (a search field behaves like a regular text field).

Example

```
<form>
  <label for="gsearch">Search Google:</label>
  <input type="search" id="gsearch" name="gsearch">
</form>
```

Input Type Tel

The `<input type="tel">` is used for input fields that should contain a telephone number.

Example

```
<form>
  <label for="phone">Enter your phone number:</label>
  <input type="tel" id="phone" name="phone" pattern="[0-9]{3}-[0-9]{2}-[0-9]{3}">
</form>
```

Input Type Time

The `<input type="time">` allows the user to select a time (no time zone).

Depending on browser support, a time picker can show up in the input field.

Example

```
<form>
  <label for="appt">Select a time:</label>
  <input type="time" id="appt" name="appt">
</form>
```

Input Type Url

The `<input type="url">` is used for input fields that should contain a URL address.

Depending on browser support, the url field can be automatically validated when submitted.

Some smartphones recognize the url type, and adds ".com" to the keyboard to match url input.

Example

```
<form>
  <label for="homepage">Add your homepage:</label>
  <input type="url" id="homepage" name="homepage">
</form>
```

Input Type Week

The `<input type="week">` allows the user to select a week and year.

Depending on browser support, a date picker can show up in the input field.

Example

```
<form>
```

```
  <label for="week">Select a week:</label>
  <input type="week" id="week" name="week">
</form>
```

The value Attribute

The input `value` attribute specifies an initial value for an input field:

The readonly Attribute

The input `readonly` attribute specifies that an input field is read-only.

A read-only input field cannot be modified (however, a user can tab to it, highlight it, and copy the text from it).

The disabled Attribute

The input `disabled` attribute specifies that an input field should be disabled.

A disabled input field is unusable and un-clickable.

The value of a disabled input field will not be sent when submitting the form!

The size Attribute

The input `size` attribute specifies the visible width, in characters, of an input field.

The default value for `size` is 20.

Note: The `size` attribute works with the following input types: text, search, tel, url, email, and password.

The maxlength Attribute

The input `maxlength` attribute specifies the maximum number of characters allowed in an input field.

Note: When a `maxlength` is set, the input field will not accept more than the specified number of characters.

The min and max Attributes

The input `min` and `max` attributes specify the minimum and maximum values for an input field.

The `min` and `max` attributes work with the following input types: number, range, date, datetime-local, month, time and week.

Tip: Use the max and min attributes together to create a range of legal values.

The multiple Attribute

The input `multiple` attribute specifies that the user is allowed to enter more than one value in an input field.

The `multiple` attribute works with the following input types: email, and file.

The pattern Attribute

The input `pattern` attribute specifies a regular expression that the input field's value is checked against, when the form is submitted.

The `pattern` attribute works with the following input types: text, date, search, url, tel, email, and password.

The placeholder Attribute

The input `placeholder` attribute specifies a short hint that describes the expected value of an input field (a sample value or a short description of the expected format).

The short hint is displayed in the input field before the user enters a value.

The `placeholder` attribute works with the following input types: text, search, url, tel, email, and password.

The required Attribute

The input `required` attribute specifies that an input field must be filled out before submitting the form.

The `required` attribute works with the following input types: text, search, url, tel, email, password, date pickers, number, checkbox, radio, and file.

The step Attribute

The input `step` attribute specifies the legal number intervals for an input field.

Example: if step="3", legal numbers could be -3, 0, 3, 6, etc.

Tip: This attribute can be used together with the max and min attributes to create a range of legal values.

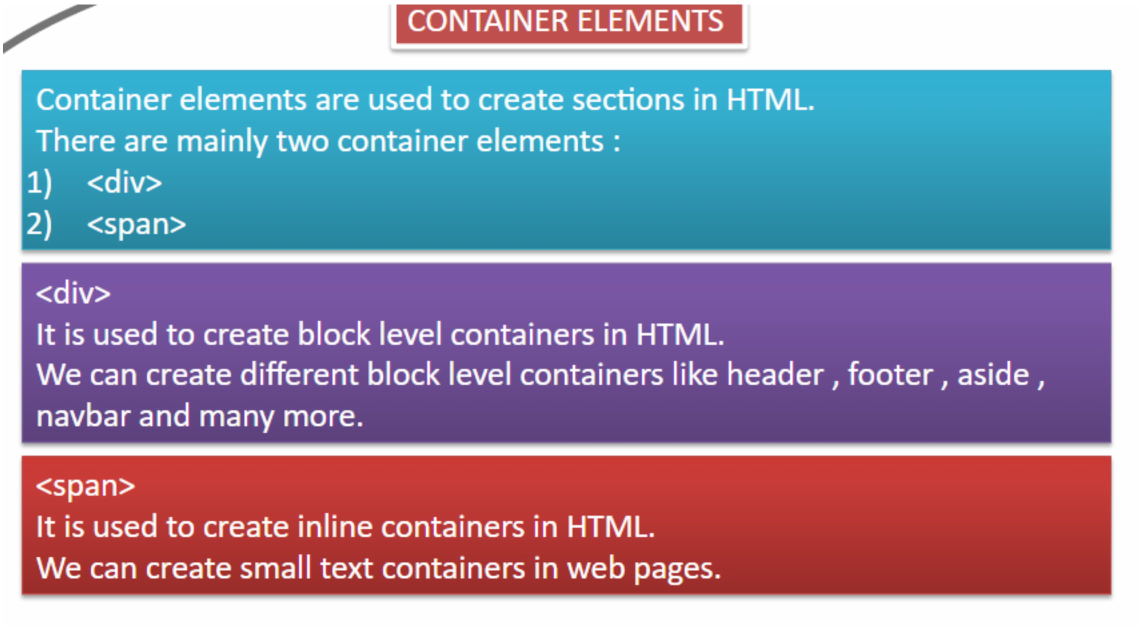
The `step` attribute works with the following input types: number, range, date, datetime-local, month, time and week.

The autofocus Attribute

The input `autofocus` attribute specifies that an input field should automatically get focus when the page loads.

The list Attribute

The input list attribute refers to a <datalist> element that contains pre-defined options for an <input> element.



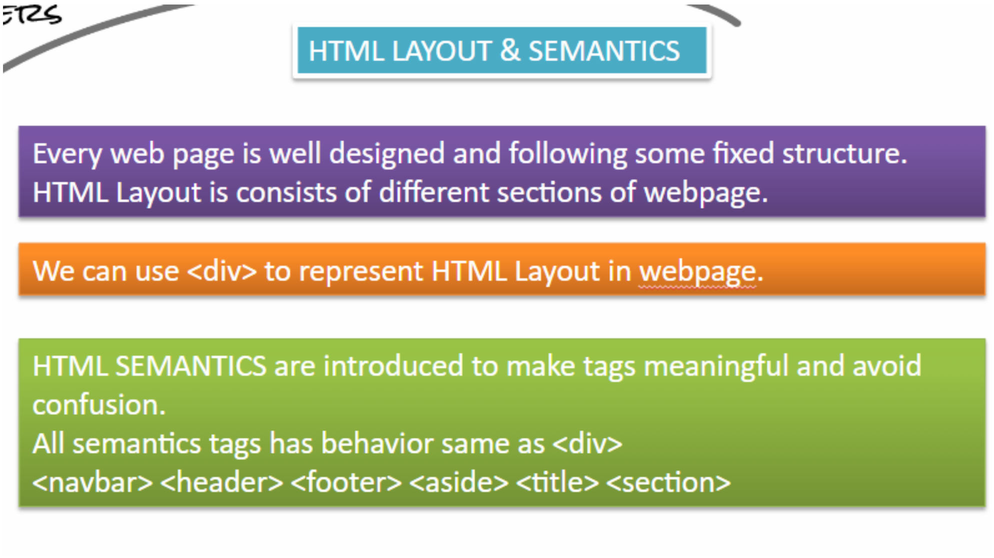
CONTAINER ELEMENTS

Container elements are used to create sections in HTML.
There are mainly two container elements :

1) <div>
2) <span>

<div>
It is used to create block level containers in HTML.
We can create different block level containers like header , footer , aside , navbar and many more.

<span>
It is used to create inline containers in HTML.
We can create small text containers in web pages.

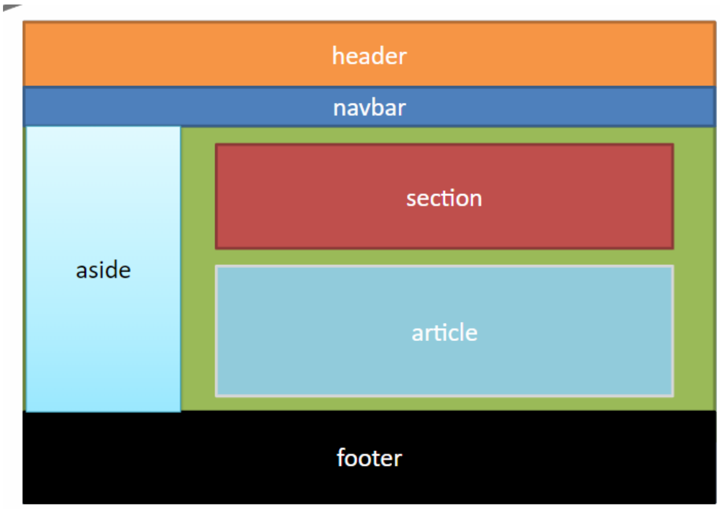


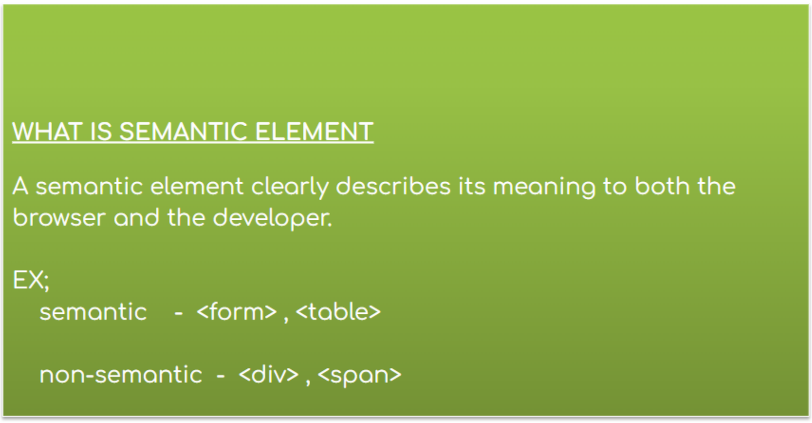
HTML LAYOUT & SEMANTICS

Every web page is well designed and following some fixed structure.
HTML Layout is consists of different sections of webpage.

We can use <div> to represent HTML Layout in webpage.

HTML SEMANTICS are introduced to make tags meaningful and avoid confusion.
All semantics tags has behavior same as <div>
<navbar> <header> <footer> <aside> <title> <section>





WHAT IS SEMANTIC ELEMENT

A semantic element clearly describes its meaning to both the browser and the developer.

EX;

semantic - <form> , <table>

non-semantic - <div> , <span>