Elements

Each element has a list of allowed, optional attributes that can be added to each element. Additionally, each element has a list of zero or more types that are valid children of the current element, and a list of zero or more attributes that they must have. For example, <iframe> elements must have a "src" attribute. All the elements have a default "id" and "class" attribute, except for the followings: "option", "script", "text", "html", "head", "meta", "title", "link".

Block elements

1) **div**
   description) The <div> tag defines a division or a section in a document.
   The <div> tag is used to group block-elements to format them with CSS.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".

2) **p**
   description) The <p> tag defines a paragraph.
   Browsers automatically add some space (margin) before and after each <p> element. The margins can be modified with CSS (with the margin properties).
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

3) **iframe**
   description) The <iframe> tag specifies an inline frame.
   An inline frame is used to embed another document within the current document.
   allowed children) No.
   allowed attributes)
   - "height" : Specifies the height of an <iframe>
   - "width": Specifies the width of an <iframe>
   - "name": Specifies the name of an <iframe>
   required attributes)
   - "src" : Specifies the address of the document to embed in the <iframe>.

4) **h1**
   description) The <h1> to <h6> tags are used to define headings.
   <h1> defines the most important heading. <h6> defines the least important heading.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

5) **h2**
   description) The <h1> to <h6> tags are used to define headings.
   <h1> defines the most important heading. <h6> defines the least important heading.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

6) **h3**

description) The <h1> to <h6> tags are used to define headings.
<h1> defines the most important heading. <h6> defines the least important heading.
allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

7) **h4**

description) The <h1> to <h6> tags are used to define headings.
<h1> defines the most important heading. <h6> defines the least important heading.
allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

8) **h5**

description) The <h1> to <h6> tags are used to define headings.
<h1> defines the most important heading. <h6> defines the least important heading.
allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

9) **h6**

description) The <h1> to <h6> tags are used to define headings.
<h1> defines the most important heading. <h6> defines the least important heading.
allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

10) **article**

description) The <article> tag specifies independent, self-contained content.
An article should make sense on its own and it should be possible to distribute it independently from the rest of the site.
Potential sources for the <article> element:
- Forum post
- Blog post
- News story
- Comment

allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script","header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".

11) **header**

description) The <header> element represents a container for introductory content or a set of navigational links.
A <header> element typically contains:
- one or more heading elements (<h1> - <h6> and <hgroup>)
- logo or icon
- authorship information

You can have several <header> elements in one document.
allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".

12) **footer**

description) The <footer> tag defines a footer for a document or section.
A <footer> element should contain information about its containing element.
A <footer> element typically contains:
- authorship information
- copyright information
- contact information
- sitemap
- back to top links
- related documents

You can have several <footer> elements in one document.
allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".

13) **aside**
description) The <aside> tag defines some content aside from the content it is placed in.
The aside content should be related to the surrounding content.
allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".

Form elements

1. **form**
   description) The <form> tag is used to create a form for user input.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "table", "iframe", "dl".
   allowed attributes)
   - "enctype": Specifies how the form-data should be encoded when submitting it to the server (only for method="post")
   - "name": Specifies the name of a form
   required attributes)
   - "action": Specifies where to send the form-data when a form is submitted
   - "method": Specifies the method to use when sending form-data

2. **input**
   description) The <input> tag specifies an input field where the user can enter data.
   <input> elements are used within a <form> element to declare input controls that allow users to input data.
   An input field can vary in many ways, depending on the type attribute.
   allowed children) No.
   allowed attributes)

- "name" : Specifies the name of an <input> element
- "type": Specifies the type <input> element to display: {button; checkbox; color; date; datetime; datetime-local; email; file; hidden; image; month; number; password; radio; range; reset; search; submit; tel; text; time; url; week}
- "placeholder": Specifies a short hint that describes the expected value of an <input> element

3. **select**
description) The <select> element is used to create a drop-down list.
The <option> tags inside the <select> element define the available options in the list.
allowed children) "option".
allowed attributes)
- "name" : Defines a name for the drop-down list
- "disabled": Specifies that a drop-down list should be disabled

4. **option**
description) The <option> tag defines an option in a select list.
<option> elements go inside a <select> element.
allowed children) "text".
allowed attributes)
- "value" : Specifies the value to be sent to a server

5. **label**
description) The <label> tag defines a label for an <input> element.
The <label> element does not render as anything special for the user. However, it provides a usability improvement for mouse users, because if the user clicks on the text within the <label> element, it toggles the control.
The for attribute of the <label> tag should be equal to the id attribute of the related element to bind them together.
allowed children) "text", "span", "a", "strong", "em", "input", "select", "button", "img", "textarea", "small", "script".
allowed attributes)
- "for" : Specifies which form element a label is bound to

6. **button**
description) The <button> tag defines a clickable button.
Inside a <button> element you can put content, like text or images. This is the difference between this element and buttons created with the <input> element.
allowed children) "text", "span", "strong", "em", "button", "img", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "table", "dl".
allowed attributes)
- "value" : Specifies an initial value for the button
- "name": Specifies a name for the button
- "readonly": Specifies that a button should be read-only
- "disabled": Specifies that a button should be disabled
- "type": Specifies the type of button: {button, reset, submit}

7. **textarea**
   description) The <textarea> tag defines a multi-line text input control.
   A text area can hold an unlimited number of characters, and the text renders in a fixed-width font (usually Courier).
   The size of a text area can be specified by the cols and rows attributes, or even better; through CSS' height and width properties.
   allowed children) "text".
   allowed attributes)
   - "value" : Specifies an initial value for the text area
   - "name": Specifies a name for the text area
   - "readonly": Specifies that a text area should be read-only
   - "disabled": Specifies that a text area should be disabled
   - "cols": Specifies the visible width of a text area
   - "rows": Specifies the visible number of lines in a text area

Inline elements

1. **span**
   description) The <span> tag is used to group inline-elements in a document.
   The <span> tag provides no visual change by itself.
   The <span> tag provides a way to add a hook to a part of a text or a part of a document.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".
2. **a**
   description) The <a> tag defines a hyperlink, which is used to link from one page to another.
   The most important attribute of the <a> element is the href attribute, which indicates the link's destination.
   By default, links will appear as follows in all browsers:
   - An unvisited link is underlined and blue
   - A visited link is underlined and purple
   - An active link is underlined and red
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".
   allowed attributes)
   - "href" : Specifies the URL of the page the link goes to
3. **strong**
   description) The <strong> tag is a phrase tag. It defines important text.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".
4. **em**
   description) The <em> tag is a phrase tag. It renders as emphasized text.

allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

5. **small**
description) The <small> tag defines smaller text (and other side comments).
allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script".

6. **text**
description) A string.
allowed children) No.
allowed attributes) No.

7. **img**
description) The <img> tag defines an image in a page.
allowed children) No.
allowed attributes)
   ● "height" : Specifies the height of an image
   ● "width": Specifies the width of an image
   ● "alt": Specifies an alternate text for an image
required attributes)
   ● "src" : Specifies the URL of an image

8. **script**
description) The <script> tag is used to define a client-side script, such as a JavaScript.
The <script> element either contains scripting statements, or it points to an external script file through the src attribute.
Common uses for JavaScript are image manipulation, form validation, and dynamic changes of content.
allowed children) "text"
allowed attributes)
   ● "src" : Specifies the URL of an external script file
   ● "type": Specifies the media type of the script

List elements

1. **ul**
description) The <ul> tag defines an unordered (bulleted) list.
Use the <ul> tag together with the <li> tag to create unordered lists.
allowed children) "li".

2. **ol**
description) The <ol> tag defines an ordered list. An ordered list can be numerical or alphabetical. Use the <li> tag to define list items.

allowed children) ”li”.
3. **dl**
   description) The <dl> tag defines a description list.
   The <dl> tag is used in conjunction with <dt> (defines terms/names) and <dd> (describes each term/name).
   allowed children) "dt", "dd".
4. **li**
   description) The <li> tag defines a list item.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".
5. **dt**
   description) The <dt> tag defines a term/name in a description list.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".
6. **dd**
   description) The <dd> tag is used to describe a term/name in a description list.
   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".

Structure elements

1. **html**
   description) The <html> tag tells the browser that this is an HTML document.
   The <html> tag represents the root of an HTML document.
   The <html> tag is the container for all other HTML elements.
   allowed children) "head", "body".
   allowed attributes)
      ● "lang" : Specifies the language of a document.
2. **head**
   description) The <head> element is a container for all the head elements.
   The <head> element must include a title for the document, and can include scripts, styles, meta information, and more.
   allowed children) "meta", "title", "link".
3. **body**
   description) The <body> tag defines the document's body.
   The <body> element contains all the contents of a document, such as text, hyperlinks, images, tables, lists, etc.

allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".

4. **meta**

   description) Metadata is data (information) about data.
   The <meta> tag provides metadata about the document. Metadata will not be displayed on the page, but will be machine parsable.
   Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata.
   The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services.
   allowed children) No.
   allowed attributes)
   - "http-equiv" : Provides an HTTP header for the information/value of the content attribute: {content-type, default-style, refresh}
   - "content": Gives the value associated with the http-equiv or name attribute
   - "name": Specifies a name for the metadata
   - "charset": Specifies the character encoding for the document

5. **title**

   description) The <title> tag is required in all the documents and it defines the title of the document.
   The <title> element:
   - defines a title in the browser toolbar
   - provides a title for the page when it is added to favorites
   - displays a title for the page in search-engine results
   allowed children) "text".

6. **link**

   description) The <link> tag defines a link between a document and an external resource.
   The <link> tag is used to link to external style sheets.
   allowed children) No.
   allowed attributes)
   - "rel" : Specifies the relationship between the current document and the linked document: {alternate; archives; author; bookmark; external; first; help; icon; last; license; next; nofollow; noreferrer; pingback; prefetch; prev; search; sidebar; stylesheet; tag; up}
   - "rev": Specifies the relationship between the linked document and the current document
   - "href": Specifies the location of the linked document
   - "title": Defines alternative style sheet sets.
   - "media": Specifies the media for which the destination of the hyperlink was designed
   - "type": Specifies the media type of the linked document

Table elements

1. **table**
   description) The <table> tag defines a table.
   allowed children) "thead", "tbody", "tfoot".
2. **thead**
   description) The <thead> tag is used to group header content in a table.
   The <thead> element is used in conjunction with the <tbody> and <tfoot> elements to specify each part of a table (header, body, footer).
   Browsers can use these elements to enable scrolling of the table body independently of the header and footer. Also, when printing a large table that spans multiple pages, these elements can enable the table header and footer to be printed at the top and bottom of each page.
   The <thead> tag must be used in the following context: As a child of a <table> element and before any <tbody>, <tfoot>, and <tr> elements.
   allowed children) "tr".
3. **tfoot**
   description) The <tfoot> tag is used to group footer content in a table.
   The <tfoot> element is used in conjunction with the <thead> and <tbody> elements to specify each part of a table (footer, header, body).
   Browsers can use these elements to enable scrolling of the table body independently of the header and footer. Also, when printing a large table that spans multiple pages, these elements can enable the table header and footer to be printed at the top and bottom of each page.
   The <tfoot> tag must be used in the following context: As a child of a <table> element, after any <thead> element and before any <tbody> and <tr> elements.
   allowed children) "tr".
4. **tbody**
   description) The <tbody> tag is used to group the body content in a table.
   The <tbody> element is used in conjunction with the <thead> and <tfoot> elements to specify each part of a table (body, header, footer).
   Browsers can use these elements to enable scrolling of the table body independently of the header and footer. Also, when printing a large table that spans multiple pages, these elements can enable the table header and footer to be printed at the top and bottom of each page.
   The <tbody> tag must be used in the following context: As a child of a <table> element, after any <thead> element.
   allowed children) "tr".
5. **tr**
   description) The <tr> tag defines a row in a table.
   A <tr> element contains one or more <th> or <td> elements.

allowed children) "td", "th".

6. **td**

   description) The <td> tag defines a standard cell in a table.

   A table has two kinds of cells:

   - Header cells - contains header information (created with the <th> element)
   - Standard cells - contains data (created with the <td> element)

   The text in <th> elements are bold and centered by default.

   The text in <td> elements are regular and left-aligned by default.

   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".

7. **th**

   description) The <th> tag defines a header cell in a table.

   A table has two kinds of cells:

   - Header cells - contains header information (created with the <th> element)
   - Standard cells - contains data (created with the <td> element)

   The text in <th> elements are bold and centered by default.

   The text in <td> elements are regular and left-aligned by default.

   allowed children) "text", "span", "a", "strong", "em", "input", "select", "label", "button", "img", "textarea", "small", "script", "header", "aside", "article", "footer", "p", "h1", "h2", "h3", "h4", "h5", "h6", "ul", "div", "form", "table", "iframe", "dl".