

CIS4004 HTML Tables and Forms

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Tags: [IT](#) [web development](#)

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Table Elements

- Tables are used to organize and display data
 - Not appropriate to use for organizing webpage content, even though it was popular in the past

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Alice	A.	I.T.	4.0
Bob	B.	C.S.	3.9
Charlie	C.	C.S.	3.8

- In HTML, we define the structure using a set of nested tags:
 - **< table>** = Root element of the table
 - **< tr>** = Container for cells appearing in a row
 - **< th>** = Header data
 - **< td>** = Table data

Additional Table Elements

- Improve accessibility, make it look better, denote sections of the table
 - **< caption>** = Content describing the table data
 - Allows a mechanism to describe the table with metadata, should be the first child tag after the table.
 - **< thead>** = Table header data
 - **< tbody>** = Main table data
 - **< tfoot>** = Table's footer

Table Attributes

- Common to merge cells, can be achieved using **rowspan** and **colspan** attributes

Form Elements

- Common way to collect data from users
 - Surveys, creating a message board posting, ordering pizza, etc.

There are a few key tags to utilize, but must be specific to achieve our goal:

- **< form >** = Container for the elements with which the user will provide input
 - Uses "action" attribute, what is used to collect the data
- **< label >** = Text to describe an associated control.
 - Uses "for" attribute (matches input id)
- **< input >** = Void element used to specify and place controls on the screen.
 - Uses "type", "name", and "id" attributes
- "for" attribute specifies which control it is associated. Clicking the label brings focus to the control.
 - The value of "for" should match the "id" of a control
- Input elements should use the "name" and "id" attributes; uses variously such as scripting
 - **type="text"** creates a simple text box
 - **type="password"** creates a simple text box, but the user's typed values are not displayed
 - **type="number"** creates a simple text box, but the value must be a number; includes spinner buttons
 - **type="email"** or **type="phone"** creates a simple text box, but devices with adaptive keyboards (i.e., smartphones) may filter input buttons to match
 - **type="checkbox"** creates a simple, clickable box, to denote a Boolean value
 - **type="radio"** creates a radio button; combine this with the name attribute to group buttons
 - **type="date"** creates a date picker
 - **type="time"** creates a time picker
 - **type="button"** creates a button; but this can be paired with JavaScript, but send data to a server...
 - use **type="submit"** instead

Other Form Elements

- **< textarea >** = Provides a large box in which the user can type a long message
- **< select >** = Creates a "combo box", i.e. a "drop-down menu"
 - Pair with **< option >** to define terms

Form Validation

- When users interact with a web form, we need to make sure the values they are providing are valid.
 - If we expect a phone number but alphabetical characters are provided, we know the input doesn't match our expectations.
- **required** = Input must have a value
- **pattern** = Input must follow the specified regular expression
- **title** = Useful to describe patterns to the user
- **min/max** = Value must not exceed the specified bounds
 - Either min, max, or both can be present
- **maxlength** = Input size cannot exceed this value

Extra resources

https://www.w3schools.com/html/html_forms.asp

References