

4. HTML Forms

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HTML Forms

The <form> Element

- HTML forms are used to collect user input.
- <form> element defines an HTML form

```
<form>  
  .  
  form elements  
  .  
</form>
```

- Form elements are different types of input elements, checkboxes, radio buttons, submit buttons, and more.

HTML Forms (cont'd)

❏ The <input> Element

- ❏ The types used in this chapter – You will learn a lot more about input types later

Type	Description
text	Defines normal text input
radio	Defines radio button input (for selecting one of many choices)
submit	Defines a submit button (for submitting the form)

❏ Text Input

- ❏ `<input type="text">` defines a one-line input field for **text input**. *Try it!*

HTML Forms (cont'd)

❏ Radio Button Input *Try it!*

- ❏ `<input type="radio">` defines a **radio button**.
- ❏ Radio buttons let a user select ONE of a limited number of choices.

❏ The Submit Button *Try it!*

- ❏ `<input type="submit">` defines a button for **submitting** a form to a **form-handler**.
- ❏ form-handler
 - A server page with a script for processing input data.
 - Specified in the form's **action** attribute

HTML Forms (cont'd)

❏ The Action Attribute

- ❏ Defines the action to be performed when the form is submitted

```
<form action= "action_page.php" >
```

❏ The Method Attribute

- ❏ Specifies the HTTP method (**GET** or **POST**) to be used when submitting the forms

```
<form action= "action_page.php" method= "GET" >
```

or

```
<form action= "action_page.php" method= "POST" >
```

HTML Forms (cont'd)

❏ When to Use GET? (Default method)

- ❏ If the form submission is passive (like a search engine query), and without sensitive information
- ❏ The form data will be visible in the page address

```
action_page.php?firstname=Mickey&lastname=Mouse
```

❏ When to Use POST?

- ❏ If the form is updating data, or includes sensitive information (password).
- ❏ Offers better security because the submitted data is not visible in the page address

❏ The Name Attribute *Try it!*

- ❏ To be submitted correctly, each input field must have a name attribute.

HTML Form Elements

❏ This chapter describes all HTML form elements

❏ The <input> Element

- ❏ Can vary in many ways, depending on the type attribute
- ❏ All HTML input types are covered in the next chapter.

❏ The <select> Element (Drop-Down List) *Try it!*

- ❏ <select> element defines a **drop-down** list.
- ❏ <option> elements defines the options to select.
- ❏ You can add a selected attribute to define a predefined option. *Try it!*

HTML Form Elements (cont'd)

The <textarea> Element *Try it!*

- Defines a multi-line text input field (a text area).

The <button> Element *Try it!*

- Defines a clickable button.

HTML Form Elements (cont'd)

HTML5 Form Elements

- <datalist>, <keygen>, <output>

HTML5 <datalist> Element *Try it!*

- Specifies a list of pre-defined options for an <input> element
- Users will see a drop-down list of pre-defined options as they input data
- The **list** attribute of the <input> element, must refer to the **id** attribute of the <datalist> element.

HTML Form Elements (cont'd)

HTML5 <keygen> Element *Try it!*



- To provide a secure way to authenticate users
- Specifies a key-pair generator field in a form
- When the form is submitted, two keys are generated, one private and one public.
 - The private key is stored locally, and the public key is sent to the server.
 - Public key could be used to generate a client certificate to authenticate the user in the future

HTML5 <output> Element *Try it!*



- Represents the result of a calculation (like one performed by a script)

HTML Input Types

HTML5 Input Types

- color, date, datetime, datetime-local, email, month, range, search, tel, time, url, week

Input Type : number *Try it!*








- `<input type="number">` is used for input fields that should contain a numeric value.
- You can set restrictions on the numbers.

HTML Input Types (cont'd)

Input Restrictions *Try it!*



Attribute	Description
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

HTML Input Types (cont'd)

Input Type : date *Try it!*



- `<input type="date">` is used for input fields that should contain a date.
- You can add restrictions to the input. *Try it!*

Input Type : color *Try it!*



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

Input Type : range *Try it!*



- `<input type="range">` is used for input fields that should contain a value within a range.

HTML Input Types (cont'd)

Input Type : month *Try it!*



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

Input Type : week *Try it!*



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

Input Type : time *Try it!*



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

Input Type : datetime *Try it!*

- `<input type="datetime">` allows the user to select a date and time (with time zone)

HTML Input Types (cont'd)

Input Type : datetime-local *Try it!*



- `<input type="datetime-local">` allows the user to select a date and time (no time zone)

Input Type : email *Try it!*



- `<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.

Input Type : search *Try it!*



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

HTML Input Types (cont'd)

Input Type : tel *Try it!*



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

Input Type : url *Try it!*



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

HTML Input Attributes

❏ The value Attribute Try it!

- Specifies the initial value for an input field.

❏ The readonly Attribute Try it!

- Specifies that the input field is read only (cannot be changed)

❏ The disabled Attribute Try it!

- Specifies that the input field is disabled
- A disabled element is un-usable and un-clickable. Disabled elements will not be submitted.

HTML Input Attributes (cont'd)

❏ The size Attribute *Try it!*

- Specifies the size (in characters) for the input field.

❏ The maxlength Attribute *Try it!*

- Specifies the maximum allowed length for the input field.

HTML Input Attributes (cont'd)

HTML5 Attributes

- For <input>
 - autocomplete, autofocus, form, formaction, formenctype, formmethod, formnovalidate, formtarget, height and width, list, min and max, multiple, pattern (regexp), placeholder, required, step
- For <form>
 - autocomplete, novalidate

The autocomplete Attribute *Try it!*



- Specifies whether a form or input field should have autocomplete on or off
- When autocomplete is on, the browser automatically complete values based on values that the user has entered before
- Works with <form> and the following <input> types
 - text, search, url, tel, email, password, datepickers, range, and color

HTML Input Attributes (cont'd)

❖ The novalidate Attribute Try it!



- <form> attribute
- Specifies that the form-data should not be validated when submitted

❖ The autofocus Attribute Try it!



- A boolean attribute
- Specifies that an <input> element should automatically get focus when the page loads

❖ The form Attribute Try it!



- Specifies one or more forms an <input> element belongs to
- To refer to more than one form, use a space-separated list of form ids

HTML Input Attributes (cont'd)

❖ The formaction Attribute *Try it!*



- Specifies the URL of a file that will process the input control when the form is submitted
- Overrides the action attribute of the <form> element
- Is Used with type="submit" and type="image"

❖ The enctype Attribute *Try it!*



- Specifies how the form-data should be encoded when submitting it to the server(only for forms with method="post")
- Overrides the enctype attribute of the <form> element
- Is used with type="submit" and type="image"

HTML Input Attributes (cont'd)

❖ The formmethod Attribute Try it!



- Defines the HTTP method for sending form-data to the action URL
- Overrides the method attribute of the <form> element
- Can be used with type="submit" and type="image"

❖ The formnovalidate Attribute Try it!



- A Boolean attribute.
- Specifies that the <input> element should not be validated when submitted
- Overrides the novalidate attribute of the <form> element
- Can be used with type="submit"

HTML Input Attributes (cont'd)

❖ The formtarget Attribute *Try it!*



- Specifies a name or keyword that indicates where to display the response that is received after submitting the form
- Overrides the target attribute of the <form> element
- Can be used with type="submit" and type="image"

❖ The height and width Attribute *Try it!*



- Specify the height and width of an <input> element
- Only used with <input type="image">

❖ The list Attribute *Try it!*



- Refers to a <datalist> element that contains pre-defined options for an <input> element.

HTML Input Attributes (cont'd)

❖ The min and max Attributes Try it!



- Specify the minimum and maximum value for an <input> element.
- Work with the following input types
 - Number, range, data, datetime, datetime-local, month, time and week.

❖ The multiple Attribute Try it!



- A Boolean attribute
- Specifies that the user is allowed to enter more than one value in the <input> element.
- Works with the following input types
 - Email, and file.

HTML Input Attributes (cont'd)

❖ The pattern Attribute *Try it!*



- Specifies a regular expression that the <input> element's value is checked against
- Works with the following input types
 - text, search, url, tel, email, and password

❖ The placeholder Attribute *Try it!*



- Specifies a hint that describes the expected value of an input field (a sample value or short description of the format)
- The hint is displayed in the input field before the user enters a value.
- Works with the following input types
 - text, search, url, tel, email, and password

HTML Input Attributes (cont'd)

❖ The required Attribute Try it!



- A boolean attribute
- Specifies that an input field must be filled out before submitting the form
- Works with the following input types
 - text, search, url, tel, email, password, date pickers, number, checkbox, radio, and file

❖ The step Attribute Try it!



- Specifies the legal number intervals for an <input> element.
- Works with the following input types
 - number, range, date, datetime, datetime-local, month, time and week.