

[Lesson 9]

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[What we learnt last time?]

- How to move a block on the page without influencing a flow
- How to place blocks on top of the other blocks
- How to create static block which will remain on the same place during the scrolling
- Different ways of assigning colors in CSS
- Ways of making a color/block transparent

[Our targets for today]

- Why sprites are better than a lot of icons
- How to use sprites: background-position
- HTML-forms: types of inputs, required attributes

[Sprites]

- Sprite - one big image that contains inside all the other small images from your page
- Sprites are used for faster page loading
- Usually one sprite contains all icons from a page
- To create a sprite you must save all small images from psd and use sprite generator to create one big image
- To show specific image from sprite you need to use “background-position”
- We can change background-position with transition for animated hover effect

[HTML Forms]

- The **<form>** element defines a form that is used to collect user input:

```
<form action="/action_page.php" method="get">  
  ...  
  form elements  
  ...  
</form>
```

- An HTML form contains **form elements**
 - Form elements are different types of input elements, like text fields, checkboxes, buttons, etc.
- The **action** attribute defines the action to be performed when the form is submitted
 - Normally, the form data is sent to a page on the server when the user clicks on the submit button
 - The page contains a server-side script that handles the form data
 - If the action attribute is omitted, the action is set to the current page

[The method Attribute]

- The **method** attribute specifies the HTTP method (**GET** or **POST**) to be used when submitting the form data

```
<form action="/action_page.php" method="get">
```

- GET appends form data into the URL in name/value pairs

- Can be bookmarked

- Limited in length

- Never use GET to send sensitive data! (will be visible in the URL)

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

- POST places data in the body of the HTTP Request

- Hidden from view

- Unlimited length

```
POST /folder/page.aspx HTTP/1.0
User-agent: Mozilla/4.0
Content-type: application/x-www-form-urlencoded
Content-length: 25
Name=Mickey&Address=Mouse
```

- If not specified, the default method is GET

[The <input> Element]

- The most important form element is the <input> element
- The <input> element can be displayed in several ways, depending on the **type** attribute

```
<form>  
  First name:<input type="text" name="firstName"><br/> Last  
  name:<input type="text" name="lastName" /><br/>  
</form>
```

First name:

Last name:

- If the type attribute is omitted, the input field gets the default type: "text"
- Each input field must have a **name** attribute to be submitted to the server
 - If the name attribute is omitted, the data of that input field will not be sent at all

[HTML Input Attributes]

Attribute	Meaning
value	The initial value for an input field
readonly	The input field cannot be changed
disabled	The input field is disabled
size	The size (in characters) for the input field
maxlength	The maximum allowed length for the input field

→ Example:

First name:<input type="text" name="firstName" maxlength="10" value="Roi">
 Last
name:<input type="text" name="lastName" disabled />

First name:

Last name:

[Input Type Password]

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

```
<form>  
  User name:<input type="text" name="username"/><br/>  
  Password:<input type="password" name="password" /><br/>  
</form>
```

User name:

Password:

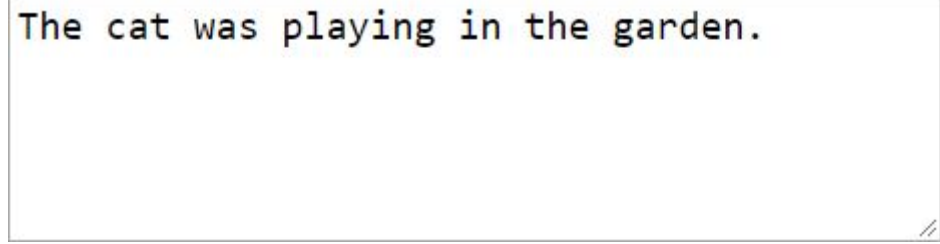
→ The characters in a password field are masked (shown as asterisks or circles)

[The <textarea> Element]

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

```
<textarea name="message" rows="5" cols="40">The cat was playing in the garden.  
</textarea>
```

- 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 cat was playing in the garden.

[Input Type Submit]

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

```
<form action="/action_page.php">  
  First name:<br/>  
  <input type="text" name="firstname" value="Mickey"/><br/> Last  
  name:<br/>  
  <input type="text" name="lastname" value="Mouse"/><br/><br/>  
  <input type="submit" value="Submit"/>  
</form>
```

First name:

Mickey

Last name:

Mouse

Submit

[Input Type Reset]

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

```
<form action="/action_page.php"> First  
  name:<br/>  
  <input type="text" name="firstname" value="Mickey"/><br/>  
  Last name:<br/>  
  <input type="text" name="lastname" value="Mouse"><br/><br/>  
  <input type="submit" value="Submit"/>  
  <input type="reset"/>  
</form>
```

First name:

Mickey

Last name:

Mouse

Submit

Reset

[Radio Buttons]

- `<input type="radio">` defines a **radio button**
- Radio buttons let a user select only one of a limited number of choices
- All radio buttons that belong to the same group must have the same name

```
<form>
  <input type="radio" name="gender" value="male" checked/>Male
  <input type="radio" name="gender" value="female"/>Female
  <input type="radio" name="gender" value="other"/>Other
</form>
```

☒ Male ☐ Female ☐ Other

[Checkboxes]

- `<input type="checkbox">` defines a **checkbox**.
- Checkboxes let a user select zero or more options of a limited number of choices

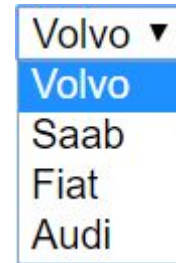
```
<form>  
  <input type="checkbox" name="vehicle1" value="Bike"/>I have a bike<br/>  
  <input type="checkbox" name="vehicle2" value="Car"/>I have a car  
</form>
```

☐ I have a bike
☐ I have a car

[The <select> Element]

- The **<select>** element defines a **drop-down list**
- The **<option>** elements define options that can be selected

```
<select name="cars">  
  <option value="volvo">Volvo</option>  
  <option value="saab">Saab</option>  
  <option value="fiat">Fiat</option>  
  <option value="audi">Audi</option>  
</select>
```



- Use the **size** attribute to specify the number of visible values:

```
<select 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>
```



[The <select> Element]

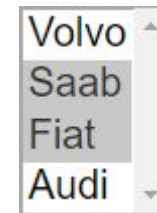
- Use the **multiple** attribute to allow the user to select more than one value
 - Hold down the Ctrl (windows) / Command (Mac) button to select multiple options

```
<select name="cars" multiple>
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```



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

```
<select name="cars" multiple>
  <option value="volvo">Volvo</option>
  <option value="saab" selected>Saab</option>
  <option value="fiat" selected>Fiat</option>
  <option value="audi">Audi</option>
</select>
```



[The <button> Element]

→ The **<button>** element defines a clickable **button**:

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

→ There are 3 supported types for a button:

→ submit - submits the form when clicked (default)

→ button - clickable, but without any event handler until one is assigned

→ reset - resets the fields in the form when clicked

→ We'll learn how to handle input events in JavaScript later in the course

[Grouping Form Data with <fieldset>]

- The <fieldset> element is used to group related data in a form
- The <legend> element defines a caption for the <fieldset> element

```
<fieldset>
  <legend>Vehicles</legend>
  <input type="checkbox" name="vehicle1" value="Bike" />I have a bike<br />
  <input type="checkbox" name="vehicle2" value="Car" />I have a car
</fieldset>
```



[Exercise (1)]

→ Create the following form in HTML:

Control Type	Data	Control
Text box	Name:	<input type="text" value="Enter name"/>
Password	Password:	<input type="password"/>
Text area	Address:	<input type="text" value="Enter address"/>
Drop down list	Area:	<input type="text" value="Center ▼"/>
Check box	Hobbies:	<input type="checkbox"/> Sport <input type="checkbox"/> Reading <input type="checkbox"/> T.V. <input type="checkbox"/> Internet
Radio Buttons	Gender:	<div>Gender selection</div> <div><input checked="" type="radio"/> Male <input type="radio"/> Female</div>
File upload	Your image:	<input type="button" value="Choose File"/> No file chosen
Buttons	Actions:	<input type="button" value="Submit"/> <input type="button" value="Reset"/> <input type="button" value="Button"/>

[Control questions]

1. Why do we use sprites instead of many small images?
2. What is the required attribute of <form> for a request to be correctly sent?
3. What is the default “display” property of form inputs?
4. Can we style a checkbox?