HTML FORM BASICS

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AFTER THIS PRESENTATION

- You'll be able to create an HTML form

- You'll appreciate the two most common form elements

ELEMENTS & ATTRIBUTES WE WILL LOOK AT

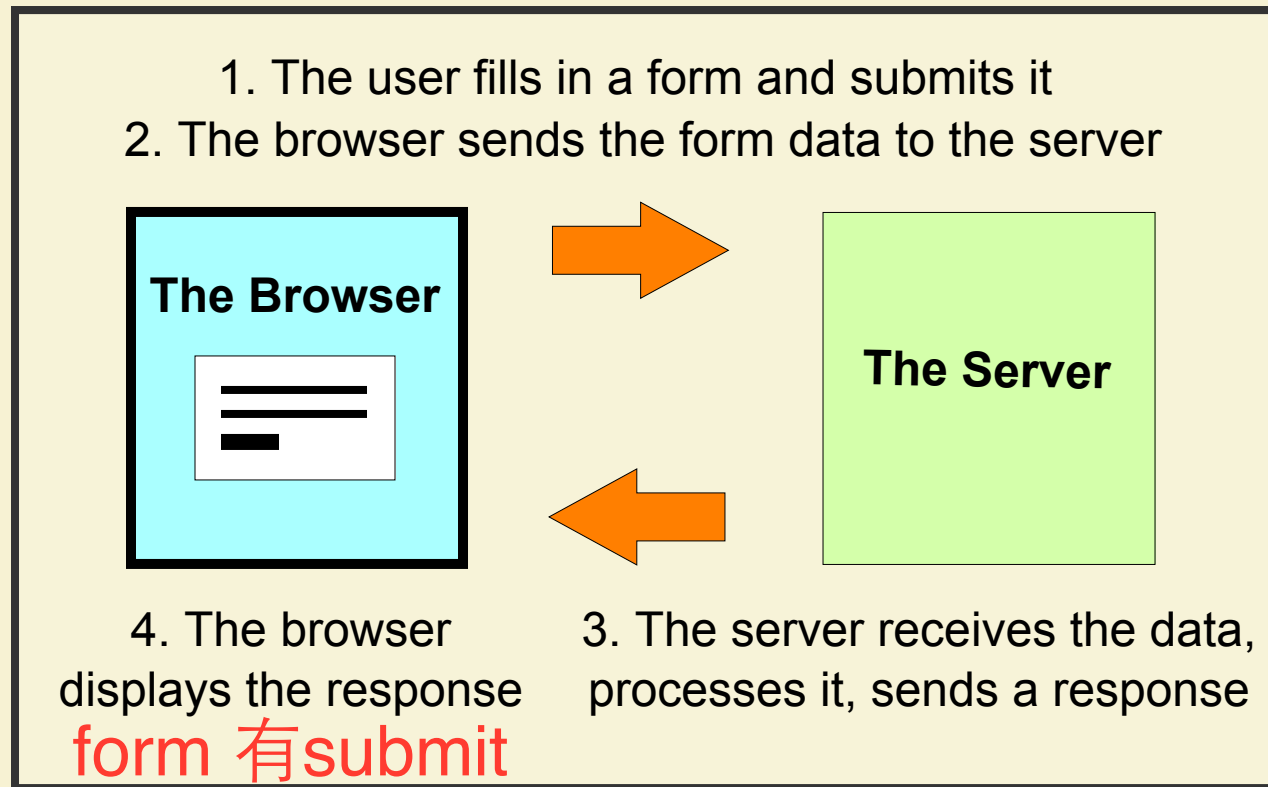<form>   *method* attribute

                                              action attribute

<textarea>

<input type="submit">

FROM BROWSER TO SERVER

Forms are the simplest method

1. The user fills in a form and submits it
2. The browser sends the form data to the server

The Browser

The Server

4. The browser displays the response

3. The server receives the data, processes it, sends a response

form 有submit

要提交的目的地址

BASIC FORM STRUCTURE

```
<form action="destination" method="get or post">
```

…form elements go here…

```
    <input type="submit">  通常是：<button class="submit">
```

```
</form>
```

DESTINATION

action="*destination*" tells the browser
what program to send the form data to e.g.:

```
<form action="http://www.server.com/subdirectory/program.php">
```

If the program is on same server as the html file:

```
<form action="subdirectory/program.php">
```

If the program in same directory as the html file:

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

GET OR POST

method="get"

get is the default method

Example: search for *cats* using bing.com

The URL will be *http://www.bing.com/search?q=cats...*

THE GET METHOD

For a project you are developing, using get is a good idea

Seeing the form data in the URL is useful

However, you cannot keep any secrets

get can only handle a small transmission
e.g. a few hundred letters/characters

THE POST METHOD

method="post"

The main difference to get is you cannot see any data

Using post is better for keeping secrets

post can handle a big transmission e.g. files

SIMPLE EXAMPLE - TEXTAREA

```
<form>

        <p>Please enter any feedback you have.</p>

        <textarea rows="3" cols="60" name="feedback" >
        Please enter your text here
        </textarea>


</form>
```

Please enter any feedback you have.

Please enter your text here

ADDING A SUBMIT BUTTON

```html
<form action="http://ihome.ust.hk/~rossiter/cgi-bin/show_everything.php"
      method="get">
    <p>Please enter any feedback you have.</p>

    <textarea rows="3" cols="60" name="feedback" >
    Please enter your text here
    </textarea>
    <br>
    <input type="submit" value="Send">
</form>
```

Select here to open the HTML file

Please enter any feedback you have.

Please enter your text here

Send

MORE ON FORMS

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AFTER THIS PRESENTATION

- You'll be able to differentiate between the many form elements

ELEMENTS WE WILL LOOK AT

<select>	<option>
<input type="text">	<input type="password">
<input type="checkbox">	<input type="radio">

ATTRIBUTES WE WILL LOOK AT

placeholder attribute

value attribute

autofocus attribute

required attribute

A REMINDER

```html
<form action="http://ihome.ust.hk/~rossiter/cgi-bin/show_everything.php"
      method="get">
    <p>Please enter any feedback you have.</p>

    <textarea rows="3" cols="60" name="feedback" >
    Please enter your text here
    </textarea>
    <br>
    <input type="submit" value="Send">
</form>
```

FORM INPUT ELEMENTS

Submit button	`<input type="submit">`
Plain text	`<input type="text">`
Checkbox	`<input type="checkbox">`
Radio button	`<input type="radio">`
Password field	`<input type="password">`

TEXT, CHECKBOX & RADIO

```html
<form>
    Please enter your name. <br>
    <input type="text" name="feedback"> <br> <br>

    Please select each of the following that you have. <br>
    <input type="checkbox" name="items" value="car">Car <br>
    <input type="checkbox" name="items" value="teddy bear">Teddy bear <br>
    <input type="checkbox" name="items" value="toothbrush">Toothbrush <br> <br>

    Please indicate your intelligence level. <br>
    <input type="radio" name="iq" value="high">High <br>
    <input type="radio" name="iq" value="medium" checked>Medium <br>
    <input type="radio" name="iq" value="low">Low <br> <br>
</form>
```

name一样，为了只表示一个变量

Please enter your name.

Please select each of the following that you have.
- [ ] Car
- [ ] Teddy bear
- [ ] Toothbrush

Please indicate your intelligence level.
- ( ) High
- (•) Medium
- ( ) Low

PASSWORD

```
<form>
	<p>What is the secret password?</p>
	<input type="password" name="userpassword"> <br>
</form>
```

What is the secret password?

BE CAREFUL!

```html
<form action="http://ihome.ust.hk/~rossiter/cgi-bin/show_everything.php">
    <p>What is the secret password?</p>
    <input type="password" name="userpassword"> <br>

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

password需要选择post的方式，for security

What is the secret password?

[ ]

Send

Select here to open the HTML file

SELECTING FROM A LIST

```html
<form>
      <p>What city would you like to go to?</p>

      <select name="cities">
            <option value="hk">Hong Kong</option>
            <option value="vc">Vancouver</option>
            <option value="sf">San Francisco</option>
      </select>
</form>
```

What city would you like to go to?

Hong Kong ▼

USEFUL ATTRIBUTES

value="something" fixes what is shown at the start

placeholder="something" shows useful text which disappears
when the user enters something

初始光标位置

autofocus sets which field is given focus at the start

required means this field must be completed

EXAMPLE

```html
<form>
      <p>Please fill in the following information:</p>

      <label for="firstname">First name:</label>
      <input type="text" name="firstname" value="Dave" autofocus>
      <br>
      <label for="lastname">Last name:</label>
      <input type="text" name="lastname" placeholder="Your last name goes here">
      <br>
      <label for="age">Age:</label>
      <input type="text" name="age" required>
      <br>

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

Please fill in the following information:

First name: Dave

Last name: Your last name goes here

Age:

Submit

HANDLING FILE UPLOAD

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AFTER THIS PRESENTATION

- You'll be able to handle file upload in a form

ELEMENTS & ATTRIBUTES WE WILL LOOK AT

<input type="file">

UPLOADING FILES

Two parts: the browser and the server

The server part is discussed later

UPLOADING FILES - FORM STRUCTURE

```
<form action="destination" method="post" enctype="multipart/form-data">
```

…other form input elements go here, if any…

```
    <input type="file" name="fileToUpload">
```

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

```
</form>
```

enctype 属性规定在发送到服务器之前应该如何对表单数据进行编码

FILE UPLOAD EXAMPLE

```html
<form method="post" enctype="multipart/form-data"
  action="http://ihome.ust.hk/~rossiter/cgi-bin/show_everything.php">

  <p>Select the file you want to upload</p>
      <input type="file" name="fileToUpload">    选择文件

      <p>Press this button to send it</p>
      <input type="submit" value="Upload the file">

</form>
```

Select here to open the HTML file

Select the file you want to upload

[Choose File] No file chosen

Press this button to send it

[Upload the file]

Select here to open the HTML file

THE SERVER PROGRAM

The file is given to the required server program

The server program may do several things

It may move the file into another directory

It may save the file in a database

SOME NEW HTML5 INPUT ELEMENTS

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AFTER THIS PRESENTATION

- You'll be able to use some new HTML5 input elements

ELEMENTS & ATTRIBUTES WE WILL LOOK AT

<input type="number">

<input type="date">

<input type="color">

<input type="range">

<input type="time">

NEW HTML5 INPUT ELEMENTS

Number Input	`<input type="number">`
Date Input	`<input type="date">`
Time Input	`<input type="time">`
Color Picker	`<input type="color">`
Slider	`<input type="range">`
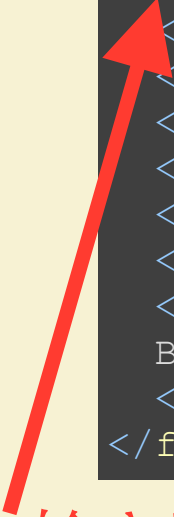
EXAMPLE

```
<form action="http://ihome.ust.hk/~rossiter/cgi-bin/show_everything.php">
  <label for="age">Your age:</label>
  <input type="number" min="0" max="99" step="1" value="18" name="age" required><br
  <label for="birthday">Your birthday:</label>
  <input type="date" name="birthday"><br>
  <label for="wakeup">You want to wake up at:</label>
  <input type="time" name="wakeup"><br>
  <label for="color">Your favorite color:</label>
  <input type="color" name="color"> <br>
  <label for="mood">Your mood:</label>
  Bad <input type="range" min="0" max="100" step="5" value="50" name="mood"> Good<b
  <input type="submit" value="Submit!">
</form>
```

输入限定必须是number

Your age: 18

Your birthday: dd/mm/yyyy

You want to wake up at: -- : --

Your favorite color:

Your mood: Bad ———————◻——————— Good

Submit!

Select here to open the example