

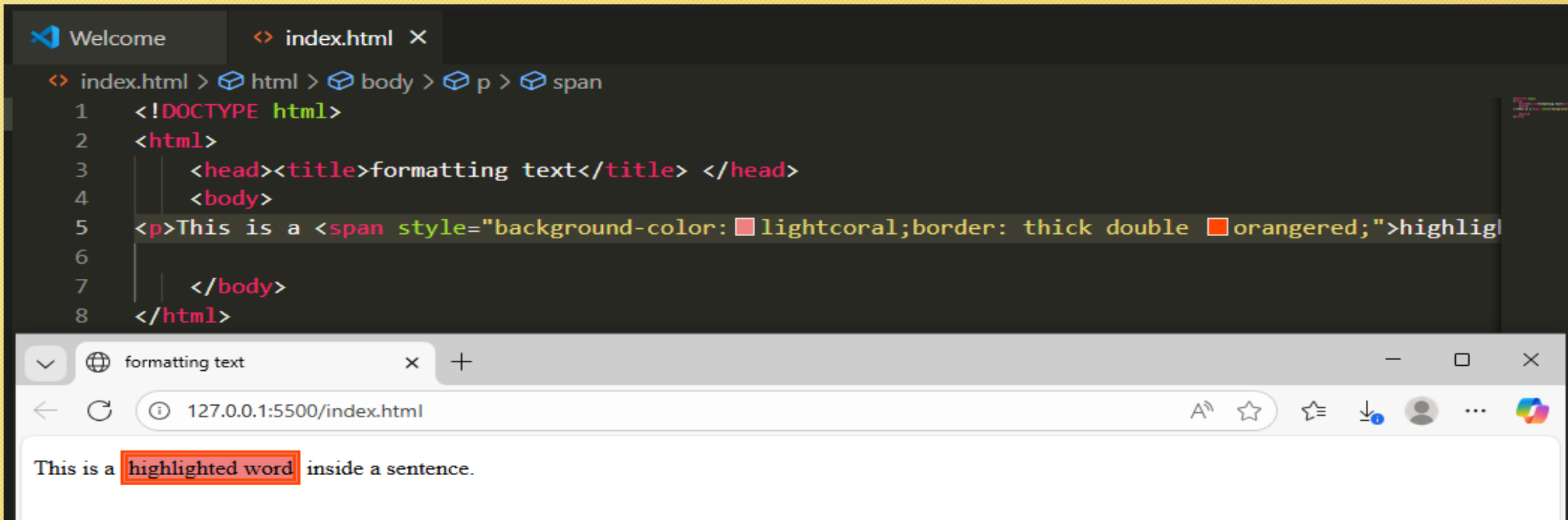


Web programming I

Section 3

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- The **** tag is an inline container used to mark a specific part of text so you can style or manipulate it with CSS or JavaScript.



The screenshot displays a code editor window with a file named `index.html`. The code structure is as follows:

```
1 <!DOCTYPE html>
2 <html>
3   <head><title>formatting text</title> </head>
4   <body>
5     <p>This is a <span style="background-color: lightcoral;border: thick double orangered;">highlighted word</span> inside a sentence.
6   </body>
7 </html>
```

Below the code editor, a web browser window is open at the address `127.0.0.1:5500/index.html`. The browser's content area shows the rendered HTML, where the text "highlighted word" is enclosed in a thick, double orange border with a light coral background, demonstrating the effect of the inline CSS styles applied to the `` tag.

<div>

- The **<div>** tag in HTML stands for “division”. It’s a **block-level element** used to group other HTML elements together into sections.

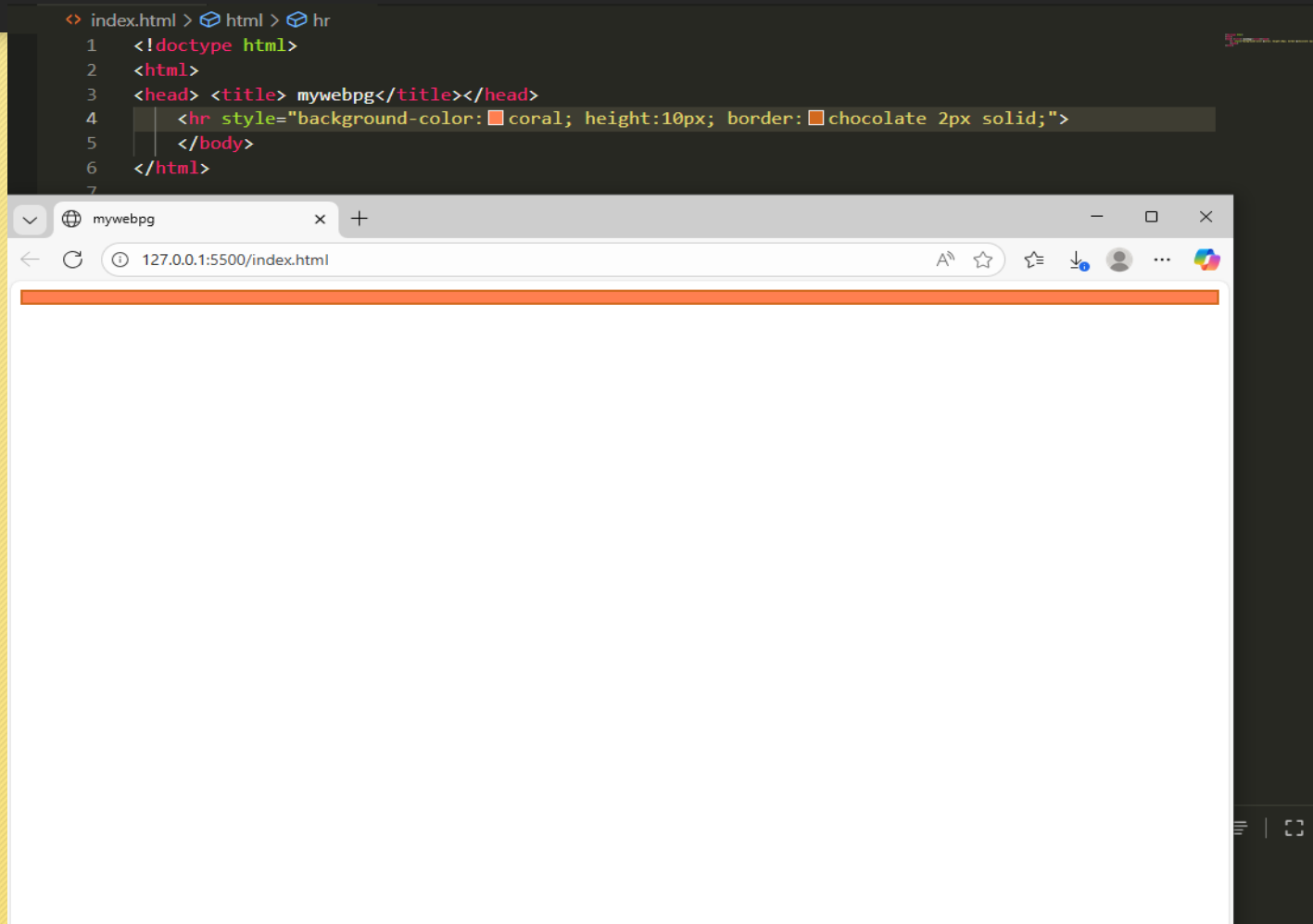


The screenshot displays a code editor window with a file named 'index.html'. The code is as follows:

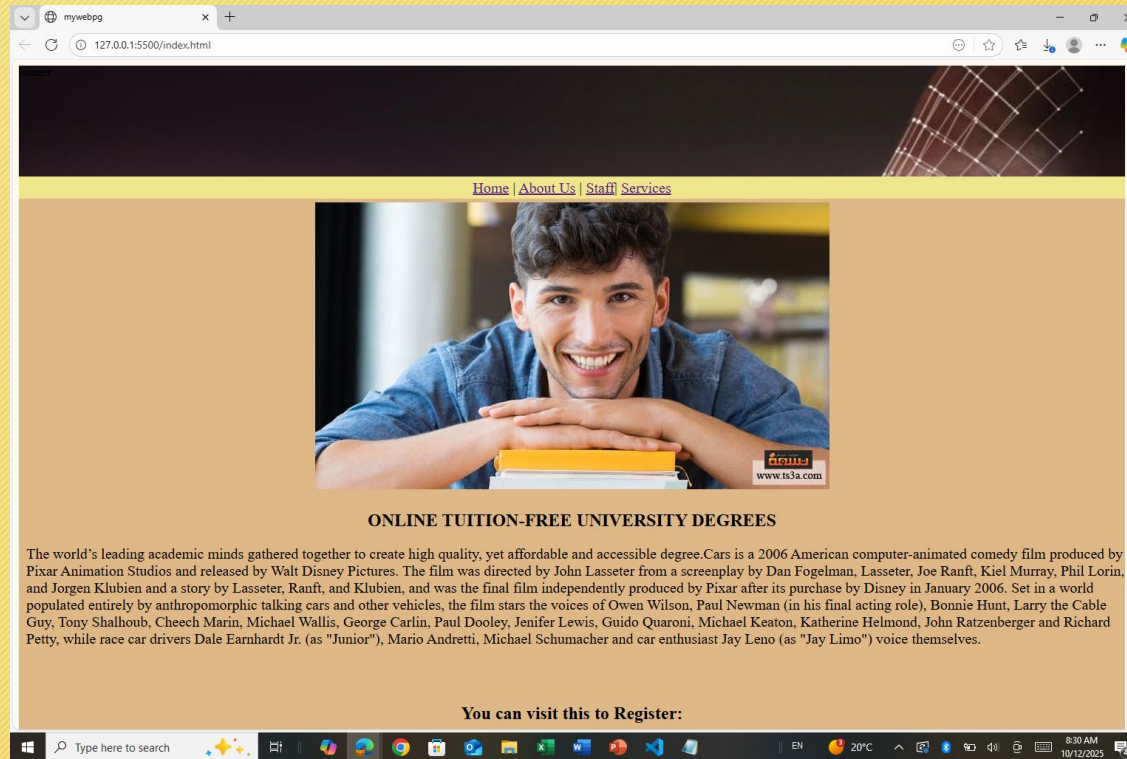
```
1 <!DOCTYPE html>
2 <html>
3   <head><title>formatting text</title> </head>
4   <body>
5     <div style="background-color: peachpuff; padding: 10px;">
6       <h2>HTML Section</h2>
7       <p>HTML defines the structure of a webpage.</p>
8     </div>
9   </body>
10  </html>
```

Below the code editor, a web browser window is shown with the address '127.0.0.1:5500/index.html'. The browser displays the rendered output of the HTML code: a peachpuff-colored rectangular box containing the text 'HTML Section' in bold, followed by the paragraph 'HTML defines the structure of a webpage.'

<hr> style



EX



<> index.html > ...

```
1  <!doctype html>
2  <html>
3  <head> <title> mywebpg</title></head>
4      <body style="background-color: ■ floralwhite">
5          <div style="background-image:url(55.jpeg);background-size:100% ;width:100%;height:150px;border-
6          <div style="background-color: ■ khaki;background-size:100% ;width:100%;height:30px; text-align:center">
7              <nav>
8                  <a href="" >Home</a> |
9                  <a href="" >About Us</a> |
10                 <a href="" >Staff</a>|
11                 <a href="" >Services</a>
12             </nav>
13         </div>
14         <div style="background-color: ■ burlywood;width:100%;height:900px; text-align:center" >
15             <div style="align-content:center"> </div>
16             <article >
17                 <h2>ONLINE TUITION-FREE UNIVERSITY DEGREES</h2>
18                 <p style="font-size: 20px;direction:ltr;text-align:left;margin-left:10px ">The world's lead
19             </article>
20             <br><br>
21             <section>
22                 <h2> You can visit this to Register:</h2>
23                 <a href="" style="font-size:18px "> Http://www.gioschool.com</a>
24             </section>
25         </div>
26         <div style="background-color: ■ brown;width:100%;height:40px; text-align:center;font-size:18px;"
27     </body>
28 </html>
```

Forms

- used to collect user input
- They can include various types of controls like text fields, radio buttons, checkboxes, and submit buttons.
- The user input is most often sent to a server for processing

<Form> element syntax

<input> element can be displayed in many ways depending on the type attribute

```
<form>
```

```
·
```

```
form elements
```

```
·
```

```
</form>
```

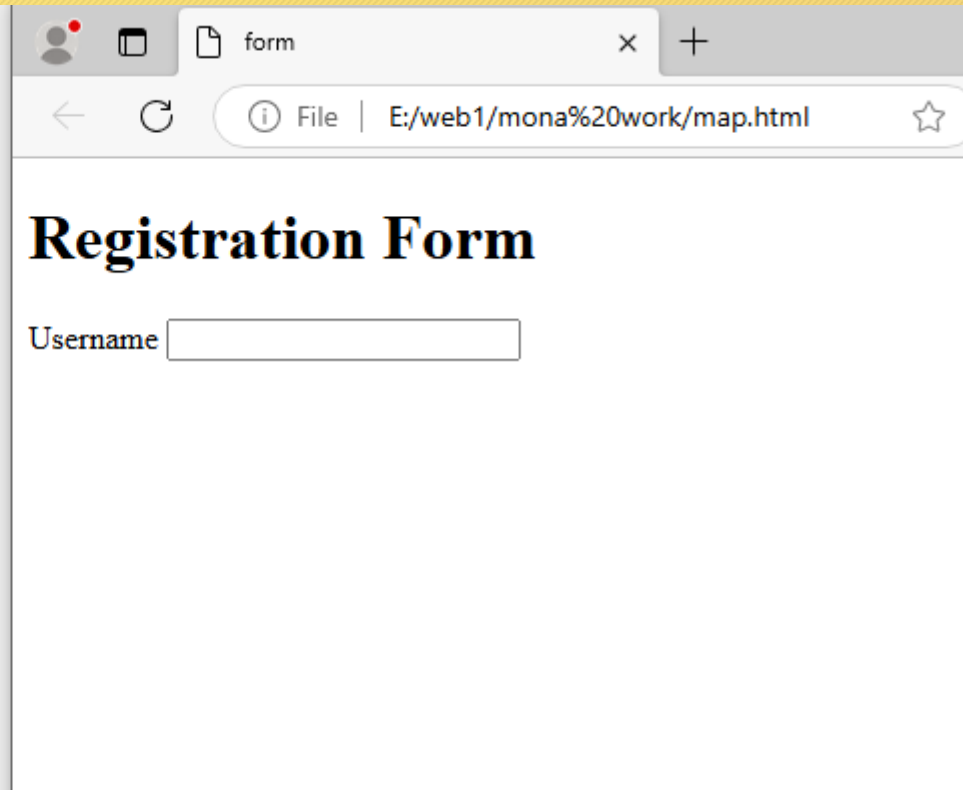

Form Attributes

Attribute	Value	Description
<u>action</u>	<i>URL</i>	Specifies where to send the form-data when a form is submitted
<u>method</u>	<i>get</i> <i>post</i>	Specifies how to send form-data
<u>name</u>	<i>name</i>	Specifies the name for a form
<u>target</u>	<i>_blank</i> <i>_self</i> <i>_parent</i>	Deprecated. Specifies where to open the action URL

Label

- is used to define labels for form controls.

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5
6  <h1>Registration Form</h1>
7  <form >
8      <label>Username</label>
9      <input>
10
11 </form>
12
13 </body>
14
15
16
17 </html>
```



A screenshot of a web browser window. The browser has a single tab titled 'form'. The address bar shows the file path 'E:/web1/mona%20work/map.html'. The page content features a large heading 'Registration Form' in a bold, black, serif font. Below the heading, the text 'Username' is followed by a rectangular text input field.

HTML Input Types

`<input type="button">`

Button

`<input type="checkbox">`



`<input type="color">`



`<input type="date">`

dd-mm-yyyy



`<input type="email">`

farazc60@gmail.com

`<input type="file">`

Choose File

No file chosen

`<input type="hidden">`

`<input type="image">`



`<input type="number">`

5



`<input type="password">`

.....

`<input type="radio">`



`<input type="range">`



`<input type="reset">`

Reset

`<input type="submit">`

Submit

`<input type="text">`

codewithfaraz

`<input type="url">`

<https://www.codewithfaraz.com>



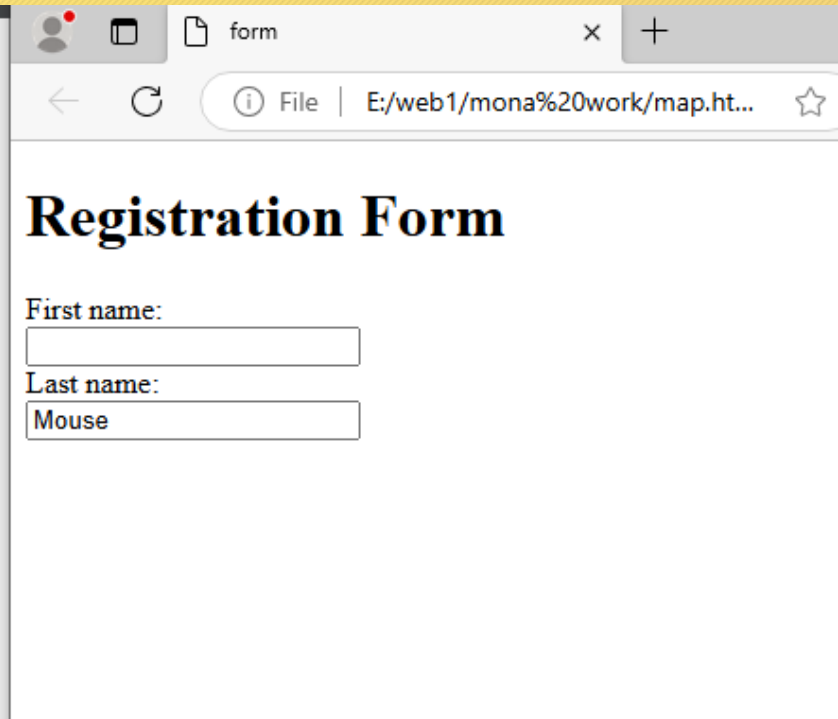
Faraz

@Codewithfaraz

Text Fields

- `<input type="text">` defines a single-line input field for text input.

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <h1>Registration Form</h1>
6  <form >
7    First name:<br>
8    <input type="text" value="">
9    <br>
10   Last name:<br>
11   <input type="text" name="" value="Mouse">
12 </form>
13
14 </body>
15
16 </html>
```



The screenshot shows a web browser window with a single tab titled 'form'. The address bar displays 'File | E:/web1/mona%20work/map.ht...' with a star icon for bookmarks. The main content area features a heading 'Registration Form' in a large, bold, black serif font. Below the heading, there are two text input fields. The first field is preceded by the label 'First name:' and is currently empty. The second field is preceded by the label 'Last name:' and contains the text 'Mouse'.

For Attribute in label

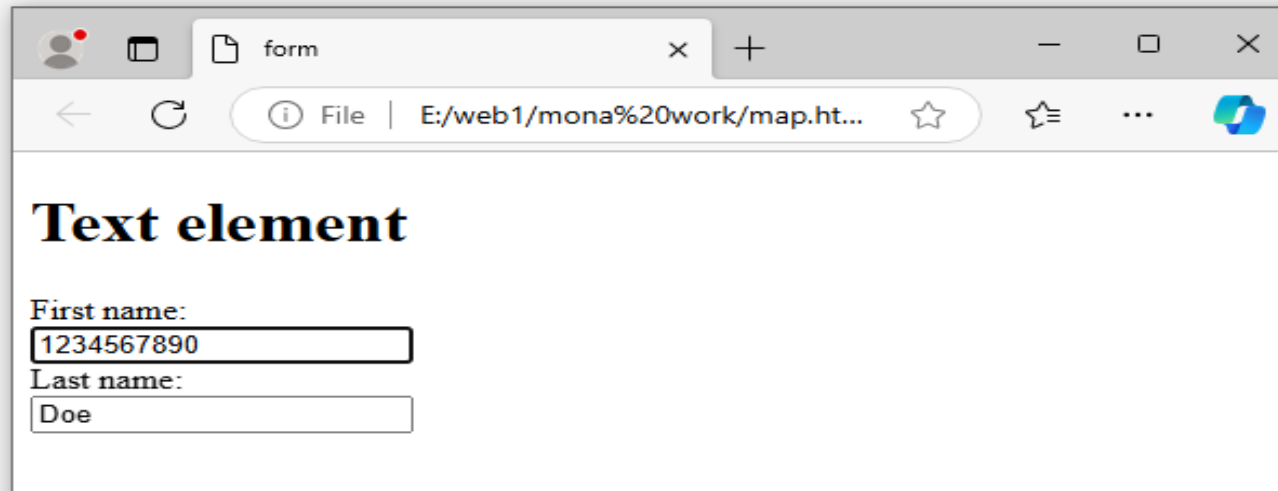
- for : Associates the label with a specific form control. The value should match the id of the input element.

Registration Form

Username: Email: Password:

Text element ex 2

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <h1>Text element</h1>
6  <form>
7    <label for="fname">First name:</label><br>
8    <input type="text" id="fname" placeholder="type your first name" maxlength="10"><br>
9    <label for="lname">Last name:</label><br>
10   <input type="text" id="lname" value="Doe">
11 </form>
12 </body>
13
14 </html>
```



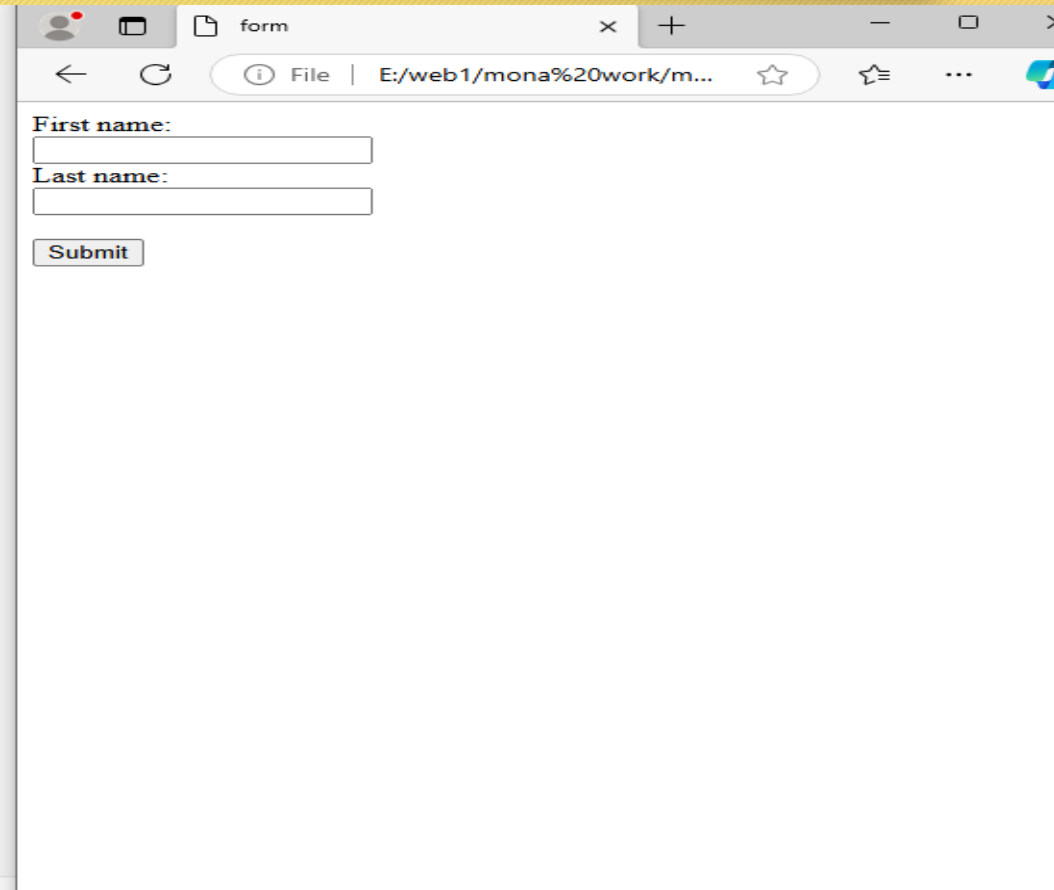
A screenshot of a web browser window. The title bar shows a single tab titled 'form'. The address bar displays the URL 'E:/web1/mona%20work/map.ht...'. The page content features a large heading 'Text element' in a bold, black, serif font. Below the heading, there are two text input fields. The first field is labeled 'First name:' and contains the text '1234567890'. The second field is labeled 'Last name:' and contains the text 'Doe'.

Submit button

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

The Submit Button

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <form>
6    <label for="fname">First name:</label><br>
7    <input type="text" id="fname"><br>
8    <label for="lname">Last name:</label><br>
9    <input type="text" id="lname"><br><br>
10   <input type="submit" value="Submit">
11 </form>
12 </body>
13 </html>
```

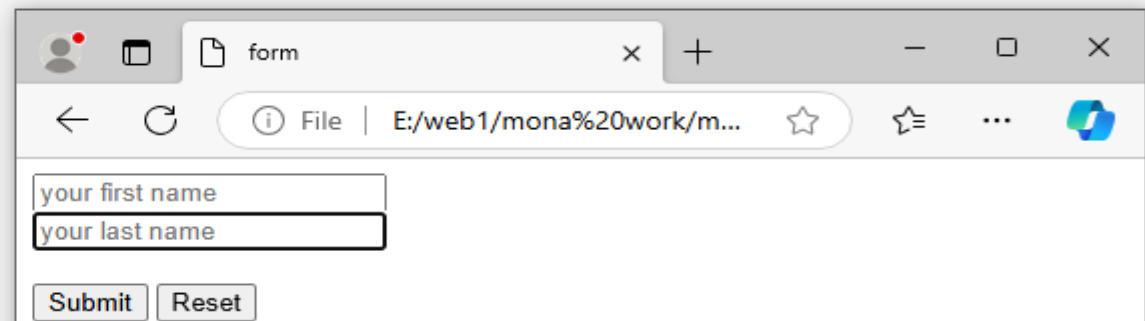


A screenshot of a web browser window titled "form". The address bar shows the file path "E:/web1/mona%20work/m...". The browser displays the rendered HTML form from the code on the left. It features two text input fields, one for "First name:" and one for "Last name:", each preceded by its respective label. Below the input fields is a "Submit" button. The browser's interface includes standard navigation buttons (back, forward, refresh) and a star icon for bookmarks.

reset buttons

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

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <form>
6    <input type="text" id="fname" name="fname" placeholder="your first name"><br>
7    <input type="text" id="lname" name="lname" placeholder="your last name"><br><br>
8    <input type="submit" value="Submit">
9    <input type="reset" value="Reset">
10 </form>
11 </body>
12 </html>
```

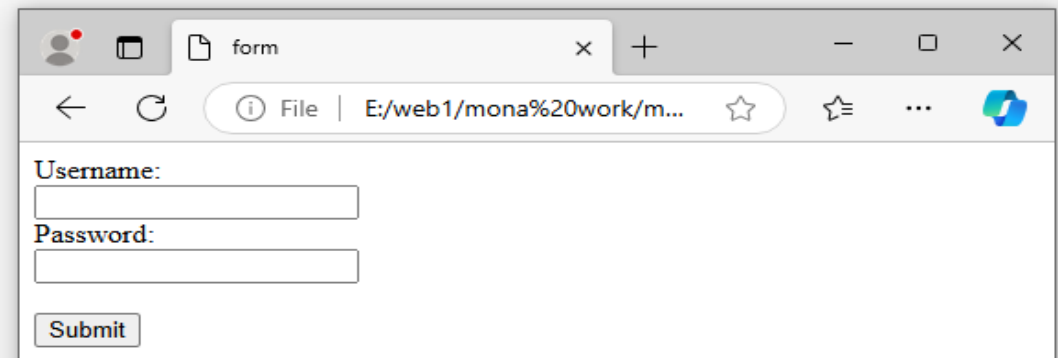


A screenshot of a web browser window titled "form". The address bar shows the file path "E:/web1/mona%20work/m...". The form contains two text input fields with placeholder text "your first name" and "your last name". Below the fields are two buttons labeled "Submit" and "Reset".

Input Type Password

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

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <form>
6      <label for="username">Username:</label><br>
7      <input type="text" id="username" name="username"><br>
8      <label for="pwd">Password:</label><br>
9      <input type="password" id="pwd" name="pwd"><br><br>
10     <input type="submit" value="Submit">
11 </form>
12 </body>
13 </html>
```



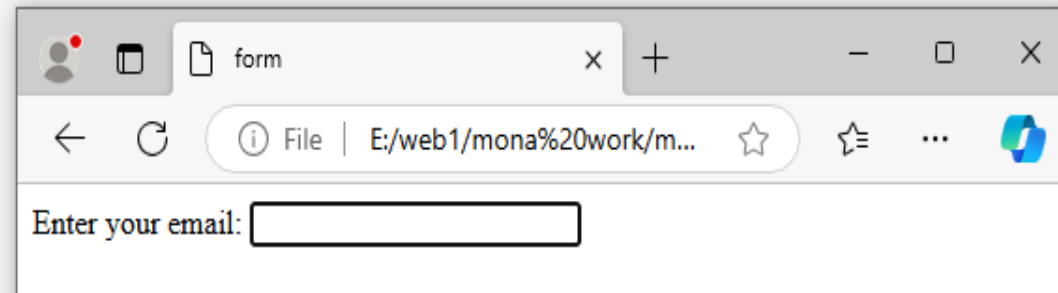
A screenshot of a web browser window showing the rendered HTML form. The browser's address bar displays the file path 'E:/web1/mona%20work/m...'. The form contains two input fields: 'Username:' and 'Password:'. The 'Password:' field is masked with dots. Below the input fields is a 'Submit' button.

Input Type Email

- The `<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.
- Some smartphones recognize the email type, and add ".com" to the keyboard to match email input

Email

```
1 <!doctype html>
2 <html>
3 <head><title> form</title></head>
4 <body>
5 <form>
6     <label for="email">Enter your email:</label>
7     <input type="email" id="email" name="email">
8 </form>
9 </body>
10 </html>
```



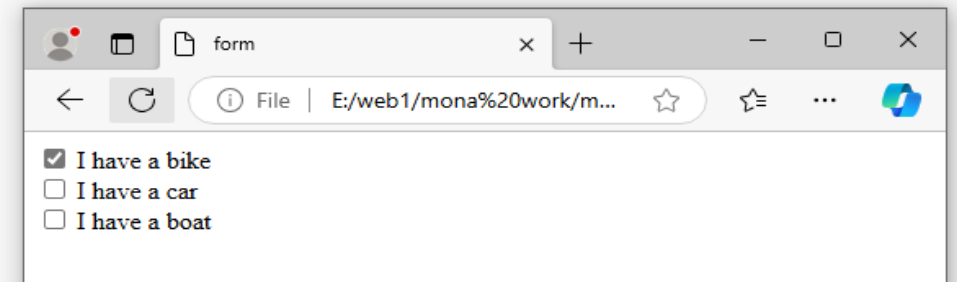
Html code

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <h1>Registration Form</h1>
6  <form action="/submit" method="POST">
7      <label for="username">Username:</label>
8      <input type="text" id="username" name="username" required>
9
10     <label for="email">Email:</label>
11     <input type="email" id="email" name="email" required>
12
13     <label for="password">Password:</label>
14     <input type="password" id="password" name="password" required>
15
16     <input type="submit" value="Register">
17 </form>
18
19 </body>
20
21 </html>
```

Checkbox Buttons

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

```
1 <!doctype html>
2 <html>
3 <head><title> form</title></head>
4 <body>
5 <form>
6   <input type="checkbox" id="vehicle1" name="vehicle1" value="Bike" checked>
7   <label for="vehicle1"> I have a bike</label><br>
8   <input type="checkbox" id="vehicle2" name="vehicle2" value="Car">
9   <label for="vehicle2"> I have a car</label><br>
10  <input type="checkbox" id="vehicle3" name="vehicle3" value="Boat">
11  <label for="vehicle3"> I have a boat</label>
12 </form>
13 </body>
14 </html>
```



form

File | E:/web1/mona%20work/m...

☒ I have a bike
☐ I have a car
☐ I have a boat

example2

```
<!DOCTYPE html>
<html>
<body>
<p>What type of music do you listen to?</p>
<ul>
  <li><input type="checkbox" name="genre" value="punk" checked> Punk
rock</li>
  <li><input type="checkbox" name="genre" value="indie" checked> Indie
rock</li>
  <li><input type="checkbox" name="genre" value="hiphop"> Hip Hop</li>
  <li><input type="checkbox" name="genre" value="rockabilly">
Rockabilly</li>
</ul>

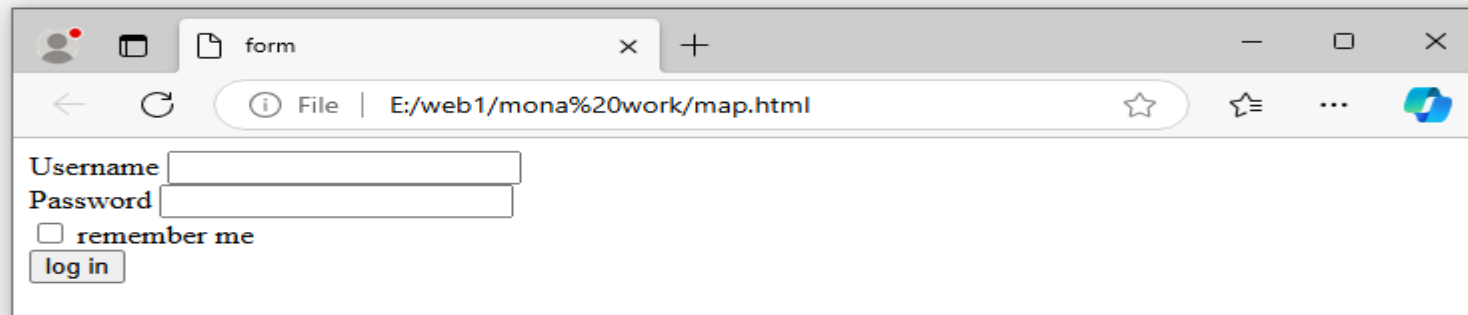
</body>
</html>
```

What type of music do you listen to?

- ☒ Punk rock
- ☒ Indie rock
- ☐ Hip Hop
- ☐ Rockabilly

Example

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <form>
6      <label for="name"> Username</label>
7      <input type="text" id="name" name="name">
8
9      <br>
10     <label for="password"> Password</label>
11     <input type="password" id="password" name="password">
12
13     <br>
14     <input type="checkbox">
15     <label>remember me</label>
16     <br>
17     <input type="submit" value="log in">
18     <br>
19 </form>
20 </body>
21 </html>
```

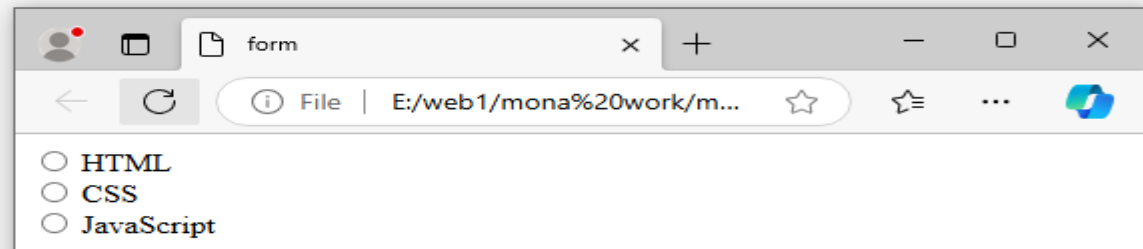


A screenshot of a web browser window showing the rendered HTML form. The browser's address bar displays the file path "E:/web1/mona%20work/map.html". The form contains the following elements: a text input field labeled "Username", a password input field labeled "Password", an unchecked checkbox labeled "remember me", and a "log in" submit button.

Radio Buttons

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

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <form>
6      <input type="radio" id="html" name="fav_language" value="HTML">
7      <label for="html">HTML</label><br>
8      <input type="radio" id="css" name="fav_language" value="CSS">
9      <label for="css">CSS</label><br>
10     <input type="radio" id="javascript" name="fav_language" value="JavaScript">
11     <label for="javascript">JavaScript</label>
12 </form>
13 </body>
14 </html>
```



A screenshot of a web browser window titled "form". The address bar shows the file path "E:/web1/mona%20work/m...". The page content displays three radio buttons for selecting a favorite language: "HTML", "CSS", and "JavaScript". The "HTML" radio button is selected, indicated by a filled circle.

Radio button

```
<!DOCTYPE html>
<html>
<body>
|
<h1>The form element</h1>

<p>How old are you?</p>
<ol>
  <li><input type="radio" name="age" value="under24" checked> under
24</li>
  <li><input type="radio" name="age" value="25-34"> 25 to 34</li>
  <li><input type="radio" name="age" value="35-44"> 35 to 44</li>
  <li><input type="radio" name="age" value="over45"> 45+</li>
</ol>
</body>
</html>
```

The form element

How old are you?

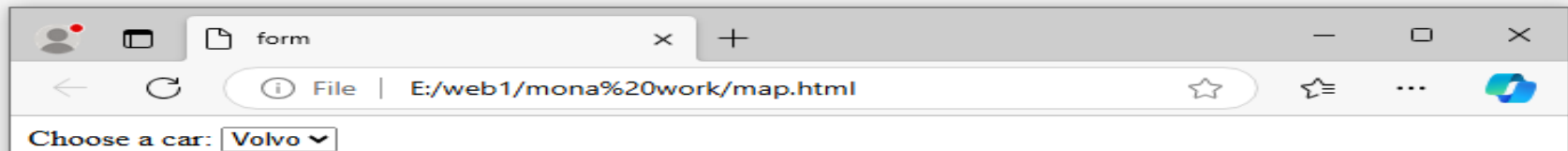
1. ☐ under 24
2. ☐ 25 to 34
3. ☒ 35 to 44
4. ☐ 45+

The select Element(drop down menus)

- The `<select>` element defines a drop-down list:
- The `<option>` element defines an option that can be selected
- Use the `size` attribute to specify the number of visible values
- Use the `multiple` attribute to allow the user to select more than one value:

The select Element(drop down menus example)

```
1  <!doctype html>
2  <html>
3  <head><title> form</title></head>
4  <body>
5  <form>
6  <label for="cars">Choose a car:</label>
7  <select id="cars" name="cars">
8    <option value="volvo">Volvo</option>
9    <option value="saab">Saab</option>
10   <option value="fiat">Fiat</option>
11   <option value="audi">Audi</option>
12 </select>
13 </form>
14 </body>
15 </html>
```



Example2

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>
<p>What is your favorite 80s band?
<select name="EightiesFave">
  <option>The Cure</option>
  <option>Cocteau Twins</option>
  <option>Tears for Fears</option>
  <option>Thompson Twins</option>
  <option value="EBTG">Everything But the Girl</option>
  <option>Depeche Mode</option>
  <option>The Smiths</option>
  <option>New Order</option>
</select>
</p>

</body>
</html>
```

What is your favorite 80s band?

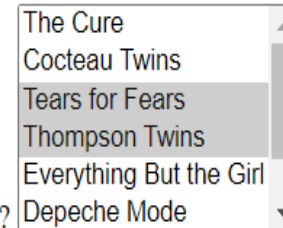
The Cure	▼
The Cure	
Cocteau Twins	
Tears for Fears	
Thompson Twins	
Everything But the Girl	
Depeche Mode	
The Smiths	
New Order	

Convert drop down menu to scroll menu

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>
<p>What 80s bands did you listen to?
<select name="EightiesBands" size="6" multiple>
  <option>The Cure</option>
  <option>Cocteau Twins</option>
  <option selected>Tears for Fears</option>
  <option selected>Thompson Twins</option>
  <option value="EBTG">Everything But the Girl</option>
  <option>Depeche Mode</option>
  <option>The Smiths</option>
  <option>New Order</option>
</select>
</p>

</body>
</html>
```

What 80s bands did you listen to?



The Cure
Cocteau Twins
Tears for Fears
Thompson Twins
Everything But the Girl
Depeche Mode

HTML SVG Graphics

<Scalable Vector Graphics>

- What is the difference between pixel and vector?
- pixel: Composed of a grid of individual pixels, where each pixel represents a specific color. Common formats include JPEG, PNG, and GIF. When scaled up, these images can lose quality and appear blurry or pixelated.
- vector: Made up of paths defined by mathematical equations. These graphics are resolution-independent, meaning they can be scaled to any size without losing quality. Common formats include SVG, AI, and EPS.