

# **ENSF 381**

# **Full Stack Web Development**

## **Lecture 08:**

## **Forms**

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# Outline

- What are forms?
- Form elements
- Input types
- Input attributes
- Structure form inputs

# What are HTML forms?

- HTML forms (`<form>`) are a crucial part of web development, allowing users to interact with web pages by entering and submitting data.
- Used to collect information from users, such as text input, checkboxes, and radio buttons.
- They provide a structured way to gather user input and send it to a server for processing.

# Form Elements

HTML provides several form elements that enable the creation of interactive forms on web pages. Here are some of the key form elements:

- Text Area (`<textarea>`): allows users to input multiline text.
- Dropdown (`<select>`): creates a dropdown list, and it is often used in conjunction with `<option>` elements.
- Button (`<button>`): represents a clickable button, often used to submit a form or trigger a JavaScript function.
- Label (`<label>`): associates a label with a form control.
- Input (`<input>`): used for various types of user input, such as text, password, checkboxes, radio buttons, etc.

# Input types

HTML provides various input types that allow users to enter different types of data in forms. Here is a list of common input types:

- Text Input (`text`)
- Password Input (`password`)
- Checkbox (`checkbox`)
- Radio Button (`radio`)
- Date Input (`date`)
- File Input (`file`)
- Hidden Input (`hidden`)

# Input attributes

HTML `<input>` elements can have various attributes that control their behavior and appearance:

- **name**: provides a name for the input control, which is used to identify the form data when submitted.
- **value**: sets the initial value of the input control.
- **placeholder**: specifies a short hint that describes the expected value of the input field.
- **required**: indicates that the input field must be filled out before submitting the form.
- **disabled**: disables the input control, making it non-editable.
- **maxlength**: specifies the maximum number of characters allowed in the input field.
- **autocomplete**: indicates whether the browser should provide autocomplete suggestions for the input.
- **for**: used in conjunction with the `<label>` element to associate the label with a specific form control, typically an input element.

# Form - example

→ <form>

```
<label for="name">Name:</label>
```

```
<input type="text" id="name" name="username">  
<br>
```

```
<label for="email">Email:</label>
```

```
<input type="text" id="email" name="email">  
<br>
```

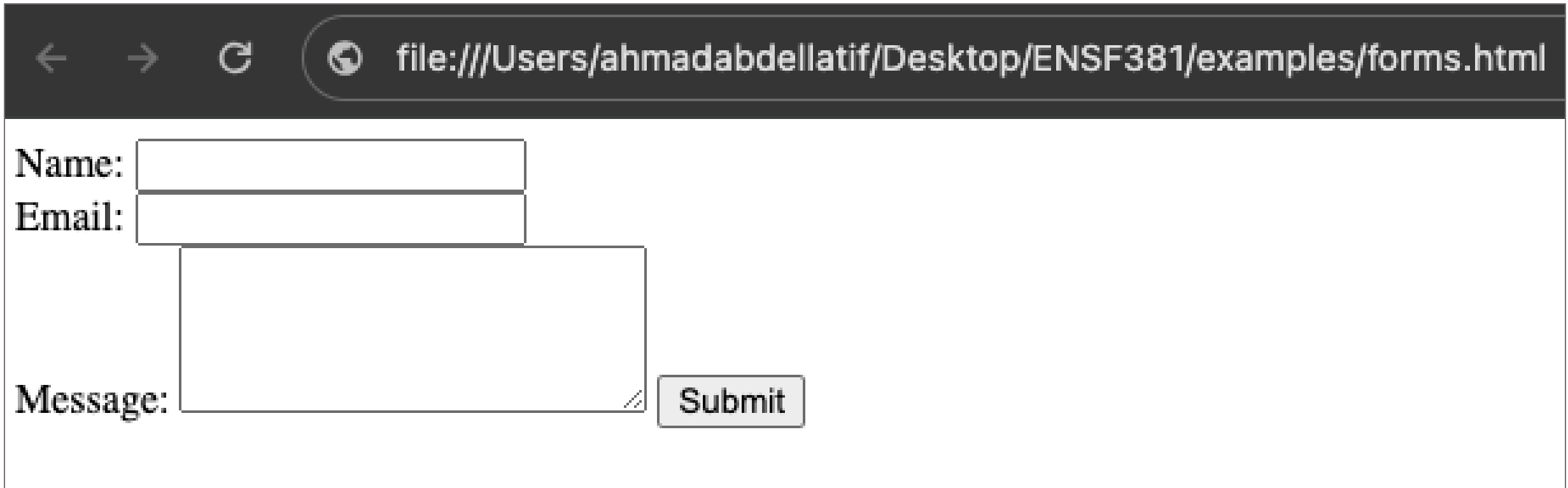
```
<label for="message">Message:</label>
```

```
<textarea id="message" name="message" rows="4"></textarea>
```

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

→ </form>

# Form - example



A screenshot of a web browser window displaying a simple HTML form. The browser's address bar shows the file path: `file:///Users/ahmadabdellatif/Desktop/ENSF381/examples/forms.html`. The form consists of three input fields and a submit button. The first field is labeled "Name:" and is a single-line text input. The second field is labeled "Email:" and is also a single-line text input. The third field is labeled "Message:" and is a larger, multi-line text area. To the right of the message field is a button labeled "Submit".

← → ↻ <file:///Users/ahmadabdellatif/Desktop/ENSF381/examples/forms.html>

Name:

Email:

Message:



# Form – example 2

```
<form>
<label for="name">Name:</label>
<input type="text" id="name" name="name" placeholder="Enter your name">
<br>

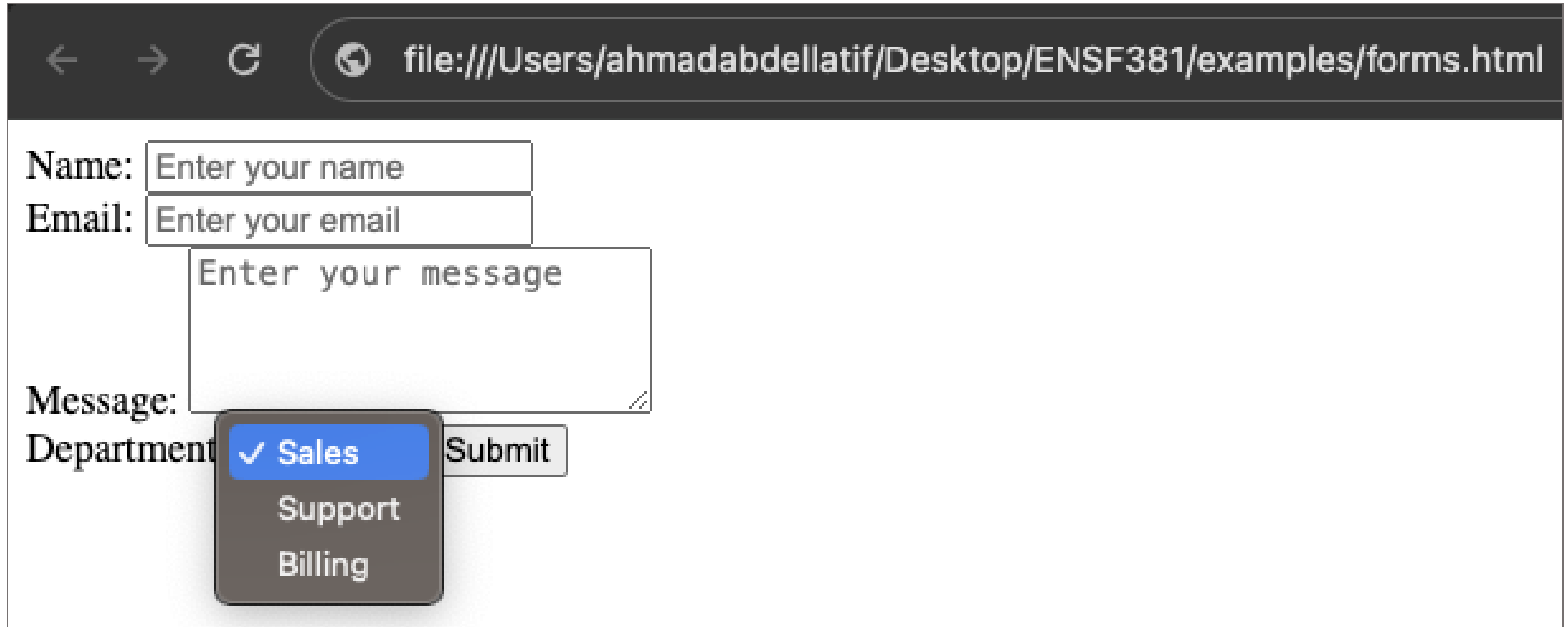
<label for="email">Email:</label>
<input type="text" id="email" name="email" placeholder="Enter your email">
<br>

<label for="message">Message:</label>
<textarea id="message" name="message" rows="4" placeholder="Enter your message"></textarea>
<br>

<label for="department">Department:</label>
<select id="department" name="department">
<option value="sales">Sales</option>
<option value="technical">Support</option>
<option value="payment">Billing</option>
</select>

<button>Submit</button>
</form>
```

# Form – example 2



A screenshot of a web browser window displaying a form. The browser's address bar shows the file path: `file:///Users/ahmadabdellatif/Desktop/ENSF381/examples/forms.html`. The form contains the following elements:

- Name:** A text input field with the placeholder text "Enter your name".
- Email:** A text input field with the placeholder text "Enter your email".
- Message:** A text area with the placeholder text "Enter your message".
- Department:** A dropdown menu with three options: "Sales" (selected, indicated by a checkmark), "Support", and "Billing".
- Submit:** A button labeled "Submit".

# Build a registration form using different input types - example

```
<form>  
  <label for="username">Username:</label>  
  <input type="text" id="username" name="username" placeholder="Enter your  
username">  
  <br>  
  
  <label for="password">Password:</label>  
  <input type="password" id="password" name="password" placeholder="Enter  
your password">  
  <br>  
  
  <label>Subscribe to Newsletter:</label>  
  <input type="checkbox" id="subscribe" name="subscribe" value="yes">  
  <label for="subscribe">Yes, subscribe me to the newsletter</label>  
  <br>
```

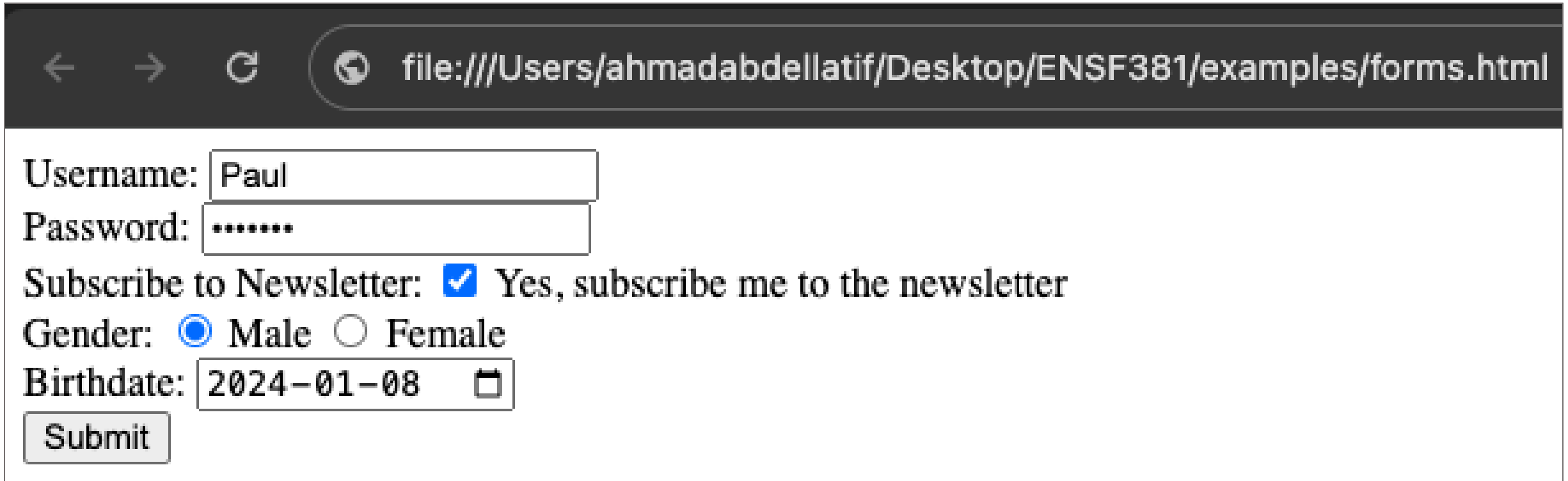
# Build a registration form using different input types - example

```
<label>Gender:</label>
<input type="radio" id="male" name="gender" value="male">
<label for="male">Male</label>
<input type="radio" id="female" name="gender" value="female">
<label for="female">Female</label>
<br>
```

```
<label for="birthdate">Birthdate:</label>
<input type="date" id="birthdate" name="birthdate">
<br>
```

```
<button type="submit">Submit</button>
</form>
```

# Build a registration form using different input types - example



A screenshot of a web browser displaying a registration form. The browser's address bar shows the file path: `file:///Users/ahmadabdellatif/Desktop/ENSF381/examples/forms.html`. The form contains the following fields and controls:

- Username:** A text input field containing the value "Paul".
- Password:** A password input field represented by seven dots.
- Subscribe to Newsletter:** A checkbox that is checked, followed by the text "Yes, subscribe me to the newsletter".
- Gender:** Two radio buttons; "Male" is selected (indicated by a blue dot), and "Female" is unselected.
- Birthdate:** A date input field showing "2024-01-08" with a calendar icon to its right.
- Submit:** A button labeled "Submit" located at the bottom left of the form.

# Add restrictions to the input elements - example

```
<form>
  <label for="username">Username:</label>
  <input type="text" id="username" name="username" placeholder="Enter your username" required>
  <br>

  <label for="password">Password:</label>
  <input type="password" id="password" name="password" placeholder="Enter your password" required>
  <br>

  <label for="disabledInput">Disabled Input:</label>
  <input type="text" id="disabledInput" name="disabledInput" placeholder="This is disabled" disabled>
  <br>

  <label for="limitedText">Limited Text:</label>
  <input type="text" id="limitedText" name="limitedText" maxlength="10" placeholder="Up to 10
characters">
  <br>

  <label for="defaultText">Default Value:</label>
  <input type="text" id="defaultText" name="defaultText" value="Default Value">
  <br>
  <button type="submit">Submit</button>
</form>
```

# Add restrictions to the input elements - example

file:///Users/ahmadabdellatif/Desktop/ENSF381/examples/forms.html

Username:

Password:

Disabled Input:

Limited Text:

Default Value:

Does not accept more than 10 characters

If we click on 'Submit' while leaving fields empty

file:///Users/ahmadabdellatif/Desktop/ENSF381/examples/forms.html

Username:

Password:

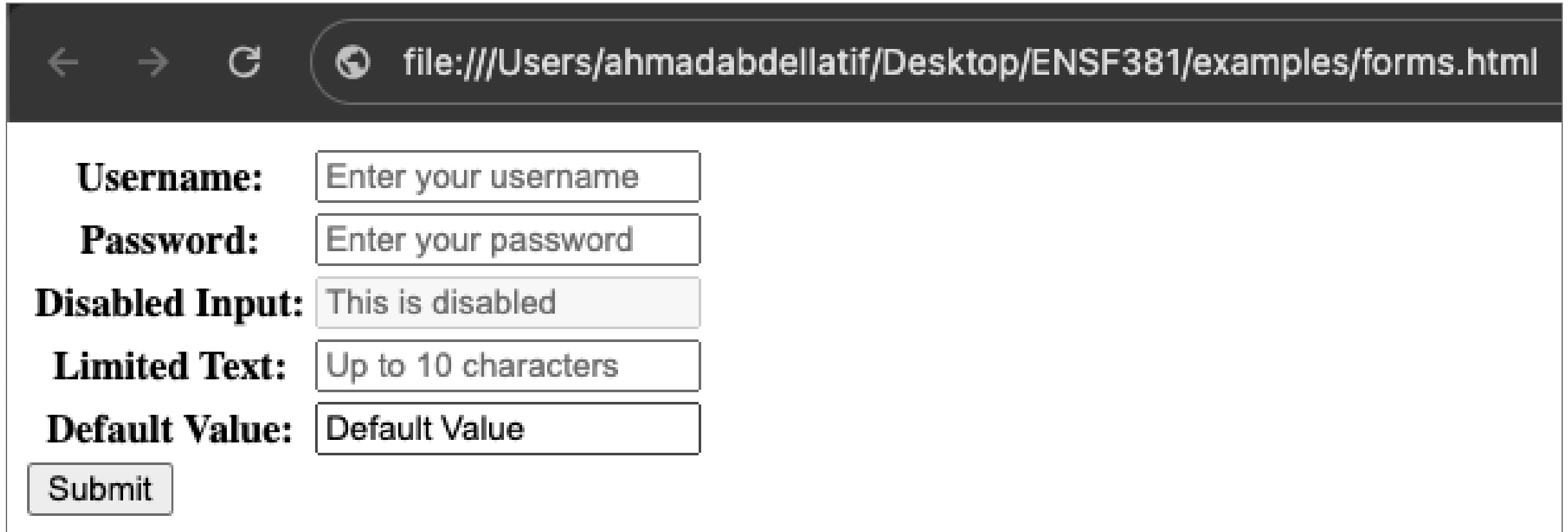
Disabled Input:

Limited Text:

Default Value:

! Please fill out this field.

# How to structure the form inputs?



A screenshot of a web browser window displaying a form. The address bar shows the file path: `file:///Users/ahmadabdellatif/Desktop/ENSF381/examples/forms.html`. The form contains the following elements:

- Username:** A text input field with the placeholder text "Enter your username".
- Password:** A text input field with the placeholder text "Enter your password".
- Disabled Input:** A text input field with the value "This is disabled", which is visually disabled (grayed out).
- Limited Text:** A text input field with the value "Up to 10 characters".
- Default Value:** A text input field with the value "Default Value".
- Submit:** A button labeled "Submit".



# How to structure the form inputs?

```
<form>
  <table>
    <tr>
      <th><label for="username">Username:</label></th>
      <td><input type="text" id="username" name="username" placeholder="Enter
your username" required></td>
    </tr>
    <tr>
      <th><label for="password">Password:</label></th>
      <td><input type="password" id="password" name="password"
placeholder="Enter your password" required> </td>
    </tr>
    <tr>
      <th><label for="disabledInput">Disabled Input:</label></th>
      <td><input type="text" id="disabledInput" name="disabledInput"
placeholder="This is disabled" disabled></td>
    </tr>
```

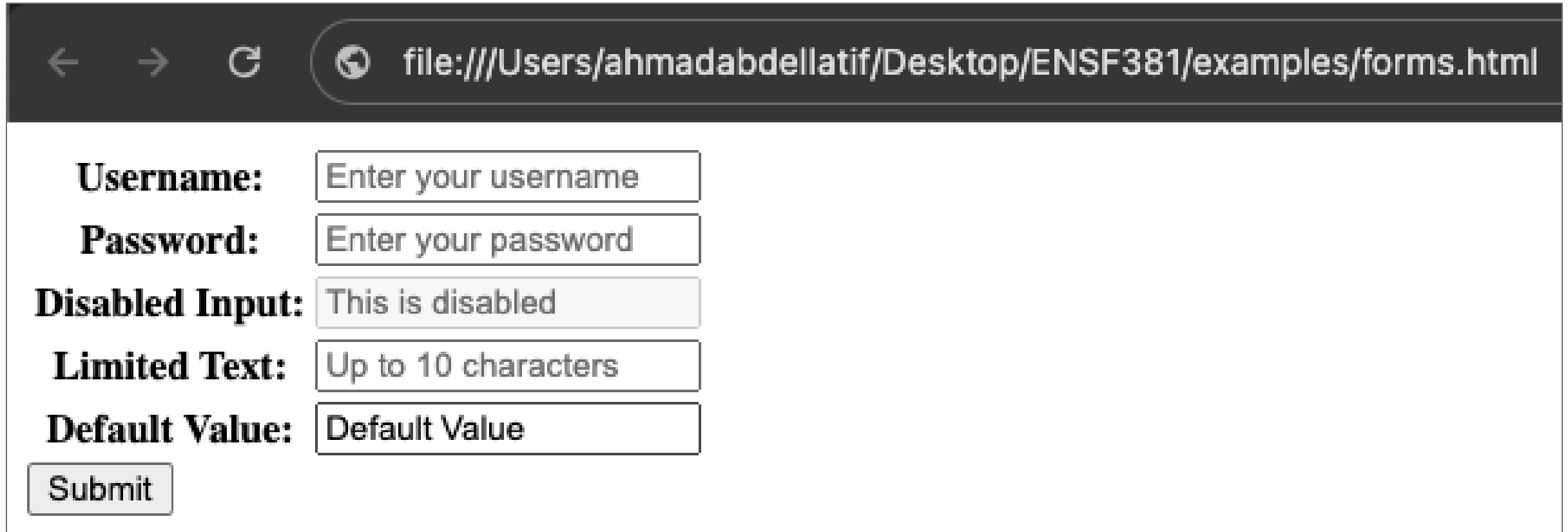
# How to structure the form inputs?

```
<tr>
  <th><label for="limitedText">Limited Text:</label></th>
  <td><input type="text" id="limitedText" name="limitedText"
maxlength="10" placeholder="Up to 10 characters"></td>
</tr>

<tr>
  <th><label for="defaultText">Default Value:</label></th>
  <td><input type="text" id="defaultText" name="defaultText"
value="Default Value">
  </td>
</tr>
</table>
<button type="submit">Submit</button>

</form>
```

# How to structure the form inputs?



A screenshot of a web browser window displaying a form. The address bar shows the file path: `file:///Users/ahmadabdellatif/Desktop/ENSF381/examples/forms.html`. The form contains the following elements:

- Username:** A text input field with the placeholder text "Enter your username".
- Password:** A text input field with the placeholder text "Enter your password".
- Disabled Input:** A text input field with the placeholder text "This is disabled", which is visually disabled (grayed out).
- Limited Text:** A text input field with the placeholder text "Up to 10 characters".
- Default Value:** A text input field with the placeholder text "Default Value".
- Submit:** A button labeled "Submit".

# Questions

