LAB 02 – HTML5 FORM

This practice will be divided into three parts:

Part 01: HTML Form

Part 02: Practical exercises with instructions

Part 03: Self-practice exercises

A. PART 01

I/. HTML Form overview

1/. What is the HTML form?

An HTML form is used to collect user input. The user input is most often sent to a server for processing.

The web is shift from reading a network of pages to a place where getting information done. For example email address, credit card, signing petitions, searching a site, and posting a tweet. These interactions are handled by forms.

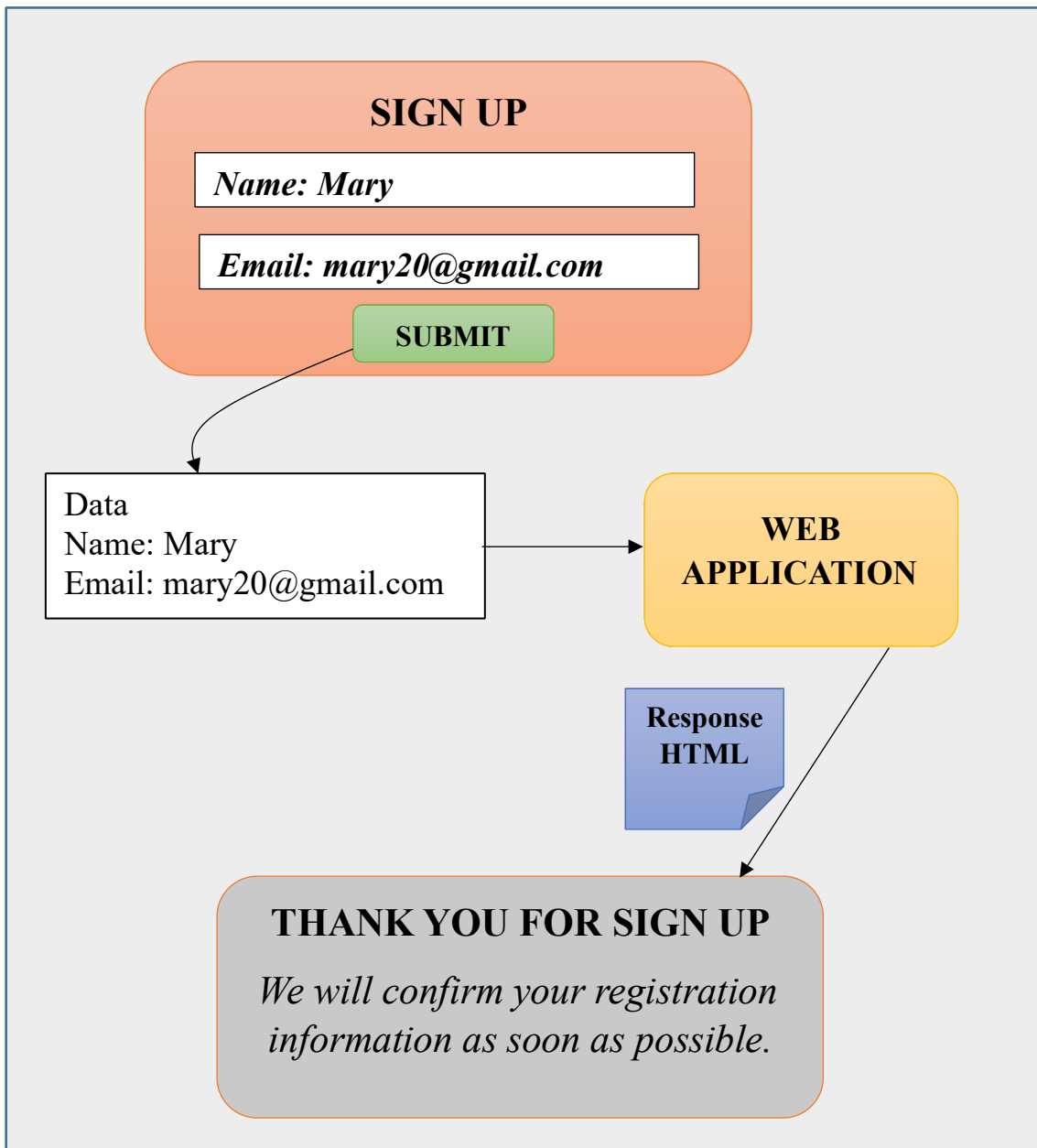**Form example**

2/. What is the < form> element?

The HTML <form> element is used to create an HTML form for user input. The <form> element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

3/. How do the form work?

To understand what is happening behind the scenes when creating web forms, a simple form is used as an example to trace the steps of a transaction that gathers names and email addresses for a mailing list. It is typical of the process for many forms.

-        The visitor opens the page with a web form in the browser window. The browser sees the form control elements in the markup and renders them with the appropriate form controls on the page, including two text entry fields and a submit button as shown in the Figure below.

-        The visitor would like to sign up for this mailing list, the name and email addresses are entered into the fields and submit the form by hitting the Submit button.

-        The browser collects the entered information, encodes it, and sends it to the web application on the server.

-        The web application accepts the information and processes it (that is, does whatever it is programmed to do with it). In this example, the name and email address are added to a database.

-        The web application also returns a response. The kind of response sent back depends on the content and purpose of the form. Here, the response is a web page that contains thanks for signing up for the mailing list. Other applications might respond by reloading the HTML form page with updated information, by moving the user on to another related form page, or by issuing an error message if the form is not filled out correctly.

-        The server sends the web application's response back to the browser where it is displayed.

 4/. HTM Form Attributes

a/. The "action" attribute

The action attribute defines the action to be performed when the form is submitted. Usually, the form data is sent to a file on the server when the user clicks on the submit button.

b/. The "target" attribute

The target attribute specifies where to display the response that is received after submitting the form.

The target attribute can have one of the following values:

Value	Description
_blank	The response is displayed in a new window or tab
_self	The response is displayed in the current window
_parent	The response is displayed in the parent frame
_top	The response is displayed in the full body of the window
framename	The response is displayed in a named iframe

c/. The "method" attribute

The method attribute specifies the HTTP method to be used when submitting the form data.

The form-data can be sent as URL variables (with method="get") or as HTTP post transaction (with method="post").

The default HTTP method when submitting form data is GET.

II/. HTML Form Elements

1/. The <label> Element

<label>....</label>

The <label> element defines a label for several form elements.

The <label> element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focus on the input element.

The <label> element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the <label> element, it toggles the radio button/checkbox.

The "for" attribute of the <label> tag should be equal to the id attribute of the <input> element to bind them together.

2/. The <input> Element

One of the most used form element is the <input> element.

The <input> element can be displayed in several ways, depending on the type attribute.

HTML Input Types: a/.

Input Type Text:

<div style="background:#cccccc; text-align:center">

<input type="text">

</div>

Input type text defines a **single-line** text input field.

Example:

I want you to create a form below:

Name:
Please input your name

Email:
Please input your email

You can try:

```html
<form action="xyz.php" target="_blank" method="post">
    <label>Name:</label><br>
    <input type="text" placeholder="Please input your name"> <br>
    <label>Email:</label><br>
    <input type="text" placeholder="Please input your email">
</form>
```

b/. Input Type Password:

<div style="background:#cccccc; text-align:center">

<input type="password">

</div>

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

Example:

I want you to create a form below:

Username:
Mary Wong

Password:
Password

You can try:

```
<form action="xyz.php" target="_blank" method="post">
    <label>Username:</label><br>
    <input type="text" value="Mary Wong" disabled> <br>
    <label>Password:</label><br>
    <input type="password" placeholder="Password">
</form>
```

c/. Input Type Submit

<input type="submit" value="...." >

Input type submit defines a button for submitting form data to a form-handler.

The form-handler is typically a server page with a script for processing input data.

The form-handler is specified in the form's action attribute.

Example:

I want you to create a form below:

Company name:
Please type company name
Company address:
Please type company address

Submit

You can try:

```
<form action="xyz.php" target="_blank" method="post">
    <label>Company name:</label><br>
    <input type="text" placeholder="Please type company name" size="32"> <br>
    <label>Company address:</label><br>
    <input type="text" placeholder="Please type company address" size="32"> <br><br>
    <input type="submit" value="Submit">
</form>
```

d/. Input Type Reset

<input type="reset" value="...." >

Input type reset defines a reset button that will reset all form values to their default values.

Example:

I want you to create a form below:

Company name:
Please type company name
Company address:
Please type company address

Submit Reset

You can try:

```
<form action="xyz.php" target="_blank" method="post">
    <label>Company name:</label><br>
    <input type="text" placeholder="Please type company name" size="32"> <br>
    <label>Company address:</label><br>
    <input type="text" placeholder="Please type company address" size="32"> <br><br>
    <input type="submit" value="Submit">
    <input type="reset" value="Reset">
</form>
```

e/. Input Type Radio

<input type="radio" value="...." name="...." >

Radio buttons let a user select ONLY ONE of a limited number of choices.

Example:

I want you to create a HTML content as below:

Question: What is your favorite subject?

◉ Math
○ Chemistry
○ Biology

You can try:

```
<p>Question: What is your favorite subject?</p>
<form>
    <input type="radio" id="math" name="fav_subject" value="Math" checked>
    <label id="math">Math</label><br>
    <input type="radio" id="chemistry" name="fav_subject" value="Chemistry">
    <label id="chemistry">Chemistry</label><br>
    <input type="radio" id="biology" name="fav_subject" value="Biology">
    <label id="biology">Biology</label>
</form>
```

e/. Input Type Checkbox

```
<input type="checkbox" value="...." name="...." >
```

Checkboxes let a user select ZERO or MORE options of a limited number of choices.

Example:

I want you to create a HTML content as below:

Question: What is your favorite fruits? I hear that you love mango, so I choose for you!

☑ Mango
☐ Apple
☐ Orange
☐ Banana

You can try:

```
<p>Question: What is your favorite fruits? I hear that you love mango, so I choose for you!</p>
<form>
    <input type="checkbox" id="mango" name="mango" value="mango" checked disabled>
    <label>Mango</label><br>
    <input type="checkbox" id="apple" name="apple" value="apple">
    <label>Apple</label><br>
    <input type="checkbox" id="orange" name="orange" value="orange">
    <label>Orange</label><br>
    <input type="checkbox" id="banana" name="banana" value="banana">
    <label>Banana</label>
</form>
```

f/. Input Type Button

```
<input type="button" value="...." >
```

It defines a button on form.

Example:

```
<form>
    <input type="button" value="Click me!">
</form>
```

g/. Input Type Color:

<input type="color">

Input Type Color is used for input fields that should contain a color.

Depending on browser support, a color picker can show up in the input field.

Example:

```
<form>
    <label>Please choose your color: </label>
    <input type="color">
</form>
```

h/. Input Type Date:

<input type="date">

Input type date is used for input fields that should contain a date.

Depending on browser support, a date picker can show up in the input field.

Example:

```
<form>
    <label>Please choose your birthday: </label>
    <input type="date">
</form>
```
i/.

Input Type Image:

<input type="image" src=" " alt=" " width=" " height=" ">

Input type image defines an image as a submit button.

The path to the image is specified in the src attribute.

Example:

```
<form>
    <label>Please click this button: </label>
    <input type="image" src="./images/click.png" alt="This is a button" width="40" height="40">
</form>
```

j/. Input Type File:

<input type="file">

Input type file defines a file-select field and a "Browse" button for file uploads.

Example:

```
<form>
    <label>Please choose your file: </label>
    <input type="file" name="Browse">
</form>
```

k/. Input Type Hidden:

<input type="hidden">

Input type hidden defines a hidden input field (not visible to a user).

A hidden field lets web developers include data that cannot be seen or modified by users when a form is submitted.

A hidden field often stores what database record that needs to be updated when the form is submitted.

Note: While the value is not displayed to the user in the page's content, it is visible (and can be edited) using any browser's developer tools or "View Source" functionality. Do not use hidden inputs as a form of security!

l/. Input Type Number:

<input type="number">

Input type number defines a numeric input field.

You can also set restrictions on what numbers are accepted.

Example:

```
<form>
    <label>Please choose a number: </label>
    <input type="number">
</form>
```

3/. The <select> Element

```
<select>

<option>Option 1</option> <option>Option

2</option>

</select>
```

The <select> element defines a drop-down list.

The <option> elements defines an option that can be selected.

By default, the first item in the drop-down list is 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.

Example:

```
<form>
    <label>Choose a hobby:</label>
    <select name="hobbies" id="sl_hobby">
        <option value="travel">Travelling</option>
        <option value="reading">Reading Books</option>
        <option value="listen">Listen to music</option>
    </select>
</form>
```

4/. The <textarea> Element

```
<textarea name="..." rows="..." cols="...">Content</textarea>
```

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

The "rows" attribute specifies the visible number of lines in a text area.

The "cols" attribute specifies the visible width of a text area. Example:

```
<form>
    <textarea rows="10" cols="30">
        This is a message!
    </textarea>
</form>
```

5/. The <button> Element

<button type="button">Name button</button>

The <button> element defines a clickable button.

Note: Always specify the type attribute for the button element. Different browsers may use different default types for the button element.

Example:

```
<form>
    <button type="button">Click me!</button>
</form>
```

B. PART 02

I have a form like this:

First name: [_____]
Education: ☐ Graduate ☐ Post Graduate
Gender: ○ Male ○ Female
Salary: [_____]
Remarks: [Type your text here]
Country: [Australia ▼]
[SUBMIT] [RESET]

I want you to create a form on HTML page.

You can try this:

```html
<form>
    <table>
        <tr>
            <td align="right">First name:</td>
            <td><input type="text" size="40"></td>
        </tr>
        <tr>
            <td align="right">Education:</td>
            <td>
                <input type="checkbox" name="graduate"> Graduate
                <input type="checkbox" name="post_graduate"> Post Graduate
            </td>
        </tr>
        <tr>
            <td align="right">Gender:</td>
            <td>
                <input type="radio" name="gender"> Male
                <input type="radio" name="gender"> Female
            </td>
        </tr>
        <tr>
            <td align="right">Salary:</td>
            <td><input type="text" size="40"></td>
        </tr>
        <tr>
            <td align="right">Remarks:</td>
            <td><textarea rows="4" cols="32">Type your text here</textarea></td>
        </tr>
            <tr>
                <td align="right">Country:</td>
                <td>
                    <select name="country">
                        <option value="australia">Australia</option>
                        <option value="vietnam">Viet Nam</option>
                        <option value="thailand">Thai Lan</option>
                    </select>
                </td>
            </tr>
            <tr>
                <td colspan="2" align="center">
                    <input type="submit" value="SUBMIT">
                    <input type="reset" value="RESET">
                </td>
            </tr>
        </table>
    </form>
```

C. PART 03

Create HTML Forms below:

1/. Form 01

Clues: input type range, datalist

2/. Form 02

REGISTRATION

Username:

Password:

Re-type Password:

Birthday: [select one] ▾ , [____] , [____] (Month Day, Year)

Images: Choose File No file chosen

[____] Last Name: [____]

Interests (optional):

☐ Entertainment   ☐ Business
☐ Home & Family   ☐ Computers & Technology
☐ Health   ☐ Personal Finance
☐ Music   ☐ Small Business

[select one]
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March
April
May
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July
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November
December

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