GIFT School of Engineering and Applied Sciences

Fall 2022

CS-120 Introduction to Information and Communication Technology

Lab-12 Manual

HTML Forms

Introduction to Lab-12:

In this Lab Students will learn about HTML forms:

- Input:
    - Text
    - Password
    - Email
    - Submit
    - Date
    - Radio
    - Checkbox
    - Submit
    - Reset
- Button
    - onclick Event
- Dropdowns
    - select
    - datalist
- Form elements attributes

1. HTML Forms

Form is used to collect user information.

We create HTML form by the following tag:

<form>

.

.

.

</form>

Inside of a form there are form elements like Name, Father's name, Email, Date of birth, Password, Gender, Previous Degrees, Buttons.

To take above mentioned user information we use form elements inside form tag.

Form Input Elements

<input type="text">	One line text input field
<input type="password">	Password field
<input type="submit">	Submit button
<input type="reset">	Reset button
<input type="email">	Input field
<input type="radio">	Radio button Select only one option
<input type="checkbox">	Checkbox field Select multiple options
<input type="button">	Button
<input type="color">	Color field
<input type="date">	Date field
<input type="file">	File input field
<input type="month">	Input field for month and year
<input type="number">	Number input
<input type="range">	Slider for selecting range
<input type="tel">	Telephone number
<input type="url">	Input URL

Apart from Input element, there are other form elements as well.

Each form element has a **tag, name, value.**

name is used to identify form elements. If there is no name for a form element then the data of that element is not passed to server.

The user input is **value** of form element. We can also define initial value using attribute **value**.

Let's create a simple form for sign up to a website for students.

2. Sign up form

This form will contain following information:

- Name
- Father's Name
- Email
- Date of birth
- Gender
- Previous Degree
- Password
- Submit button
- Reset button

Follow the steps

1. First create a form by using form tag <form></form>

2. For Name, add input of type text:

```
<form>
Name: <br>
<input type="text" name="name" placeholder="John"> <br>

</form>
```

This will create an input field for Name. Placeholder attribute is used here.

```
Name:
John
```

3. For Father's name, add input of type text:

```
Father's Name:<br>
<input type="text" name="fname" placeholder="Peter"><br>
```

This will create an input field for Father's name.

```
Name:
John
Father's Name:
Peter
```
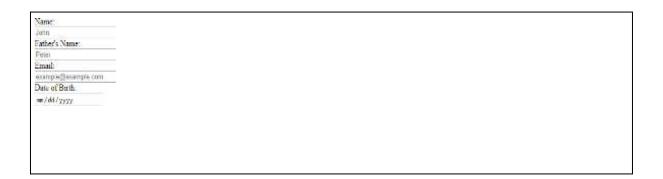
4. For email add input of type email:

```
Email:<br>
<input type="email" name="email" placeholder="example@example.com" required><br>
```

Required attribute is used. The user must enter email for sign up.

```
Name:
John
Father's Name:
Peter
Email:
example@example.com
```

5. Now add input for Date of birth:

```
Date of Birth:<br>
<input type="date" name="dob" required><br>
```

```
Name:
John
Father's Name:
Peter
Email:
example@example.com
Date of Birth:
mm/dd/yyyy
```

6. Now for gender, add radio buttons

7. For Previous degree, add Check boxes

8. For Password, add password field

```html
Gender:<br>
<input type="radio" name="gender" value="male" checked> Male<br>
<input type="radio" name="gender" value="female"> Female<br>
Previous Degrees:<br>
<input type="checkbox" name="degree1" value="matric">Matric<br>
<input type="checkbox" name="degree2" value="intermediate">Intermediate<br>
<input type="checkbox" name="degree3" value="graduate">Graduate<br>
<input type="checkbox" name="degree 4" value="postgraduate">Post Graduate<br>
Password:<br>
<input type="password" name="password" maxlength="10"><br>
```

Radio button is used to select one value hence name of both radio buttons is same.

Checkbox is used to select multiple values, hence name of all checkboxes is different.

Max length of password is set using attribute **maxlength**.

There are other attributes for form elements also:

autocomplete	Autocomplete for inputs is on or off
autofocus	Autofocus on input when page loads

min and max	Min and max value for input
multiple	Multiple selection is enabled
placeholder	Placeholder value can be specified for input
required	Input is required to submit form
step	Specifies number invertals
size	Size of input field(in characters)
readonly	Input value cannot be changed
disabled	Input field is disabled
checked	Default value for radio
list	Points to datalist elements containing predefined options to select.

9. Now add a button to submit the form data.

```
<input type="submit" name="submit" value="Sign up">
```

10. Add reset button to reset the form.

```
<input type="reset" name="reset" value="Reset">
```

Now the form will look like the following:

Name:
John
Father's Name:
Peter
Email:
example@example.com
Date of Birth:
mm/dd/yyyy
Gender:
* Male
○ Female
Previous Degrees:
□ Matric
□ Intermediate
□ Graduate
□ Post Graduate
Password:

Sign up   Reset

After pressing Sign up button, the data goes to server and user's account is created. At this time contacting server is not our task.

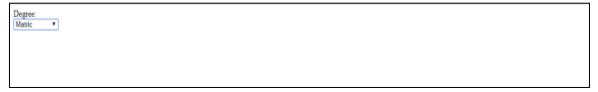There are some other form elements other than input.

Let's create some other form elements.

3. Form 2

1. Create a new webpage.

2. Create a new form <form></form>

3. Add a Degree dropdown:

```
Degree:<br>
<select name="degree">

<option>Matric</option>
<option>Intermediate</option>
</select><br>
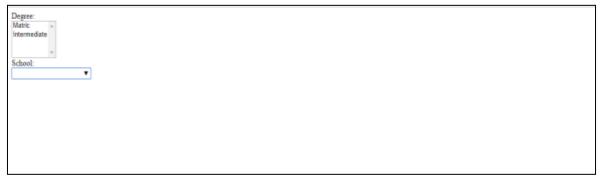```

This will create a dropdown with values given in option:

Degree:
Matric ▼

4. Add attribute multiple to select multiple value at one time:

Degree:
Matric
Intermediate

5. Add another drop down by following way:

```
School:<br>
<input name="dropdown" list="school">
<datalist id="school">
<option>SEAS</option>
<option>SFADA</option>
</datalist>
```

Degree:
Matric
Intermediate

School:
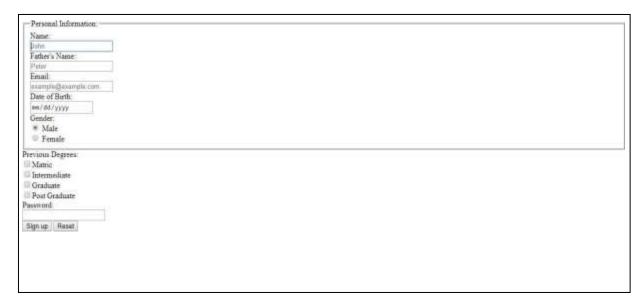
Group data using field set

We can use a tag <fieldset></fieldset> around some form elements of related information to group them together.

1. In form 1, create a field set around some form elements and add label using the tag <legend>.

```html
<fieldset>
<legend>Personal Information:</legend>
Name: <br>
<input type="text" name="name" placeholder="John" autofocus> <br>
Father's Name:<br>
<input type="text" name="fname" placeholder="Peter"><br>
Email:<br>
<input type="email" name="email" placeholder="example@example.com" required><br>

Date of Birth:<br>
<input type="date" name="dob" required min="1990-12-31" max="2000-12-31"><br>

Gender:<br>
<input type="radio" name="gender" value="male" checked> Male<br>
<input type="radio" name="gender" value="female"> Female<br>
</fieldset>

Previous Degrees:<br>
<input type="checkbox" name="degree1" value="matric">Matric<br>
<input type="checkbox" name="degree2" value="intermediate">Intermediate<br>
<input type="checkbox" name="degree3" value="graduate">Graduate<br>
<input type="checkbox" name="degree 4" value="postgraduate">Post Graduate<br>
Password:<br>
<input type="password" name="password" maxlength="10"><br>

<input type="submit" name="submit" value="Sign up">
<input type="reset" name="reset" value="Reset">
```
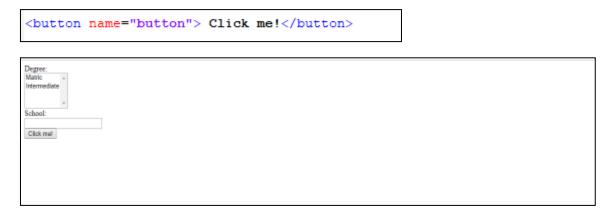
This will group some input elements and put a label around.

The rest of task is to style the form using CSS.

4. Button

Button can be placed inside or outside the form. If we use the button inside the form we can use <input type="submit">. But if we want to use button outside the form, we will use <button></button> tag.

1. Create a button outside the form.

```
<button name="button"> Click me!</button>
```


Nothing will happen, if you click the button.

We can use javascript events to make button functional.

Add the following event in button:

```
<button name="button" onclick="alert('You clicked the button')"> Click me!</button>
```

This will add an event **onclick** over the button.

onclick means, when you click the button.

For onclick value an alert is used.

Task 1

Create a new Webpage with a form.

Use remaining tags given in table **Form input Elements.**