

Department of Information and Communication Engineering

Pabna University of Science and Technology

B.Sc. (Engineering) 3<sup>rd</sup> Year 1<sup>st</sup> Semester Examination -2021

Session: 2018-2019

Course Code: ICE-3104

Course Title: Web Programming Sessional

## Lab Report

Submitted by	Submitted to
<p><b>Md. Touhidur Rahman</b></p> <p><b>Roll No: 180617</b></p> <p><b>Registration No: 1065300</b></p> <p>Department of Information and Communication Engineering</p> <p>Pabna University of Science and Technology</p> <p>Pabna-6600, Bangladesh</p>	<p><b>Dr. Md. Imran Hossain</b></p> <p>Associate Professor,</p> <p><b>Md. Tofail Ahmed</b></p> <p>Assistant Professor,</p> <p>Department of Information and Communication Engineering</p> <p>Pabna University of Science and Technology</p> <p>Pabna-6600, Bangladesh</p> <p><i>CS 51.09.27</i></p>

Sl	Experiment Name	Page No
1	Create a simple HTML page which demonstrates the use of the various types of lists	
2 5	Write HTML code to create a frameset with two vertical frames: the first frame is 250 pixelswide. Fill the first frame (left_vertical) with links.html. Second frame further divided into two horizontal frames(400px,350px).Fill the Top frame (right_top)with ice.html and Bottom (right_bottom) with it.html home.html	
3	Create a HTML document giving details of your [Name, Age], [Address, Phone] and [Register Number, Class] aligned in proper order using alignment attributes of Paragraph tag.	
4	Create a web page for internal links; when the user clicks on different links on the webpage it should go to the appropriate locations/sections in the same page.	
5 4	Write JavaScript to validate the following fields of the above registration page. i) Name (Name should contains alphabets and the length should not be less than 6characters). ii) Password (Password should not be less than 6 characters length). iii) E-mail id (should not contain any invalid and must follow the standard <u>patternname@domain.com</u> ) iv) Phone number (Phone number should contain 10 digits only).	
6	Write a JavaScript program to calculate multiplication and division of two numbers.	
7 6	Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even, and display a message to the screen	

Sl	Experiment Name	Page																					
08	<p>Write a PHP program to calculate Electricity bill in single page.</p> <p><b>Conditions:</b></p> <p>For units less 50 – Taka. 3.50/unit      For units 51 to 100 – Taka. 4.00/unit      For units 101 to 200 – Taka. 5.20/unit      For units above 250 – Taka. 6.50/unit</p>																						
09	<p>Write a simple calculator program using PHP in single page.</p> <p><b>Operations:</b></p> <p>Addition      Subtraction      Multiplication      Division</p>																						
10	<p>A. Solve the following Task-1 and Task-2.</p> <p><b>Task-1:</b> Create a database called Student in XAMPP MySQL.  <b>Task-2:</b> Create a table called Semester_Reg in the Student database having the structure as shown below.</p> <table border="1"> <thead> <tr> <th>Field name</th> <th>Data type</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>ID</td> <td>Number/Text</td> <td>Mandatory and primary key</td> </tr> <tr> <td>Name</td> <td>Text</td> <td>Mandatory</td> </tr> <tr> <td>Session</td> <td>Text</td> <td>Must follow the format like 2017-2018</td> </tr> <tr> <td>Phone No</td> <td>Text</td> <td>Optional</td> </tr> <tr> <td>City</td> <td>Text</td> <td>For example Pabna</td> </tr> <tr> <td>Gender</td> <td>Text</td> <td>Only (Male or Female)</td> </tr> </tbody> </table> <p>B. Solve the following ✓ marked tasks.</p> <p><b>Task 3:</b> Insert some sample data into Semester_Reg table using PHP program.  <b>Task 4:</b> Write a PHP program to show the all records of Semester_Reg table.  <b>Task 5:</b> Delete single sample data from Semester_Reg table using PHP program.  <b>Task 6:</b> Update one sample data of Semester_Reg table using PHP program.</p>	Field name	Data type	Requirement	ID	Number/Text	Mandatory and primary key	Name	Text	Mandatory	Session	Text	Must follow the format like 2017-2018	Phone No	Text	Optional	City	Text	For example Pabna	Gender	Text	Only (Male or Female)	
Field name	Data type	Requirement																					
ID	Number/Text	Mandatory and primary key																					
Name	Text	Mandatory																					
Session	Text	Must follow the format like 2017-2018																					
Phone No	Text	Optional																					
City	Text	For example Pabna																					
Gender	Text	Only (Male or Female)																					
11	<p>A. Solve the following Task-1 and Task-2.</p> <p><b>Task-1:</b> Create a database called Programmer- in XAMPP MySQL.  <b>Task-2:</b> Create a table called Stu_Reg in the Programmer database having the structure as shown below.</p> <table border="1"> <thead> <tr> <th>Field name</th> <th>Data type</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>ID</td> <td>Varchar (30)</td> <td>Mandatory and primary key</td> </tr> <tr> <td>Name</td> <td>Text</td> <td>Optional</td> </tr> <tr> <td>Image</td> <td>Varchar(400)</td> <td>Optional</td> </tr> <tr> <td>Password</td> <td>Number/ Varchar (20)</td> <td>Mandatory</td> </tr> </tbody> </table> <p>B. Solve the following ✓ marked tasks.</p> <p><b>Task 3:</b> Insert some sample data into Stu_Reg table including an encryption algorithm to secure the password.  <b>Task 4:</b> Write a PHP program to show the all records of Stu_Reg table.  <b>Task 5:</b> Delete single sample record from Stu_Reg table using PHP program.</p>	Field name	Data type	Requirement	ID	Varchar (30)	Mandatory and primary key	Name	Text	Optional	Image	Varchar(400)	Optional	Password	Number/ Varchar (20)	Mandatory							
Field name	Data type	Requirement																					
ID	Varchar (30)	Mandatory and primary key																					
Name	Text	Optional																					
Image	Varchar(400)	Optional																					
Password	Number/ Varchar (20)	Mandatory																					

### **Problem No-1**

**Problem Name:** Create a simple HTML page which demonstrates the use of the various types of lists.

#### **Objective(s):**

1. To know various types of lists
2. To demonstrate HTML Skills

**Theory:** HTML Provides these different types of lists

1. **Unordered list (`<ul>`)** - a bulleted list where each item is preceded by a bullet point. The individual items are enclosed within `<li>` tags.
2. **Ordered list (`<ol>`)** - a numbered list where each item is preceded by a number. The individual items are also enclosed within `<li>` tags.
3. **Definition list (`<dl>`)** - a list of terms and their corresponding definitions. Each term is enclosed within a `<dt>` tag and its definition is enclosed within a `<dd>` tag.
4. **Nested list** - a list that is nested within another list. In this example, we have a nested unordered list within an unordered list. The nested list is created using the same `<ul>` and `<li>` tags as the parent list.

#### **Code:**

```
<!DOCTYPE html>
<html>
  <head>
    <title>List Types Demo</title>
  </head>
  <body>
    <h1>List Types Demo</h1>
    <h2>Unordered List</h2>
    <ul>
      <li>Item 1</li>
      <li>Item 2</li>
      <li>Item 3</li>
    </ul>
    <h2>Ordered List</h2>
    <ol>
      <li>First item</li>
      <li>Second item</li>
      <li>Third item</li>
    </ol>
    <h2>Definition List</h2>
    <dl>
      <dt>Term 1</dt>
      <dd>Definition 1</dd>
```

```
<dt>Term 2</dt>
<dd>Definition 2</dd>
</dl>
<h2>Nested List</h2>
<ul>
<li>Item 1</li>
<li>Item 2
<ul>
<li>Nested Item 1</li>
<li>Nested Item 2</li>
</ul>
</li>
<li>Item 3</li>
</ul>
</body>
</html>
```

output

## List Types Demo

### Unordered List

- Item 1
- Item 2
- Item 3

### Ordered List

1. First item
2. Second item
3. Third item

### Definition List

Term 1  
    Definition 1  
Term 2  
    Definition 2



### Nested List

- Item 1
- Item 2
  - Nested Item 1
  - Nested Item 2
- Item 3

### Problem No:-2

**Problem Name:** Write HTML page named home.html to create a frameset with two vertical frames: the first frame is 250 pixels wide. Fill the first frame (left\_vertical) with links.html. Second frame further divided into two horizontal frames (400px, 350px). Fill the Top frame (right\_top) with ice.html and Bottom (right\_bottom) with it.html.

#### Objective(s):

1. To divide webpage into multiple sections
2. To display multiple web pages simultaneously
3. To reduce page loading time

#### Theory:

HTML frames are a deprecated feature that allow you to divide a web page into multiple sections or frames, each of which can contain a separate HTML document. Each frame is defined by a separate <frame> element, and all of the frames are defined within a <frameset> element.

#### Code:

##### home.html code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>FrameSet</title>
</head>
<frameset cols="250,*">
  <frame src="links.htm">
  <frameset rows="400,300">
    <frame src="ice.htm">
    <frame src="it.htm">
  </frameset>
</frameset>
<body>
  <p>Browser Not support frame</p>
</body>
</html>
```

##### it.htm code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible"
content="IE=edge">
  <meta name="viewport"
content="width=device-width,
initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <p style="float: right;">this is it.htm</p>
</body>
</html>
```



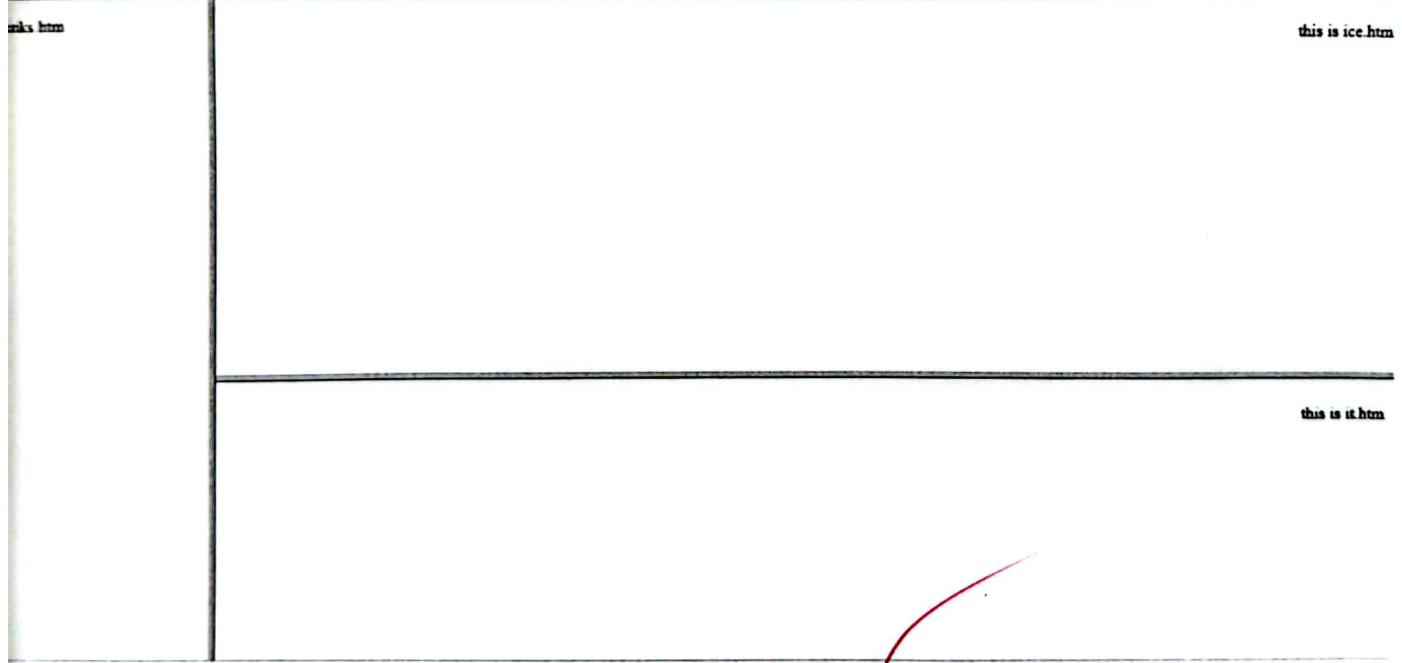
**ice.htm code:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <p style="float: right;">this is ice.htm</p>
</body>
</html>
```

**links.htm code:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <p>This is links.htm</p>
</body>
</html>
```

### Output



### **Problem No:-3**

**Problem Name:** Create a HTML document giving details of your [Name, Age], [Address, Phone] and [Register Number, Class] aligned in proper order using alignment attributes of Paragraph tag.

#### **Objective(s):**

1. To learn about paragraph tags and it's attributes namely align
2. To practice creating basic html documents.
3. To know how paragraph tags work with align attributes

#### **Theory:**

In this Problem, we have used the following HTML tags:

<h1> - creates a heading.

<p> - creates a paragraph.

align - sets the alignment of the paragraph. We have used the center value to center-align the text.

We have used three paragraphs to display the three sets of details. Each paragraph contains two lines of text separated by a <br> tag.

#### **Code:**

```
<!DOCTYPE html>
```

```
<html>
<head>
<title>My Details</title>
</head>
<body>
<h1 style="text-align: center;">My
Details</h1>
<p align="center">
Name: John Doe<br>
Age: 25
</p>
<p align="center">
Address: 123 Main St, Anytown,
USA<br>
Phone: 555-1234
</p>
<p align="center">
Register Number: 123456<br>
Class: 10th Grade
</p>
</body>
</html>
```

#### **Output**

### **My Details**

Name: John Doe  
Age: 25

Address: 123 Main St, Anytown, USA  
Phone: 555-1234

Register Number: 123456  
Class: 10th Grade

#### **Problem No: 4**

**Problem Name:** Create a web page for internal links; when the user clicks on different links on the webpage it should go to the appropriate locations/sections in the same page

#### **Objective(s):**

1. To know about internal links
2. To know how internal links works and how we can use internal links to locate appropriate locations or sections

#### **Theory:**

In this Problem, we have used the following HTML tags:

**<a>** - creates a hyperlink.

**href** - sets the URL of the hyperlink. We have used a hashtag (#) followed by the ID of the target section to create an internal link.

**<ul>** and **<li>** - create an unordered list with three list items containing the links to the three sections.

**<hr>** - creates a horizontal rule to separate the sections.

**<h2>** - creates subheadings for each section.

**id** - sets a unique identifier for each section. We have used these identifiers as targets for the internal links.

**<p>** - creates a paragraph containing a link to go back to the top of the page.

When the user clicks on one of the links in the list, the page will scroll down to the corresponding section. When the user clicks on the "Back to top" link, the page will scroll back up to the top of the page. Note that we have used the same ID ("top") for the link to go back to the top and the target for the links in the list. This creates a circular navigation where the user can jump between sections and back to the top of the page.

#### **Code:**

```
<!DOCTYPE html>
<html>
<head>
  <title>Internal Links Example</title>
</head>
<body>
  <h1>Internal Links Example</h1>
  <ul>
    <li><a href="#section1">Section 1</a></li>
    <li><a href="#section2">Section 2</a></li>
    <li><a href="#section3">Section 3</a></li>
  </ul>
  <hr>
  <h2 id="section1">Section 1</h2>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed sed ex a ante posuere blandit. Nulla dapibus, eros at sollicitudin porta, quam velit volutpat sapien, quis gravida nulla neque vel nisl.</p>
<a href="#top">Back to top</a>
<hr>
<h2 id="section2">Section 2</h2>
<p>Nullam at elementum elit. Sed imperdiet, velit eu facilisis bibendum, lacus orci feugiat sapien, eget maximus enim mi ac urna.</p>
<a href="#top">Back to top</a>
<hr>
<h2 id="section3">Section 3</h2>
<p>Etiam commodo, libero in ultrices suscipit, arcu risus dapibus mauris, id elementum dolor nisi vel neque. Fusce commodo urna vel erat pulvinar sagittis.</p>
<a href="#top">Back to top</a>
<hr>
<p id="top"><a href="#">Back to top</a></p>
</body>
</html>
```

## Output

### Internal Links Example

- [Section 1](#)
  - [Section 2](#)
  - [Section 3](#)
- 

#### Section 1

Ipsum dolor sit amet, consectetur adipiscing elit. Sed sed ex a ante posuere blandit. Nulla dapibus, eros at sollicitudin porta, quam velit volutpat sapien, quis gravida nulla neque vel nisl.

[Back to top](#)

---

#### Section 2

Nullam at elementum elit. Sed imperdiet, velit eu facilisis bibendum, lacus orci feugiat sapien, eget maximus enim mi ac urna.

[Back to top](#)

---

#### Section 3

Etiam commodo, libero in ultrices suscipit, arcu risus dapibus mauris, id elementum dolor nisi vel neque. Fusce commodo urna vel erat pulvinar sagittis.

[Back to top](#)

---

[Back to top](#)

### Problem No: 5

Problem Name: Write HTML & CSS code for following table

*A test table with merged cells*

	Average		Red eyes
	height	weight	
Males	1.9	0.003	40%
Females	1.7	0.002	43%

#### Objective(s):

1. To know how a html construct using table tag.
2. To know about merged cells in table using html tag and css

#### Theory:

In this problem we have used these html tags and css

1. The `<table>` element creates a table with a border, and specifies that the table should take up 50% of the width of its container and be centered using the margin and auto properties.
2. The first `<tr>` element within the table defines the first row of the table, which contains a single cell with a `rowspan` attribute of 2 to merge it with the next row. This cell is left empty, so the first column of the table is effectively merged with the second column in the next row.
3. The second `<tr>` element defines the second row of the table, which contains three cells with the headings "Average height", "Average weight", and "Red Eyes". The first two cells are merged using the `colspan` attribute.
4. The third and fourth `<tr>` elements define the third and fourth rows of the table, which contain data for males and females, respectively. Each row contains four cells, with the first cell displaying the gender ("Males" or "Females"), and the remaining cells displaying the average height, average weight, and red eye percentage for that gender.
5. The `<th>` and `<td>` elements are used to define table headers and data cells, respectively. The `<th>` elements have a light gray background color, while the `<td>` elements have a white background color.
6. The CSS code within the `<style>` element defines styles for the various elements in the document. The `border-collapse` property is used to collapse the borders between cells in the table, and the `text-align` property is used to center the text within cells. The `background-color` property is used to set the background color of the table headers, and the margin and auto properties are used to center the table horizontally on the page.

**Code:**

```
<!DOCTYPE html>
<html>
<head>
<title>Test Table</title>
<style>
table {
    border-collapse: collapse;
    width: 100%;
}
th, td {
    border: 1px solid black;
    padding: 8px;
    text-align: center;
}
th {
    background-color: lightgray;
}
th[colspan="2"] {
    background-color: gray;
    color: white;
}
</style>
</head>
<body>
<p align="center">A test table with merged cells</p>
<table style="border: 1px solid black; width: 50%; margin: auto;">
<tr>
<th rowspan="2"></th>
<th colspan="2">Average</th>
<th rowspan="2">Red Eyes</th>
</tr>
<tr>
<th>height</th>
<th>weight</th>
</tr>
<tr>
<td>Males</td>
<td>1.9</td>
<td>0.003</td>
<td>40%</td>
</tr>
<tr>
<td>Females</td>
```



```
<td>1.7</td>
<td>0.002</td>
<td>43%</td>
</tr>
</table>
</body>
</html>
```

## Output

A test table with merged cells

	Average		Red Eyes
	height	weight	
Males	1.9	0.003	40%
Females	1.7	0.002	43%

**Problem No: 6**

**Problem Name:** Write HTML for the following registration page & use CSS to beautify it as your own choice

**Personal Details**

Name:	
E-mail:	
Phone Number:	
Password:	
Gender:	<input type="radio"/> Male <input type="radio"/> Female

**Submit**

**Objective(s):**

1. To know how construct a form using html and css
2. To know how design a form using css
3. To know about submit button

**Theory:**

We have used HTML and CSS code for a form that captures personal details such as name, email, phone number, password, and gender. The CSS code sets the styles for the different elements on the form, such as the text alignment, font weight, width, margin, padding, and border radius, among others.

The form is wrapped inside a div with a class "form", which sets the width, display, and margin of the form. The form contains input fields for capturing the user's name, email, phone number, and password. The input fields have the "required" attribute to ensure that the user fills in all the necessary details before submitting the form.

The form also has a radio button for selecting the user's gender. The radio buttons are styled to have a smaller width and height using CSS.

Finally, there is a submit button at the bottom of the form with a class "green\_color" that sets the background color to green and the text color to white.

**Code:**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Personal details</title>
    <style>
        h3 {text-align: center;}
        form {width: 50%;display: block; margin: auto auto;}
        .same {margin: 10px auto;display: block;text-align: center;}
        .email label {font-weight: bold;padding-left: 63px; }
        .name label {font-weight: bold;padding-left: 64px; }
```

```
.phone label {font-weight: bold; }
.password label {font-weight:bold;padding-left:37px;}
input {border: 1px solid black;height: 22px;width: 50%;border-radius: 2%;}
label#gen {font-weight: bold;padding-left: 160px;}
.gender input {
    width: 30px;
    height: 15px;
}
.gender {
    text-align: left;
}
button.green_color {
    color: white;
    background: green;
    padding: 6px;
    border: 1px solid black;
    margin: auto;
    text-align: center;
    display: block;
}

```

}

```
</style>
```

```
</head>
```

```
<body>
```

```
    <h3>Personal Details</h3>
```

```
    <form action="#">
```

```
        <div class="name same">
            <label for="">Name:</label>
            <input type="text" required>
        </div>
```

```
        <div class="email same">
            <label for="">Email:</label>
            <input type="email" required>
        </div>
```

```
        <div class="phone same">
            <label for="">Phone Number: </label>
            <input type="tel" required>
        </div>
```

```
        <div class="password same">
            <label for="">Password: </label>
            <input type="password" required>
        </div>
```

```
        <div class="gender same">
            <label for="" id="gen">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>
</div>
<button class="green_color" type="submit">Submit</button>
</form>
</body>
</html>
```

## Output

### Personal Details

Name:

Email:

Phone Number:

Password:

Gender:  Male  Female

### **Problem No:- 7**

**Problem Name:** Write JavaScript to validate the following fields of the Question 06 registration page. i) Name (Name should contains alphabets and the length should not be less than 6 characters). ii) E-mail (should not contain any invalid and must follow the standard pattern name@domain.com). iii) Phone Number (Phone Number should contain 10 digits only). iv) Password (Password should not be less than 6 characters length).

#### **Objective(s):**

1. To know about javascript function
2. To know about validation of name,email,number and password
3. To know about condition operator in javascript

#### **Theory:**

In this problem The validateForm() function is called when the form is submitted. It performs the following validations:

The name field should not be empty and should contain only alphabets with length not less than 6 characters.

The email field should not be empty and should match the standard email pattern.

The phone number field should not be empty and should contain 10 digits only.

The password field should not be empty and should have length not less than 6 characters.

If any of the validations fail, an alert message is displayed and the form submission is prevented. If all the validations pass, a success message is displayed and the form is submitted.

#### **Code:**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Registration Form</title>
    <script>
        function validateForm() {
            // Name validation
            var name = document.forms["myForm"]["name"].value;
            var nameRegex = /^[a-zA-Z]+$/;
            if (name == "" || name.length < 6 || !nameRegex.test(name)) {
                alert("Please enter a valid name with alphabets only and length should not be less
than 6 characters.");
                return false;
            }
            // Email validation
            var email = document.forms["myForm"]["email"].value;
            var emailRegex = /\S+@\S+\.\S+/;
            if (email == "" || !emailRegex.test(email)) {
                alert("Please enter a valid email address.");
```

```

        return false;
    }
    // Phone Number validation
    var phone = document.forms["myForm"]["phone"].value;
    var phoneRegex = /^[0-9]{11}$/;
    if (phone == "" || !phoneRegex.test(phone)) {
        alert("Please enter a valid phone number with 10 digits only.");
        return false;
    }
    // Password validation
    var password = document.forms["myForm"]["password"].value;
    if (password == "" || password.length < 6) {
        alert("Please enter a valid password with length not less than 6 characters.");
        return false;
    }
    alert("Successfully submitted the registration form!");
    return true;
}
</script>
</head>
<body>
<h3>Registration Form</h3>
<form name="myForm" onsubmit="return validateForm()" method="post">
    <label>Name:</label>
    <input type="text" name="name" required><br><br>
    <label>Email:</label>
    <input type="email" name="email" required><br><br>
    <label>Phone Number:</label>
    <input type="tel" name="phone" required><br><br>
    <label>Password:</label>
    <input type="password" name="password" required><br><br>
    <button type="submit">Submit</button>
</form>
</body>
</html>

```

### Output

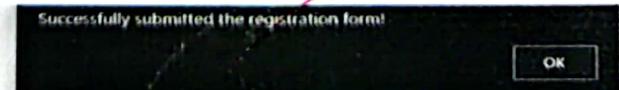
**Registration Form**

Name:

Email:

Phone Number:

Password:



### **Problem:- 8**

**Problem Name:** Write a JavaScript program to calculate multiplication and division of two numbers.

#### **Objective(s):**

1. To know how a calculation can be performed using javascript of two number
2. To how we take the input from user and show the result in browser using javascript and html and css.

#### **Theory:**

In this problem we made a basic calculator made with JavaScript. The page has two divs, one on the left and one on the right. The left div contains a text area to display the result of the calculation, and the right div has a form with two input fields for the user to enter two numbers, and two buttons to perform multiplication and division operations.

The JavaScript code consists of two functions, Mul() and Div(). The Mul() function retrieves the values of the two input fields, multiplies them, and displays the result in the text area. The Div() function performs a similar operation but divides the two values and displays the result with two decimal places in the text area.

Overall, the code is a simple example of how to create a basic calculator using HTML and JavaScript.

#### **Code:**

```
<html>
<head>
<style>
body {
    background-color: #ddd;
    font-size: 30px;
}
.div2 {
    height: 80%;
    width: 45%;
    float: left;
    font-size: 30px;
    margin: auto;
}
.div1 {
    height: 80%;
    width: 50%;
    float: right;
}
.cal {
```

```
height: 20%;  
font-size: 50px;  
color: blue;  
margin: auto;  
  
}  
input {  
    font-size: 30px;  
}  
textarea {  
    font-size: 30px;  
}  
label {  
    color: red;  
}  
.v {  
    border-right: 2px solid black;  
    height: 250px;  
}  
</style>  
  
</head>  
<body>  
    <div class="cal">  
        <center>  
            Calculator  
        </center>  
        <hr />  
    </div>  
    <div class="div1">  
        <label>Result </label>  
        <hr />  
        <textarea rows="3" cols="33" id="result">  
  
    </textarea>  
    </div>  
    <div class="div2">  
        <div class="vl">  
            <form method="post" action="">  
                <label>Input </label>  
                <hr />  
                Enter 1st number <input type="number" name="fnum" id="fnum" /><br /><br />  
                Enter 2nd number <input type="number" name="snum" id="snum" />  
                <br />
```

```

<input type="button" name="MUL" onclick="Mul()" value="MUL" />
<input type="button" name="DIV" onclick="Div()" value="DIV" />
</form>
</div>
</div>
<script>
function Mul() {
    var num1 = document.getElementById('fnum').value;
    var num2 = document.getElementById('snum').value;
    var result = document.getElementById('result');
    var Result = num1 * num2;
    result.innerHTML = num1 + " Mul " + num2 + " = " + Result;
}
function Div() {
    var num1 = document.getElementById('fnum').value;
    var num2 = document.getElementById('snum').value;
    var result = document.getElementById('result');
    var Result = num1 / num2;
    result.innerHTML = num1 + " Div " + num2 + " = " + Result.toFixed(2);
}
</script>
</body>
</html>

```

### Output

**Calculator**

Input	Result
Enter 1st number <input type="text" value="10"/>	<input type="text" value="10 Mul 20 = 200"/>
Enter 2nd number <input type="text" value="20"/>	
<input type="button" value="MUL"/> <input type="button" value="DIV"/>	

### Problem No:-9

**Problem Name:** Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even, and display a message to the screen.

#### Objective(s):

1. To know how using a loop and conditional operator we can determine a number is even or odd within a range
2. To know how a loop working in javascript

#### Theory:

In this problem we developed a script to create a for loop based on the user input. The loop will start from the value entered by the user as the starting point and end at the value entered as the ending point. The loop will iterate over each value between the starting and ending points, and for each value, the script will check if it is even or odd. If the value is even, it will print a message saying so, and if it is odd, it will print a message saying so. The messages are displayed in the HTML document using the document.write() method. Finally, the script will display the range of the for loop on the HTML page using the innerHTML property of an HTML element with the id of for\_loop.

#### Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Iterate For Loop</title>
</head>
<body>
    <h2 id="for_loop"></h2>
    <script>
        var first = prompt("Enter for loop starting value");
        var last = prompt("Enter for loop ending value");
        let a = parseInt(first);
        let b = parseInt(last);
        for (var x=a; x<=b; x++) {
            if (x == 0) {
                document.write(x + " is even");
                document.write("<br>");
                document.write("<br>");
            }
            else if (x % 2 == 0) {
                document.write(x + " is even\n");
                document.write("<br>");
                document.write("<br>");
            }
            else {
```

```
        document.write(x + " is odd\n");
        document.write("<br>");
        document.write("<br>");
    }
}

document.getElementById("for_loop").innerHTML = "For loop from " + first + " to
" + last;
</script>
</body>
</html>
```

### Output

## For loop from 1 to 15

1 is odd

2 is even

3 is odd

4 is even

5 is odd

6 is even

7 is odd

8 is even

9 is odd

10 is even

11 is odd

12 is even

13 is odd

14 is even

15 is odd

### **Problem No:-10**

**Problem Name:** Write a PHP program to calculate Electricity bill in single page.

#### **Conditions:**

For units less 50 – Taka. 3.50/unit

For units 51 to 100 – Taka. 4.00/unit

For units 101 to 200 – Taka. 5.20/unit

For units above 250 – Taka. 6.50/unit

#### **Objective(s):**

1. To know how to calculate electricity bill in php
2. To know how to show calculated value in webpage

#### **Theory:**

We will learn calculation of electricity bill using php if else conditional operator. The electricity bill's unit is varies based on unit. In this program we will find out the calculated value of electricity bill.

#### **Code:**

```
<?php
$result_str = $result = "";
if( isset( $_POST['unit-submit'] ) ) {
    $units = $_POST['units'];
    if( !empty( $units ) ) {
        $result = calculate_bill( $units );
        $result_str = 'Total amount of ' . $units . ' units = ' . $result . ' Taka';
    }
}
/***
 * To calculate electricity bill as per unit cost
 */
function calculate_bill( $units )
{
    $unit_cost_first = 3.50;
    $unit_cost_second = 4.00;
    $unit_cost_third = 5.20;
    $unit_cost_fourth = 6.50;
    if( $units <= 50 ) {
        $bill = $units * $unit_cost_first;
    } else if( $units > 50 && $units <= 100 ) {
        $temp = 50 * $unit_cost_first;
        $remaining_units = $units - 50;
        $bill = $temp + ( $remaining_units * $unit_cost_second );
    } else if( $units > 100 && $units <= 200 ) {
        $temp = ( 50 * 3.5 ) + ( 100 * $unit_cost_second );
    }
}
```

```
$remaining_units = $units - 150;  
$bill      = $temp + ( $remaining_units * $unit_cost_third );  
} else {  
    $temp      = ( 50 * 3.5 ) + ( 100 * $unit_cost_second ) + ( 100 * $unit_cost_third );  
    $remaining_units = $units - 250;  
    $bill      = $temp + ( $remaining_units * $unit_cost_fourth );  
}  
return number_format( (float) $bill, 2, '.', '' );  
}  
?>
```

Output

# Calculate Electricity Bill

Please enter no. of Units

Submit

Total amount of 100 units = 375.00 Taka

### **problem No:-11**

**Problem Name:** Write a simple calculator program using PHP in single page. Operations:  
Addition Subtraction Multiplication Division.

#### **Objective(s):**

1. To know how to calculate addition in php
2. To know how to calculate subtraction in php
3. To know how to calculate multiplication in php
4. To know how to calculate division in php

#### **Theory:**

**Addition:** The addition in php program, If we take two variable as \$x and \$y then result  
 $\$z = \$x + \$y;$

**Subtraction:** The subtraction in php program, If we take two variable as \$x and \$y then result  
 $\$z = \$x - \$y;$

**Multiplication:** The multiplication in php program, If we take two variable as \$x and \$y then result  
 $\$z = \$x * \$y;$

**Division:** The division in php program, If we take two variable as \$x and \$y then result  
 $\$z = \$x / \$y;$

#### **Code:**

```
<?php
$sum = null;
$opa = null;
$x = 0;
$y = 0;

if ( isset( $_POST["ADD"] ) ) {
    $x = $_POST['fnum'];
    $y = $_POST['snum'];
    $opa = $_POST["ADD"];
    $sum = $x + $y;
} else if ( isset( $_POST["SUB"] ) ) {
    $x = $_POST['fnum'];
    $y = $_POST['snum'];
    $opa = $_POST["SUB"];
    $sum = $x - $y;
} else if ( isset( $_POST["MUL"] ) ) {
    $x = $_POST['fnum'];
    $y = $_POST['snum'];
    $opa = $_POST["MUL"];
    $sum = $x * $y;
} else if ( isset( $_POST["DIV"] ) ) {
    $x = $_POST['fnum'];
    $y = $_POST['snum'];
    $opa = $_POST["DIV"];
    $sum = $x / $y;
}

echo $sum;
echo $opa;
```

```
$y = $_POST['snum'];
$opa = $_POST["DIV"];
$sum = $x / $y;
$sum = number_format( $sum, 3 ); //this method will show only 3 number after float
point
}
?>
```

## Output

### Calculator

Input

Enter 1st number

Enter 2nd number

**ADD** **SUB** **MUL** **DIV**

Result

**10 ADD 10=20**

### Problem No:-12

**Problem Name:**A. Solve the following Task-1 and Task-2. Task-1: Create a database called Student in XAMPP MySQL. Task-2: Create a table called Semester\_Reg in the Student database having the structure as shown below.

Field name	Data type	Requirement
ID	Number/Text	Mandatory and primary key
Name	Text	Mandatory
Session	Text	Must follow the format like 2017-2018
Phone_No	Text	Optional
City	Text	For example Pabna
Gender	Text	Only (Male or Female)

B. Solve the following marked tasks. Task 3: Insert some sample data into Semester\_Reg table using PHP program. Task 4: Write a PHP program to show the all records of Semester\_Reg table. Task 5: Delete single sample data from Semester\_Reg table using PHP program. Task 6: Update one sample data of Semester\_Reg table using PHP program.

#### Objective(s):

1. To know how update data in database using php
2. To know how delete data in database using php
3. To know how insert data in database using php
4. To know how create a database

#### Code:

```
<?php
//$connect=mysqli_connect("localhost","root","","Student");
include "connection.php";
//require();
//Insert start
if( isset( $_POST["insert"] ) ) {
    $id    = $_POST["id"];
    $name  = $_POST["name"];
    $sess  = $_POST["session"];
    $phone = $_POST["ph_number"];
    $city  = $_POST["city"];
    $gender= $_POST["gender"];
    $insert = "insert into semester_reg(ID,Name,Session,Ph_Num,City, Gender)
values('$id','$name','$sess', '$phone', '$city', '$gender')";
    $result = mysqli_query( $connect, $insert );
    if( $result == 1 ) {
        echo "Successfully insert a record!";
    } else {
        echo "Unsucess";
    }
}
```

```
 } //Insert end

//Delete start
if( isset( $_POST["delete"] ) ) {
    $id = $_POST["id"];
    $name = $_POST["name"];
    $sess = $_POST["session"];
    $delete = "delete from semester_reg where ID='$id' and Name='$name' and Session='$sess'";
    $result = mysqli_query( $connect, $delete );
    if( $result == 1 ) {
        echo "Successfully delete your record!";
    } else {
        echo "Unsucess";
    }
} //Delete end

//update start
if( isset( $_POST["update"] ) ) {
    $id = $_POST["id"];
    $name = $_POST["name"];
    $sess = $_POST["session"];
    $phone = $_POST["ph_number"];
    $city = $_POST["city"];
    $gender = $_POST["gender"];
    $insert = "update semester_reg set Name='$name',Session='$sess',Ph_Num='$phone',City='$city',Gender='$gender' where ID='$id'";
    $result = mysqli_query( $connect, $insert );
    if( $result == 1 ) {
        echo "Successfully updated your record!";
    } else {
        echo "Unsucess";
    }
} //update end

//show data start
if( isset( $_POST["select"] ) ) {

    $query = "SELECT * FROM semester_reg"; //ORDER BY id ASC";
    $result = mysqli_query( $connect, $query );
    if( $result == true ) {
        echo "All Registered Students List <br>";
        echo "<table cellpadding=10 border='1'>
<tr>
```

```

<th>ID</th>
<th>Name</th>
<th>Session</th>
<th>Phone Number</th>
<th>City</th>
<th>Gender</th>
</tr>";
if ( mysqli_num_rows( $result ) > 0 ) {
    while ( $row = mysqli_fetch_array( $result ) ) {

        echo "<tr>";
        echo "<td style='color:black'>" . $row['ID'] . "</td>";
        echo "<td style='color:black'>" . $row['Name'] . "</td>";
        echo "<td style='color:black'>" . $row['Session'] . "</td>";
        echo "<td style='color:black'>" . $row['Ph_Num'] . "</td>";
        echo "<td style='color:black'>" . $row['City'] . "</td>";
        echo "<td style='color:black'>" . $row['Gender'] . "</td>";
        echo "</tr>";
    }
    echo "</table>";

}
} else {
    echo "No record found!";
}
}
//end of show data
?>

```

#### **Connection code with database:**

```

<?php
$connect=mysqli_connect("localhost","root","","Student");
?>

```