

**Experiment Name:** Write HTML code for following table and design it your own choice using CSS.

*A test table with merged cells*

	Average		Red eyes
	height	weight	
<b>Males</b>	1.9	0.003	40%
<b>Females</b>	1.7	0.002	43%

### Theory:

The <table> tag defines an HTML table.

An HTML table consists of one <table> element and one or more <tr>, <th>, and <td> elements.

The <tr> element defines a table row, the <th> element defines a table header, and the <td> element defines a table cell.

An HTML table may also include <caption>, <colgroup>, <thead>, <tfoot>, and <tbody> elements.

### Source Code:

```
<html>
<body>
<table background="colors:darker" border="1">
<caption align="middle">A test table with merged cells</caption>
<tr>
    <th rowspan="2">&nbsp;</th>
    <th align="middle" rowspan="2">Red eyes</th>
</tr>
<tr>
    <th><b> Height</b></th>
    <th><b> Weight</b></th>
</tr>
<tr>
<th><b>Males</b></th>
    <td> 1.9 </td>
    <td> 0.003 </td>
    <td> 40% </td>
</tr>
<tr>
    <th><b> Female</b></th>
    <td> 1.7 </td>
```

```

        <td> 0.002 </td>
        <td> 43% </td>

    </tr>
</table>
</body>
</html>
```

**Output:**

	Average		Red eyes
	Height	Weight	
Males	1.9	0.003	40%
Females	1.7	0.002	43%

## Experiment 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 and display different order list.

## Theory:

Hyperlinks are one of the most exciting innovations the Web has to offer. They've been a feature of the Web since the beginning, and are what makes the Web *a web*. Hyperlinks allow us to link documents to other documents or resources, link to specific parts of documents, or make apps available at a web address. Almost any web content can be converted to a link so that when clicked or otherwise activated the web browser goes to another web address .

Hyperlink can be divide into three category is that:

1. Internal hyperlink
2. Global hyperlink
3. External hyperlink

**Internal hyperlink:** HTML internal link is linked within the same web page. This link can be an absolute path or relative path. HTML internal link name is followed by the hash sign(#). You have to assign an **id** to refer section of your page, which is referred to as an internal link to the same page.

**Global hyperlink:** A global (or absolute) link specifies the absolute location of a resource. These always begin with a protocol (typically http or https), followed by the website domain and optionally the path from the base of the domain to the specific resource.

**External hyperlink:** An external link is used to interconnect two html webpages. When you want to navigate to some other page or any other URL by clicking on a link on webpage, external links are created. An external link can be created by using anchor tag in html web page.

## Source Code:

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>Internal Links Example</title>
  <style>
    /* Add some basic styling for clarity */
    body {
```

```

        font-family: Arial, sans-serif;
        margin: 0;
        padding: 0;
    }

    header {
        background-color: #333;
        color: #fff;
        text-align: center;
        padding: 10px;
    }

    nav {
        background-color: #444;
        color: #fff;
        padding: 10px;
    }

    nav ul {
        list-style-type: none;
        padding: 0;
    }

    nav li {
        margin: 5px 0;
    }

    section {
        padding: 20px;
    }
</style>
</head>
<body>
    <header>
        <h1>Internal Links Example</h1>
    </header>

    <nav>
        <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>
    </nav>

```

```
<section id="section1">
  <h2>Section 1</h2>
  <ol>
    <li>Item 1</li>
    <li>Item 2</li>
    <li>Item 3</li>
  </ol>
</section>
```

```
<section id="section2">
  <h2>Section 2</h2>
  <ol>
    <li>Item A</li>
    <li>Item B</li>
    <li>Item C</li>
  </ol>
</section>
```

```
<section id="section3">
  <h2>Section 3</h2>
  <ol>
    <li>Apple</li>
    <li>Banana</li>
    <li>Cherry</li>
  </ol>
</section>
```

```
</body>
</html>
```

**Output:**

**Introduction of Lesson-1**

This is sub Topic-1

This is sub Topic-2

**Introduction of Lesson-2**

This is sub Topic-1

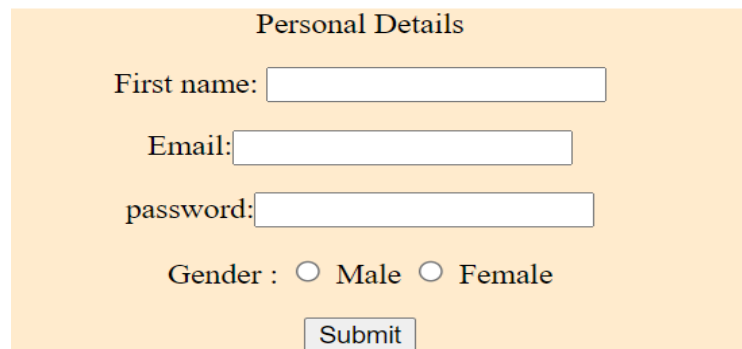
This is sub Topic-2

**Introduction of Lesson-3**

This is sub Topic-1

This is sub Topic-2

**Experiment Name:** Write HTML code for the following picture: i) Alignment text level and text box using CSS and ii) Connect this form into database using PHP.



Personal Details

First name:

Email:

password:

Gender : ☐ Male ☐ Female

### Theory:

In HTML (Hypertext Markup Language), the **<form>** element is used to create a container for various form controls, such as text fields, checkboxes, radio buttons, and buttons. Forms are a fundamental part of web development and are used to collect and submit data from users. The **<form>** element serves as the structure that holds these input elements, and it defines how the data should be submitted to the server.

In HTML, "text-level elements" refer to elements that are used to structure and format text within a document. These elements allow you to apply various formatting and semantics to the content within them. Text-level elements are used to modify or enhance the way text is displayed on a web page.

In HTML, a "text box" typically refers to an **<input>** element of type "text." This element allows users to input and edit text data in a form on a web page. Text boxes are commonly used for various purposes, including user registration, search fields, and data entry forms.

### Source Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Registration Form</title>
  <style>
    * {
      color: white;
    }

    body {
```

```
        background-color: #e7dbdb;
    }

    h1 {
        text-align: center;
        margin-top: 10px;
    }

    form {
        width: 500px;
        margin: auto;
        background-color: gray;
        padding: 20px;
        border-radius: 5px;
        box-shadow: 0 0 10px #999999;
    }

    label {
        display: block;
        margin-bottom: 10px;
        font-weight: bolder;
        font-size: 18px;
    }

    .form-control>input {
        width: 100%;
        padding: 10px;
        border-radius: 3px;
        border: 1px solid #999999;
        margin-bottom: 20px;
        box-sizing: border-box;
        background-color: #999999;
    }

    .gender>input,
    .gender>label {
        display: inline;
    }

    .form-control>.submit {
        background-color: #4CAF50;
        padding: 10px 20px;
        border: none;
        border-radius: 3px;
        cursor: pointer;
    }

    .form-control>.submit:hover {
        background-color: #3e8e41;
```



```

    }
</style>
</head>
<body>
    <form action="process.php" method="POST">
        <h1>Personal Details</h1>
        <div class="form-control">
            <label for="name">Name:</label>
            <input type="text" id="name" name="name">
        </div>
        <div class="form-control">
            <label for="email">E-mail:</label>
            <input type="email" id="email" name="email">
        </div>
        <div class="form-control">
            <label for="phone">Phone Number:</label>
            <input type="tel" id="phone" name="phone">
        </div>
        <div class="form-control">
            <label for="password">Password:</label>
            <input type="password" id="password" name="password">
        </div>
        <div class="gender">
            <label for="gender">Gender:</label>
            <span style="margin-left: 20px;">
                <input type="radio" value="Male" name="gender" checked> Male
                <input type="radio" value="Female" name="gender"> Female
            </span>
        </div>
        <br><br>
        <div class="form-control">
            <input type="submit" class="submit" name="submit" value="Submit">
        </div>
    </form>
</body>
</html>

```

```

#### connected php
<?php
// Database connection
$hostname = "localhost";
$username = "root";
$password = "password";
$databse = "tab";

$con = mysqli_connect("localhost", "root", "", "tab");

if (!$con) {
    die("Connection failed: " . mysqli_connect_error());
}

```

```

if (isset($_POST['submit'])) {
    $name = $_POST['name'];
    $email = $_POST['email'];
    $password = $_POST['password'];
    $phone = $_POST['phone'];
    $gender = $_POST['gender'];

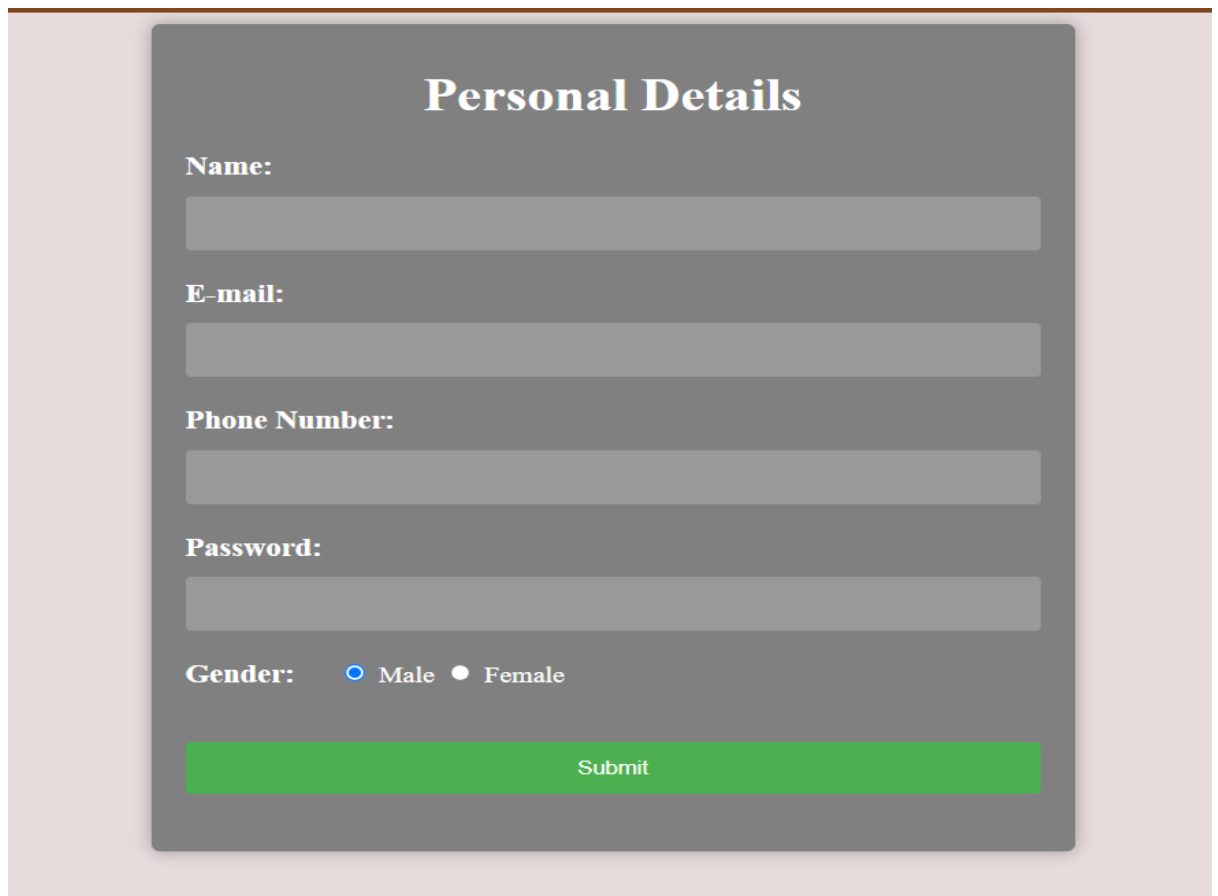
    $sql = "INSERT INTO abc (name, email, Password, phone, Gender)
        VALUES ('$name', '$email', '$password', '$phone', '$gender')";

    if (mysqli_query($con, $sql)) {
        echo "Data is Inserted";
    } else {
        echo "Error: " . $sql . "<br>" . mysqli_error($con);
    }

    mysqli_close($con);
}
?>

```

### Output:



**Personal Details**

**Name:**

**E-mail:**

**Phone Number:**

**Password:**

**Gender:** ☒ Male ☐ Female

**Submit**

**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 patternname@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 validateForm0 (
// Name validation
var name = document.forms["myForm"]["name"].value;
var nameRegex = /^[a-zA-Z]+$/;
if (name.length < 6 || !nameRegex.test(name)) {
  alert("Please enter a valid name with alphabets only and length should not be less than 6 characters.");
  return false;
}
// Email validation
var email = document.forms["myForm"]["e"].value;
var emailRegex = /^[a-zA-Z0-9]+@[a-zA-Z0-9]+\.[a-zA-Z]{2,4}$/;
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]{10}$/;
if (!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 validate Form()" 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:

**Personal Details**

Name:

E-mail:

Phone Number:

Password:

Gender: ☒ Male ☐ Female

Name : pikachu  
Email: pikachu@gmail.com  
Phone Number : 0123456789  
Password : 123456  
Gender : Male

**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:**

```
<IDOCUMENT 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:**

This is links.html Frame	This is ice.html Frame
	This is it.html Frame

**Problem Name:**

Write a JavaScript for loop that will iterate from 0 to 30. 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%2==0){ document.write(x+" is even"); document.write("<br>"); document.write("<br>");
else if (x % 2!=0) ( document.write(x+" is odd\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:

127.0.0.1:5500 says

Enter for loop starting value

OK Cancel

127.0.0.1:5500 says

Enter for loop ending value

OK Cancel

## For loop from 5 to 10

5 is odd

6 is even

7 is odd

8 is even

9 is odd

10 is even



**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) { } else if ($units > 50 && $units <= 100) {
$bill=$units*$unit_cost_first;
$step = 50*$unit_cost_first;
$remaining_units = $units - 50;
$bill = $step + ($remaining_units*$unit_cost_second) } else if ($units > 100 && $units <= 200)
(
$step = (50*3.5)+(100*$unit_cost_second);
$remaining_units = $units - 150;
$bill = $step + ($remaining_units*$unit_cost_third);
} else {
$step = (50*3.5)+(100*$unit_cost_second)+(100*$unit_cost_third);
$remaining_units = $units - 250;
$bill = $step + ($remaining_units*$unit_cost_fourth);
return number_format((float) $bill, 2, ".", "");
}
```

**Output:**

# Calculate Electricity Bill

Total amount of 30 units = 105.00 Taka

**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 Sx and Sy then result Sz-  
 $Sx + Sy$ ;

Subtration: The subtraction in php program, If we take two variable as Sx and Sy then result  
 $Sz - Sx - Sy$ ;

Multiplication: The multiplication in php program, If we take two variable as Sx and Sy then  
result  $Sz - Sx * Sy$ ,

Division: The division in php program, If we take two variable as Sx and Sy then result Sz-  
 $Sx / Sy$

**Code:**

```
<?php
Ssum= = null;
Sopa = null; Sx = 0;
Sy=0;
if (isset($_POST["ADD"])) { Sx=$_POST['fnum']; Sy $_POST['sum']; Sopa
$_POST["ADD"];
Ssum = Sx + Sy;
} else if (isset($_POST["SUB"])) {
Sx=$_POST['fnum'];
Sy $_POST['snum']; Sopa=$_POST["SUB"];
Ssum = Sx-Sy;
}else if (isset($_POST["MUL"])){
Sx=$_POST['fnum']; Sy=$_POST['snum']; Sopa=$_POST["MUL"]; Ssum = Sx Sy;
} else if (isset($_POST["DIV"])) { $x=$_POST['fnum'];
Sy=$_POST['snum'];
Sopa=$_POST["DIV"];
Ssum = Sx/Sy;
Ssum=number_format( $sum, 3 ); //this method will show only 3 number after float
point
}
```

Output:

Calculator

Input

Enter 1st number

Enter 2nd number

+

-

\*

/

Result

3 + 2=5

**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 <b>2017-2018</b>
Phone_No	Text	Optional
City	Text	For example <b>Pabna</b>
Gender	Text	Only ( <b>Male or Female</b> )

B. Solve the following **P** 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
//Sconnect=mysqli_connect("localhost","root","","Student"); include "connection.php";
require():
Insert start //
if (isset($_POST["insert"])) {
Sid = $_POST["id"];
Sname=$_POST["name"];
Ssess=$_POST["session"];
Sphone=$_POST["ph-number"];
Scity=$_POST["city"];
Sgender=$_POST["gender"]; Sinsert "insert into
semester_reg(ID,Name,Session,Ph_Num,City, Gender) values('Sid','Sname','Ssess', 'Sphone',
'Scity', 'Sgender')";
Sresult = mysqli_query(Sconnect, Sinsert);
if (Sresult==1){
) else (
echo "Successfully insert a record!";
Sresult = mysqli_query($connect, Sinsert);
if ($result == 1) {
echo "Successfully insert a record!";
} else {
```

```

echo "Unsucess";
} //Insert end
//Delete start
if (isset($_POST["delete"])) { $id=$_POST["id"]; $name=$_POST["name"];
$session=$_POST["session"];
$query="delete from semester_reg where ID='$id'and Name='$name' and Session $session";
$result = mysqli_query($connect, $query);
if ($result=1){
for ($i=0; $i<30; $i++)
echo "Successfully delete your record!"; }else{ echo "Unsucess";
} //Delete end
// update start
if (isset($_POST["update"])) { $id=$_POST["id"]; $name=$_POST["name"];
$session=$_POST["session"]; $phone=$_POST["ph_number"];
$city=$_POST["city"];
$gender=$_POST["gender"];
$query = "update semester_reg set Name='$name',Session='$session',Ph_Num='$phone', City
$city,Gender='$gender' where ID='$id'";
$result = mysqli_query($connect, $query);
if ($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">
<thead>
<th>ID</th>
<th>Name</th>
<th>Session</th>
<th>Phone Number</th>
<th>City</th>
<th>Gender</th>
</thead>
<tbody>
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>";
}

```

## Output:

Database created successfully  
Table created successfully

Extra options


 ID	Name	Session	Ph_Num	City	Gender
--	------	---------	--------	------	--------




 ☐ Check all    With selected:  Edit     Copy     Delete     Export

## Task-2

Sample data inserted successfully

Extra options

 ID	Name	Session	Phone_No	City	Gender
--	------	---------	----------	------	--------

☐  Edit     Copy     Delete    10    Doe    2017-2018    1234567890    Pabna    Male

## Task-3

**ID:**  
**Name:**  
Doe  
**Session:**  
2017-2018  
**Phone\_No:**  
1234567890  
**City:**  
Pabna  
**Gender:**  
Male

## Task-4

## Delete Record Result

Record with ID 10 deleted successfully

Record with ID 1 updated successfully