

FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY (FISAT)TM

HORMIS NAGAR, MOOKKANNOOR, ANGAMALY-683577



FOCUS ON EXCELLENCE

20MCA133 WEB PROGRAMMING LAB

LABORATORY RECORD

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Semester: 1

Batch: A

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MARCH 2022

**FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY
(FISAT)TM**

HORMIS NAGAR, MOOKKANNOOR, ANGAMALY-683577



FOCUS ON EXCELLENCE

CERTIFICATE

*This is to certify that this is a Bonafide record of the Practical work done by **Elizaba Mariyam Binny FIT21MCA-2053** in the **20MCA133 WEB PROGRAMMING LAB** Laboratory towards the partial fulfilment for the award of the Master Of Computer Applications during the academic year 2021-2022.*

Signature of Staff in Charge

Name:

Signature of H O D

Name:

Date of University practical examination

Signature of
Internal Examiner

Signature of
External Examiner

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EXPERIMENT NUMBER 1

Aim: Create a simple html file to demonstrate the use of different tags.

Program Code

```
<html>
<head><title>Ernakulam</title></head>
<body bgcolor=#000000>
<center>
<p><font color="white" size=20>Ernakulam</font></p>
<a href="Kochi_Skyline.jpg">
</a><br>
<p><font color="white" size=4>Ernakulam is the central portion of the city of Kochi in
Kerala, India and has lent its name to the Ernakulam district. Many major establishments,
including the Kerala High Court, the office of the Kochi Municipal Corporation are situated
here. Ernakulam, which is where a huge part of the commercial activity in Kochi city happen,
is known as the commercial capital of Kerala. The Ernakulam Junction is a major railway
station of the Indian Railways, and the busiest railway station in Kochi city, the 2nd busiest in
Thiruvananthapuram railway division and the 5th busiest in Southern Railways. Initially,
Ernakulam was the headquarters of the Ernakulam District but was later shifted to Kakkanad,
an eastern region in Kochi. Ernakulam was once the capital of the Kingdom of Cochin. It is
located 220 kilometres (137 mi) north - west of the state capital Thiruvananthapuram. The
city has served as an incubator for many Malayali entrepreneurs and is a major financial and
commercial hub of Kerala. The Kochi Metro's first phase runs through Ernakulam region as
well. The second phase aims to connect the CBD with the IT hub of Kakkanad.
```

The state government and the GCDA have had plans in the past to include Angamaly, Perumbavoor, Piravom and Kolenchery in the Ernakulam district; Mala and Kodungallur in the Thrissur district; Thalayolaparambu and Vaikom in Kottayam; and Cherthala in the Alappuzha district within the Kochi metropolitan limits. The newly formed metropolis would be put under the charge of a new authority called Kochi Metropolitan Regional Development Authority.

```
</p>
</font>
</body>
</html>
```

Output

Ernakulam

Ernakulam is the central portion of the city of Kochi in Kerala, India and has lent its name to the Ernakulam district. Many major establishments, including the Kerala High Court, the office of the Kochi Municipal Corporation are situated here. Ernakulam, which is where a huge part of the commercial activity in Kochi city happen, is known as the commercial capital of Kerala. The Ernakulam Junction is a major railway station of the Indian Railways, and the busiest railway station in Kochi city, the 2nd busiest in Thiruvananthapuram railway division and the 5th busiest in Southern Railways. Initially, Ernakulam was the headquarters of the Ernakulam District but was later shifted to Kakkanad, an eastern region in Kochi. Ernakulam was once the capital of the Kingdom of Cochin. It is located 220 kilometres (137 mi) north - west of the state capital Thiruvananthapuram. The city has served as an incubator for many Malayali entrepreneurs and is a major financial and commercial hub of Kerala. The Kochi Metro's first phase runs through Ernakulam region as well. The second phase aims to connect the CBD with the IT hub of Kakkanad. The state government and the GCDA have had plans in the past to include Angamaly, Perumbavoor, Piravom and Kolenchery in the Ernakulam district; Mala and Kodungallur in the Thrissur district; Thalayolaparambu and Vaikom in Kottayam; and Cherthala in the Alappuzha district within the Kochi metropolitan limits. The newly formed metropolis would be put under the charge of a new authority called Kochi Metropolitan Regional Development Authority.



EXPERIMENT NUMBER 2

Aim: Create your bio data by using the html tags for hyperlinks, images, table, frame and fonts. Make it attractive by using the various color elements. The design should contain a minimum of 3 hyperlinks

Program Code

```
<html>
<head><title>Biodata</title></head>
<body bgcolor=#08b898>
<h1><center>Biodata</center></h1>
<a href="12345.png">
</a>
<table style='font-family:"courier new",courier;font-size:20' >
<p><font face="Ariel" color=#08b898 size=9>
<tr><td><b>NAME:</b> Elizaba Mariyam Binny</td></tr>
<tr><td><b>Age:</b> 21</td></tr>
<tr><td><b>Occupation:</b> Student</td></tr>
<tr><td><b>Address:</b> Ambattil house,
edakkatuvayal p.o,</td></tr>
<tr><td><a href="ernakulam.html">Ernakulam</a>
Kerala, India</td></tr>
<tr><td><b>Father's Name:</b> Binny A Thomas</td></tr>
<tr><td><b>Educational Qualification:</b> BCA</td></tr>
<tr><td><b>Institution:</b> BPC college, piravom</td></tr>
<tr><td><b>Hobbies:</b> Painting,Swimming,Baking etc</td></tr></p>
</font>
</table>
</body>
</html>
```

Output

Biodata

NAME: Elizaba Mariyam Binny

Age: 21

Occupation: Student


Address: Ambattil house, edakkatuvayal p.o,
[Ernakulam](#) Kerala, India

Father's Name: Binny A Thomas

Educational Qualification: BCA

Institution: BPC college, piravom

Hobbies: Painting,Swimming,Baking etc



EXPERIMENT NUMBER 3

Aim: Create an application form for MCA course in FISAT.

Program Code

```
<html>

<head> <title>Application for admission to Master of Computer Applications </title>

<style>
.myDiv {
  background-color: #BE0D02;
  font-size: large;
  font-family: sans-serif;
}
.herDiv {
  background-color: #fff3c9;
  font-size: large;
  font-family: sans-serif;
}
.itdiv {
  margin-top: 80px;
  margin-left: 30%;
}
.htt {
  margin-left: 30%;
}
label{
  display: inline-block;
  float: left;
  clear: left;
  width: 250px;
  text-align: left;
}
Select
{
  display: inline-block;
  float: left;
}
input
{
  display: inline-block;
  float: center;
}
</style>
</head>
<body bgcolor=#f5f5f5 >
<div class="myDiv">
<center> 

</center>
<br><br></div><br><div class="herDiv">
```

```

<form ><hr> <CENTER><h2>REGISTRATION FOR MCA</h2></CENTER><hr>
<hr> <CENTER><h3>BASIC DETAILS</h3></CENTER>
<div class="itdiv">
  <label for="fname" align="left">Name</label>
  <input type="text" id="fname" name="fname" >
<br><br>
  <label for="lname">Address</label>
  <input type="text" id="lname" name="lname" >
<br><br>
  <label for="fname">Mobile</label>
  <input type="text" id="fname" name="fname" >
<br><br>
  <label for="fname">email</label>
  <input type="text" id="fname" name="fname" >
<br><br>
  <label for="fname">Date of Birth</label>
  <input type="date" id="fname" name="fname" >
<br>
  <br> <label for="gender">gender</label>
  <table> </tr> <td><input type="radio" id="F" name="Gender" value="Female">
Female<td></tr>
  </tr> <td><input type="radio" id="M" name="Gender" value="Male">
Male<td></tr>
  </tr> <td><input type="radio" id="T" name="Gender" value="Transgender">
Transgender<td></tr>
  </tr> <td><input type="radio" id="P" name="Gender" value="Prefer not to say">
Prefer not to say<td></tr> </table>
<br> <label for="Religion">Religion</label>
<select name="religion" size="1" required>
  <option disabled selected value> -- select an option -- </option>
  <option value="Hindu">Hindu</option>
  <option value="Christian">Christian</option>
  <option value="Muslim">Muslim</option>
  <option value="Others">Others</option>
</select><br><br>
<label>Father's Name</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<label>Father's Occupation</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<label>Work Address</label>
<textarea size=80 rows="5" cols="29"></textarea>
<br><br>
<label>Father's Contact Number</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<label>Mother's Name</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<label>Mother's Occupation</label>
<input type="text" maxlength="100" size="30" required>

```




```

<br><br>
<label>Work Address</label>
<textarea size=80 rows="5" cols="29"></textarea></td>
<br><br>
<label>Mother's Contact Number</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<label>Annual Income</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<b>Academic Qualification</b>
<br><br>
<label>Entrance Rank (if available)</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<label>10th %</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<label>12th %</label>
<input type="text" maxlength="100" size="30" required>
<br><br>
<label>Graduated in</label>
<select name="religion" size="1" required>
    <option disabled selected value> -- select an option -- </option>
    <option value="BCA">BCA</option>
    <option value="BTech">BTech</option>
    <option value="BSc Computer Science">BSc Computer
Science</option>
    <option value="Others">Others</option>
</select><br><br>
<label>Degree Percentage (upto published semester)</label>
<input type="text" maxlength="100" size="30" required>
<br><br><br><br>
<div class="htt">
<input type="submit" value="Submit" >
</div>
</div>
<br><br><br><br>
</form>
</div>
</body>
</html>

```

Output



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REGISTRATION FOR MCA

BASIC DETAILS

Name	<input type="text"/>
Address	<input type="text"/>
Mobile	<input type="text"/>
email	<input type="text"/>
Date of Birth	<input type="text" value="dd / mm / yyyy"/>
gender	<input type="radio"/> Female <input type="radio"/> Male <input type="radio"/> Transgender <input type="radio"/> Prefer not to say
Religion	<input type="text" value="-- select an option --"/>
Father's Name	<input type="text"/>
Father's Occupation	<input type="text"/>
Work Address	<div style="border: 1px solid #ccc; height: 30px; width: 100%;"></div>
Father's Contact Number	<input type="text"/>
Mother's Name	<input type="text"/>
Mother's Occupation	<input type="text"/>
Work Address	<div style="border: 1px solid #ccc; height: 30px; width: 100%;"></div>
Mother's Contact Number	<input type="text"/>
Annual Income	<input type="text"/>
Academic Qualification	
Entrance Rank (if available)	<input type="text"/>
10th %	<input type="text"/>
12th %	<input type="text"/>
Graduated in	<input type="text" value="-- select an option --"/>
Degree Percentage (upto published semester)	<input type="text"/>
<input type="button" value="Submit"/>	

EXPERIMENT NUMBER 4

Aim: Create a HTML page with different types of frames such as floating frame, navigation frame & mixed frame.

Program Code

Frame.html

```
<html>
<head>
</head>
<body>
<h2 align="center"><a href="https://www.wikipedia.org"
target="showframe2">wiki</a></h2><br>
<h2 align="center"><a href="https://www.merriam-webster.com/"
target="showframe2">dictionary</a></h2><br>
<h2 align="center"><a href="https://www.fisat.ac.in/"
target="showframe3">fisat</a></h2><br>
<h2 align="center"><a href="https://fast.com/"
target="showframe3">fast.com</a></h2><br>
</body>
</html>
```

Load.html

```
<html>
<frameset cols="300,*">
<frame name="showframe1" src="frame.html">
<frameset rows="400,*">
<frame name="showframe2">
<frame name="showframe3">
</frameset>
</frameset>
</html>
```

Output

EXPERIMENT NUMBER 5

Aim: Analyze CSS by applying the different styles using inline, external & internal style sheets in a HTML file.

Program Code

```
<html>
<head>
<title>CSS</title>
<style>
h1 {color:green;}
p {
color:orange;
font-weight:bold;}
body {
background-color: #92a8d1;}
</style><!-- internalcss --->
<link rel="stylesheet" href="styles.css"><!-- externalcss --->
</head>
<body>
<h1 style="color:blue;"> Blue h1 heading using inline css.</h1>
<!-- inlinecss --->
<p style="color:red;">A red paragraph using inline css.</p>
<h1> Green h1 heading using internal css.</h1>
<p>A orange paragraph using internal css.</p>
<h2> Blue h2 heading using external css.</h1>
<h3> Blue h3 heading using external css.</h1>
</body>
</html>
styles.css
h2 { color: purple;}
h3 { color: skyblue;
```

Output

Blue h1 heading using inline css.

A red paragraph using inline css.

Green h1 heading using internal css.

A orange paragraph using internal css.

Blue h2 heading using external css.

Blue h3 heading using external css.

EXPERIMENT NUMBER 6

Aim: Create a HTML registration form and to validate the form using JavaScript code.

Program Code

```
<!DOCTYPE html>
<html>
  <head>
    <title>Application for admission to Master of Computer Applications </title>
  </head>
  <body>
    <div class="myDiv">
      <div class="herDiv">
        <div class="itdiv">
          <div class="htt">
            <div class="Label">
              <div class="select">
                <div class="input">

```

```

function validateForm()
{
var fname = document.forms["myForm"]["fname"].value;
if (fname == "")
{alert("First Name must be filled out");
return false;
}
var address = document.forms["myForm"]["address"].value;
if (address == "")
{alert("address must be filled out");
return false;
}
var mobile = document.forms["myForm"]["mobile"].value;
if (mobile == "")
{
alert("mobile must be filled out");
return false;
}
var email = document.forms["myForm"]["email"].value;
var mailformat = /^[^w+([\.-]?\w+)*@\w+([\.-]?\w+)*(\.\w{2,3})+$/;
if(email.match(mailformat))
{
return true;
}
else
{
if (email == "")
{
alert("email must be filled out");
return false;
}
else
{
alert("You have entered an invalid email address!");
return false;
}
}
var dob = document.forms["myForm"]["dob"].value;
if (dob == "")
{alert("Date of Birth must be filled out");
return false;
}
}
</script>
</head>
<body bgcolor=#f5f5f5 >
<div class="myDiv">
<center>


</center>
<br>

```

```

<br>
</div>
<br>
<div class="herDiv">
<form name="myForm" action="/action_page_post.php"
onsubmit="return validateForm()" method="post"><hr>
<CENTER><h2>REGISTRATION FOR MCA</h2></CENTER><hr>
<hr>
<CENTER><h3>BASIC DETAILS</h3></CENTER>
<div class="itdiv">
  <label for="fname" align="left">Name</label>
  <input type="text" id="fname" maxlength="100" size="30" ><br><br>
  <label for="address">Address</label>
  <input type="text" id="address" maxlength="100" size="30" ><br><br>
  <label for="mobile">Mobile</label>
  <input type="text" id="mobile" maxlength="10" minlength="10" size="30" ><br><br>
  <label for="email">email</label>
  <input type="email" id="email" maxlength="100" size="30" ><br><br>
  <label for="dob">Date of Birth</label>
  <input type="date" id="dob" maxlength="100" size="30" ><br>
  <br>
  <label for="gender">gender</label>
  <table>
    <tr> <td><input type="radio" id="F" name="Gender" value="Female">
    Female<td></tr>
    <tr> <td><input type="radio" id="M" name="Gender" value="Male">
    Male<td></tr>
    <tr> <td><input type="radio" id="T" name="Gender" value="Transgender">
    Transgender<td></tr>
    <tr> <td><input type="radio" id="P" name="Gender" value="Prefer not to say">
    Prefer not to say<td></tr>
  </table><br>
  <label for="Religion">Religion</label>
  <select name="religion" size="1" >
    <option disabled selected value> -- select an option -- </option>
    <option value="Hindu">Hindu</option>
    <option value="Christian">Christian</option>
    <option value="Muslim">Muslim</option>
    <option value="Others">Others</option>
  </select><br><br>
  <label>Father's Name</label>
  <input type="text" maxlength="100" size="30" >
  <br><br>
  <label>Father's Occupation</label>
  <input type="text" maxlength="100" size="30" >
  <br><br>
  <label>Work Address</label>
  <textarea size=80 rows="5" cols="29"></textarea>
  <br><br>
  <label>Father's Contact Number</label>
  <input type="text" maxlength="100" size="30" >
  <br><br>

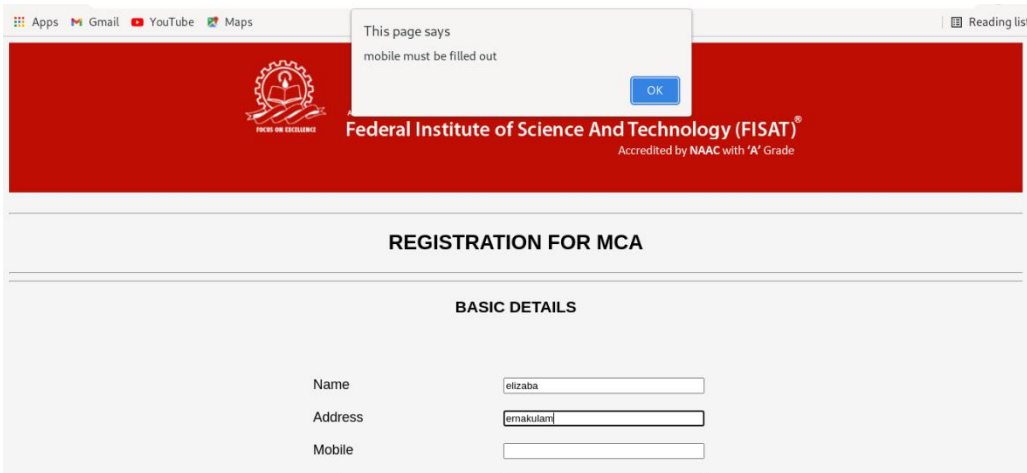
```

```

<label>Mother's Name</label>
<input type="text" maxlength="100" size="30" >
<br><br>
<label>Mother's Occupation</label>
<input type="text" maxlength="100" size="30" >
<br><br>
<label>Work Address</label>
<textarea size=80 rows="5" cols="29"></textarea></td>
<br><br>
<label>Mother's Contact Number</label>
<input type="text" maxlength="100" size="30" >
<br><br>
<label>Annual Income</label>
<input type="text" maxlength="100" size="30" >
<br><br>
<b>Academic Qualification</b><br><br>
<label>Entrance Rank (if available)</label>
<input type="text" maxlength="100" size="30" >
<br><br>
<label>10th %</label>
<input type="text" maxlength="100" size="30" >
<br><br>
<label>12th %</label>
<input type="text" maxlength="100" size="30" >
<br><br>
<label>Graduated in</label>
<select name="religion" size="1" >
    <option disabled selected value> -- select an option -- </option>
    <option value="BCA">BCA</option>
    <option value="BTech">BTech</option>
    <option value="BSc Computer Science">BSc Computer Science</option>
    <option value="Others">Others</option>
</select>
<br><br>
<label>Degree Percentage (upto published semester)</label>
<input type="text" maxlength="100" size="30" >
<br><br><br><br>
<div class="htt">
<input type="submit" value="Submit" >
</div>
</div><br><br><br><br>
</form>
</div>
</body>
</html>


```


Output



This page says
mobile must be filled out

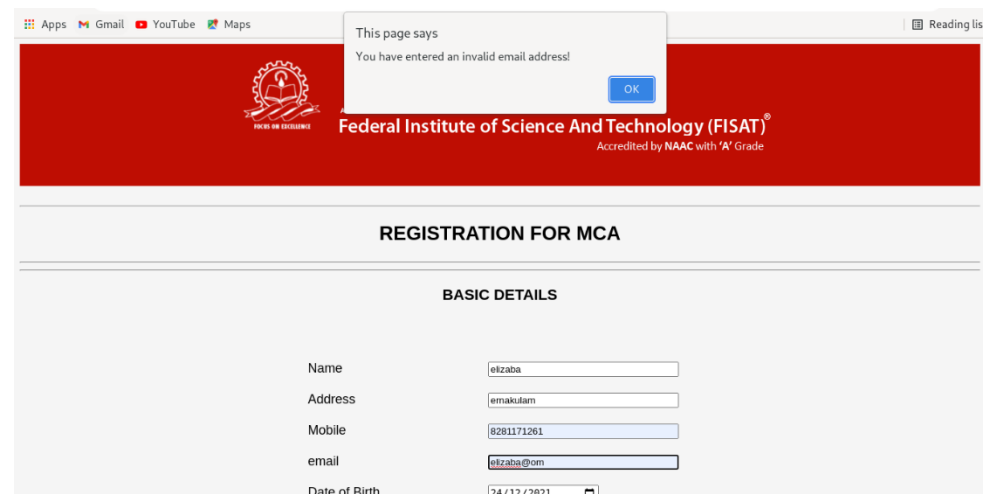
OK

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REGISTRATION FOR MCA


BASIC DETAILS

Name	<input type="text" value="elizaba"/>
Address	<input type="text" value="ernakulam"/>
Mobile	<input type="text"/>



This page says
You have entered an invalid email address!

OK

 **Federal Institute of Science And Technology (FISAT)[®]**
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REGISTRATION FOR MCA

BASIC DETAILS

Name	<input type="text" value="elizaba"/>
Address	<input type="text" value="ernakulam"/>
Mobile	<input type="text" value="8281171261"/>
email	<input type="text" value="elizaba@om"/>
Date of Birth	<input type="text" value="24/12/2021"/>

EXPERIMENT NUMBER 7

Aim: Create a HTML page to explain the use of various predefined functions in a string and math objects in JavaScript.

(String Functions- Length, slice, substring, substr, replace toUppercase, toLowercase, concat, trim, charAt, convert string to arrayindexOf, search,includes).

(Math Functions- round, ceil, floor, trunc, sign, pow, sqrt, abs, sin, cos, min, max, random, log)

Program Code

```
<!DOCTYPE html>

<html>

<body>

<h2>JavaScript String Properties</h2>

<p><b>LENGTH :</b> The length property returns the length of a string:
<br> For example length of "ABCDEFGHJKLMNOPQRSTUVWXYZ" is </p>
<p id="demo"></p>
<script>
let text = "ABCDEFGHJKLMNOPQRSTUVWXYZ";
document.getElementById("demo").innerHTML = text.length;
</script>

<p><b>SLICE :</b> The slice() method extract a part of a string
and returns the extracted parts in a new string:<br> str = "Apple, Banana, Kiwi"
<br>str.slice(7,13)</p>
<p id="demo2"></p>
<script>
let str = "Apple, Banana, Kiwi";
document.getElementById("demo2").innerHTML = str.slice(7,13);
</script>

<p><b>SUBSTR :</b> The substr() method extract a part of a string
and returns the extracted parts in a new string:<br> str = "Apple, Banana, Kiwi"
<br>str.substr(10,7)</p>
<p id="demo3"></p>
<script>
let str1 = "Apple, Banana, Kiwi";
document.getElementById("demo3").innerHTML = str1.substr(10,7);
```

```

</script>

<p><b>SUBSTRING :</b> The substring() method extract a part of a string and returns the
extracted parts in a new string:<br> str = "Apple, Banana, Kiwi" <br>str.substring(7,13)</p>

<p id="demo4"></p>

<script>
let str2 = "Apple, Banana, Kiwi";
document.getElementById("demo4").innerHTML = str2.substring(7,13);
</script>

<p><b>REPLACE :</b>Replace "Microsoft" with "W3Schools" in the paragraph below:</p>
<button onclick="myFunction5()">Try it</button>

<p id="demo5">Please visit Microsoft!</p>

<script>
function myFunction5() {
  let text5 = document.getElementById("demo5").innerHTML;
  document.getElementById("demo5").innerHTML =
    text5.replace("Microsoft","W3Schools");
}
</script>

<p><b>UPPERCASE :</b>Convert string to upper case:</p>
<button onclick="myFunction6()">Try it</button>

<p id="demo6">Hello World!</p>

<script>
function myFunction6() {
  let text6 = document.getElementById("demo6").innerHTML;
  document.getElementById("demo6").innerHTML =
    text6.toUpperCase();
}
</script>

<p><b>LOWERCASE :</b>Convert string to lower case:</p>
<button onclick="myFunction7()">Try it</button>

<p id="demo7">Hello World!</p>

<script>

```

```

function myFunction7() {
  let text = document.getElementById("demo7").innerHTML;
  document.getElementById("demo7").innerHTML =
    text.toLowerCase();
}
</script>
<p><b>CONCAT :</b>The concat() method joins two or more strings:<br>
text1 = "Hello"<br>text2 = "World!"</p>
<p id="demo8"></p>
<script>
let text11 = "Hello";
let text21 = "World!";
let text31 = text11.concat(" ",text21);
document.getElementById("demo8").innerHTML = text31;
</script>
<p><b>TRIM :</b>The trim() Method</p>
<p>trim() removes whitespace from both sides of a string:<br>text1 = "  Hello World!
";</p>
<p id="demo9"></p>
<script>
let text12 = "  Hello World!  ";
let text22 = text12.trim();
document.getElementById("demo9").innerHTML = text22;
</script>
<p><b>LEnGTH :</b>The length property returns the length of a string.</p>
<p>Find the length of "Hello World!":</p>
<p id="demo88"></p>
<script>
let text88 = "Hello World!";
let length = text88.length;
document.getElementById("demo88").innerHTML = length;
</script>

```

<p>CHARAT :The charAt() method returns the character at a given position in a string:
text = "HELLO WORLD"
charAt(0) is</p>

<p id="demo10"></p>

<script>

var text13 = "HELLO WORLD";

document.getElementById("demo10").innerHTML = text13.charAt(0);

</script>

<p>SPLIT :Display the first array element, after a string split:
text14 = "a,b,c,d,e,f"
myArray[0] is</p>

<p id="demo11"></p>

<script>

let text14 = "a,b,c,d,e,f";

const myArray = text14.split(",");

document.getElementById("demo11").innerHTML = myArray[0];

</script>

<p>SPLIT : Using String.split():
text = "Hello"
</p>

<p id="demo1"></p>

<script>

let text1 = "Hello";

const myArr = text1.split("");

text1 = "";

for (let i = 0; i < myArr.length; i++) {

text1 += myArr[i] + "
"

}

document.getElementById("demo1").innerHTML = text1;

</script>

<p>INDEXOF :indexOf() returns the position of the first occurrence of a specified value in a string.
text = "Hello world, welcome to the universe."</p>

<p>Find "welcome":</p>

<p id="demo12"></p>

<script>

let text15 = "Hello world, welcome to the universe.";

let result = text15.indexOf("welcome");

```

document.getElementById("demo12").innerHTML = result;
</script>

<p><b>SEARCH :</b>search() searches a string for a value and returns the position of the
match:<br>text1 = "Mr. Blue has a blue house"<br>search("Blue")</p>

<p id="demo13"></p>

<script>
let text16 = "Mr. Blue has a blue house"
let position = text16.search("Blue");
document.getElementById("demo13").innerHTML = position;
</script>

<p><b>INCLUDE :</b>includes() returns true if a string contains a specified
string.<br>text1 = "Hello world, welcome to the universe."</p>

<p>Find "world":</p>

<p id="demo14"></p>

<p>includes() is not supported in Internet Explorer 11 (or earlier).</p>

<script>
let text55 = "Hello world, welcome to the universe.";
let result55 = text55.includes("world");
document.getElementById("demo14").innerHTML = result55;
</script>

<h2>JavaScript Math</h2>

<p><b>Math.round:</b> Math.round(x) returns the value of x rounded to its nearest
integer:<br>4.6</p>

<p id="demo41"></p>

<script>
document.getElementById("demo41").innerHTML = Math.round(4.6);
</script>

<p><b>Math.ceil:</b> Math.ceil() rounds a number <strong>up</strong> to its nearest
integer:<br>4.4</p>

<p id="demo42"></p>

<script>
document.getElementById("demo42").innerHTML = Math.ceil(4.4);
</script>

```

<p>Math.floor(x): returns the value of x rounded down to its nearest integer:
4.7</p>

<p id="demo43"></p>

<script>

document.getElementById("demo43").innerHTML = Math.floor(4.7);

</script>

<p>Math.trunc(x): returns the integer part of x:</p>

<p id="demo44"></p>

<script>

document.getElementById("demo44").innerHTML = Math.trunc(4.7);

</script>

<p>Math.sign(x): returns if x is negative, null or positive:
-4</p>

<p id="demo45"></p>

<script>

document.getElementById("demo45").innerHTML = Math.sign(-4);

</script>

<p>Math.pow(x,y): returns the value of x to the power of y:
8^2</p>

<p id="demo46"></p>

<script>

document.getElementById("demo46").innerHTML = Math.pow(8,2);

</script>

<p>Math.sqrt(x): returns the square root of x:
64</p>

<p id="demo47"></p>

<script>

document.getElementById("demo47").innerHTML = Math.sqrt(64);

</script>

<p>Math.abs(x): returns the absolute (positive) value of x:
 -4.4</p>

<p id="demo48"></p>

<script>

document.getElementById("demo48").innerHTML = Math.abs(-4.4);

</script>

<p>Math.sin(x): returns the sin of x (given in radians):</p>

```

<p>Angle in radians = (angle in degrees) * PI / 180.</p>
<p id="demo49"></p>
<script>
document.getElementById("demo49").innerHTML =
"The sine value of 90 degrees is " + Math.sin(90 * Math.PI / 180);
</script>
<p><b>Math.cos(x):</b> returns the cosine of x (given in radians):</p>
<p>Angle in radians = (angle in degrees) * PI / 180.</p>
<p id="demo50"></p>
<script>
document.getElementById("demo50").innerHTML =
"The cosine value of 0 degrees is " + Math.cos(0 * Math.PI / 180);
</script>
<p><b>Math.min():</b> returns the lowest value in a list of arguments:<br>(0, 150, 30, 20, -
8, -200)</p>
<p id="demo51"></p>
<script>document.getElementById("demo51").innerHTML =
Math.min(0, 150, 30, 20, -8, -200);
</script>
<p><b>Math.max():</b> returns the highest value in a list of arguments.<br>(0, 150, 30, 20,
-8, -200)</p>
<p id="demo52"></p>
<script>document.getElementById("demo52").innerHTML =
Math.max(0, 150, 30, 20, -8, -200);
</script><p><b>Math.random():</b> returns a random number between 0 and 1:</p>
<p id="demo53"></p><script>
document.getElementById("demo53").innerHTML = Math.random();
</script><p><b>Math.log():</b> returns the natural logarithm of a number:</p>
<p id="demo54"></p><script>
document.getElementById("demo54").innerHTML = Math.log(10);
</script>
</body>
</html>

```


Output

JavaScript String Properties

LENGTH : The length property returns the length of a string:
For example length of "ABCDEFGHIJKLMNOPQRSTUVWXYZ" is

26

SLICE : The slice() method extract a part of a string and returns the extracted parts in a new string:
str = "Apple, Banana, Kiwi"
str.slice(7,13)

Banana

SUBSTR : The substr() method extract a part of a string and returns the extracted parts in a new string:
str = "Apple, Banana, Kiwi"
str.substr(10,7)

ana, Ki

SUBSTRING : The substring() method extract a part of a string and returns the extracted parts in a new string:
str = "Apple, Banana, Kiwi"
str.substring(7,13)

Banana

REPLACE :Replace "Microsoft" with "W3Schools" in the paragraph below:

Please visit Microsoft!

UPPERCASE :Convert string to upper case:

Hello World!

LOWERCASE :Convert string to lower case:

Hello World!

CONCAT :The concat() method joins two or more strings:
text1 = "Hello"
text2 = "World!"

Hello World!

TRIM :The trim() Method

trim() removes whitespace from both sides of a string:
text1 = " Hello World! ";

Hello World!

LENGTH :The length property returns the length of a string.

Find the length of "Hello World!":

12

CHARAT :The charAt() method returns the character at a given position in a string:
text = "HELLO WORLD"
charAt(0) is

H

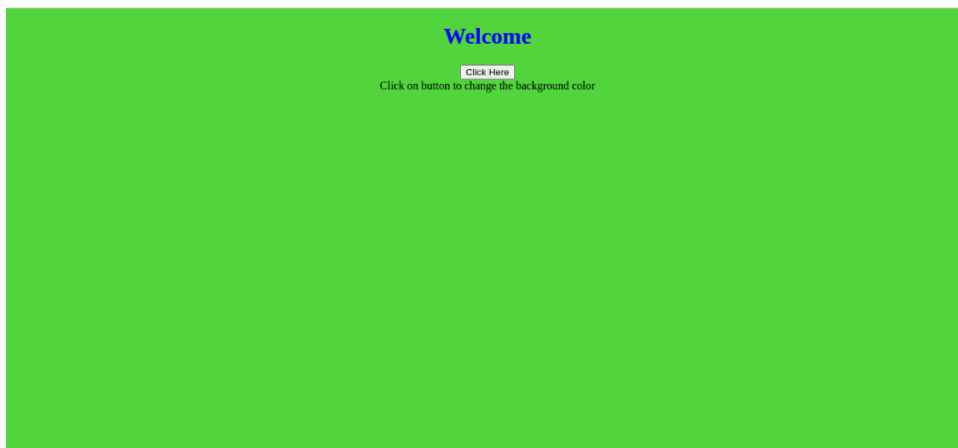
SPLIT :Display the first array element, after a string split:
text14 = "a,b,c,d,e,f"
myArray[0] is

EXPERIMENT NUMBER 8

Aim: Create a HTML page to change the background color for every click of a button using JavaScript Event Handling.

Program Code

```
<!DOCTYPE HTML>
<html>
<head>
<title>
changing the background color
</title>
</head>
<body style = "text-align:center;">
<h1 style = "color:blue;" >
Welcome
</h1>
<button type="button" id="color-button" onclick="changeBg()">Click Here
</button>
<br>
<script>
document.writeln( "Click on button to change the background color");
const pageBody = document.querySelector("body");
function changeBg()
{
let color = '#'+(Math.random()*0xFFFFFFFF<<0).toString(16);
pageBody.style.background = color;
}
</script>
</body>
</html>
```

Output

EXPERIMENT NUMBER 9

Aim: Generate the calendar using JavaScript code by getting the year and month from the user.

Program Code

```
<!DOCTYPE HTML>
<html>
<head><title>Calendar</title>
<style>
table {
border-collapse: collapse;}
td, th {
border: 1px solid black;
padding: 3px;
text-align: center;}
th {
font-weight: bold;
background-color: grey;}
</style>
</head>
<body>
<b>CALENDAR</b><br>
Enter The year : <input type="number" name="cal" id="cal" /><br>
Enter The Month: <input type="number" name="month" id="month" />
<br>
<button onclick="calculate()">Click here</button>
<div id="calendar"></div>
<script>
function calculate() {
    var year = document.getElementById("cal").value;
    var month = document.getElementById("month").value;
    createCalendar(year,month);}
function getDay(date) {
    let day = date.getDay();
    if (day === 0) day = 7;
    return day - 1;}
function createCalendar(year, month) {
    let mon = month - 1;
    let d = new Date(year, mon);
    let table =
'<table><tr><th>MON</th><th>TUE</th><th>WED</th><th>THU</th><th>FRI</th><th>
SAT</th><th>SUN</th></tr><tr>';
    for (let i = 0; i < getDay(d); i++) {
        table += '<td>*</td>'; }
    while (d.getMonth() === mon) {
        table += '<td>' + d.getDate() + '</td>';
        if (getDay(d) % 7 === 6) {
            table += '</tr><tr>'; }
        d.setDate(d.getDate() + 1); }
```

```

if (getDay(d) != 0) {
  for (let i = getDay(d); i < 7; i++) {
    table += '<td>*</td>'; }}
table += '</tr></table>';
document.getElementById("calendar").innerHTML = table;}
createCalendar(calendar, year, month);
</script>
</body>
</html>

```

Output

CALENDAR CALENDAR

Enter The year :

Enter The Month:

[Click here](#)

MON	TUE	WED	THU	FRI	SAT	SUN
*	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	*	*	*	*	*	*

EXPERIMENT NUMBER 10

Aim: Compose Electricity bill from user input based on a given tariff using PHP.

Program Code

```
<!DOCTYPE html>
<head>
    <title>PHP - Calculate Electricity Bill</title>
</head>
<?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 . ' - ' . $result;    }}
/** * To calculate electricity bill as per unit cost */
function calculate_bill($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, '.', '');
}
?>
<body>
    <div id="page-wrap">
        <center><h1>Form to Calculate Electricity Bill</h1>
        <form action="" method="post" id="quiz-form">
            Date of billing: <input type="date" name="date_bill"><br>
            Consumer Name: <input type="text" name="cname"><br>
            Consumer id: <input type="number" name="cnum"><br>
            Units Used
            <input type="number" name="units" id="units" placeholder="Please enter
no. of Units used" /><br>
            <input type="submit" name="unit-submit" id="unit-submit" value="Submit"
/><center>
        </form>
```

```

<div>
  <?php echo '<br />' . $result_str; ?>
</div>
</div>
</body>
</html>

```

Output

Form to Calculate Electricity Bill

Date of billing:

Consumer Name:

Consumer id:

Units Used

Total amount of 5 - 17.50

EXPERIMENT NUMBER 11

Aim: Build a PHP code to store name of students in an array and display it using print_r function. Sort and Display the same using asort & arsort functions.

Program Code**P11.html**

```
<!DOCTYPE html>

<html>

<body>

<h2>Students Name: </h2>

<?php
$a = array("Angel"=>"34", "Ann"=>"35", "Sree"=>"23", "Anz"=>"11", "Anju"=>"9");
print_r($a);
echo "<h2>Ascending Order</h2>";
echo "\n";
asort($a);
foreach($a as $x=>$x_value)
{
echo "Key=" . $x . ", Value=" . $x_value;
echo "<br>";
}
echo "\n";
echo "<h2>Descending Order</h2>";
echo "\n";
arsort($a);
foreach($a as $x=>$x_value)
{
echo "Key=" . $x . ", Value=" . $x_value;
echo "<br>";
}
?>

</html>
```

P11.php

```

<!DOCTYPE html>

<html><body><h2>Students Name: </h2>

<?php
$a = array("Angel"=>"34", "Ann"=>"35", "Sree"=>"23", "Anz"=>"11", "Anju"=>"9");
print_r($a);

echo "<h2>Ascending Order</h2>";

echo "\n";

asort($a);

foreach($a as $x=>$x_value)

{ echo "Key=" . $x . ", Value=" . $x_value;

echo "<br>"; }

echo "\n";

echo "<h2>Descending Order</h2>";

echo "\n";

arsort($a);

foreach($a as $x=>$x_value)

{ echo "Key=" . $x . ", Value=" . $x_value;

echo "<br>"; }

?>

</html>

```

Output**Students Name:**

```
Array ( [Angel] => 34 [Ann] => 35 [Sree] => 23 [Anz] => 11 [Anju] => 9 )
```

Ascending Order

```
Key=Anju, Value=9
Key=Anz, Value=11
Key=Sree, Value=23
Key=Angel, Value=34
Key=Ann, Value=35
```

Descending Order

```
Key=Ann, Value=35
Key=Angel, Value=34
Key=Sree, Value=23
Key=Anz, Value=11
Key=Anju, Value=9
```


EXPERIMENT NUMBER 12

Aim: Build a PHP code to store name of Indian Cricket players in an array and display the same in HTML table.

Program Code

```
<!DOCTYPE html>
<html>
<body>
<?php
$Indcricketers= array("Virat Kohli", "M S Dhoni", "Rohit Sharma");
echo "Indian Cricketers: " . $Indcricketers[0] . ", " . $Indcricketers[1] .
" and " . $Indcricketers[2] . ".";
echo "<h3>INDIAN CRICKETERS</h3><table border='1'>
    <tr><th>NO</th><th>NAMES</th></tr>
    <tr><td>1</td> <td>Virat Kohli</td>    </tr>
    <tr><td>2</td> <td>M S Dhoni</td>    </tr>
    <tr><td>3</td> <td>Rohit Sharma</td> </tr>";
?>
</body>
</html>
```

Output

Indian Cricketers: Virat Kohli, M S Dhoni and Rohit Sharma.

INDIAN CRICKETERS

NO	NAMES
1	Virat Kohli
2	M S Dhoni
3	Rohit Sharma

EXPERIMENT NUMBER 13

Aim: Using PHP and MySQL, develop a EXPERIMENT NUMBER to accept book information viz. Accession number, title, authors, edition and publisher from a web page and store the information in a database and to search for a book with the title specified by the user and to display the search results with proper headings

Program CodeBook_info.html

```
<html>
<head>
<title>book</title>
</head>
<body align="center"><u>BOOK INFORMATION SYSTEM</u><br><br>
<a href="add_book.html">Add Book</a><br><br>
<a href="search.html">Search Book</a><br><br>
</body>
</html>
```

Add_book.html

```
<html><head>
<title>add book</title>
<style>
    label {
        display: inline-block;
        width: 300px;
    }
</style>
</head>
<body>
<form name="frm1" action="addl.php" method="POST">
<b><u>Enter Book Details</u></b><br><br>
<label>Accession Number</label>
<input type="text" name="num"><br><br>
<label>Title:</label><input type="text" name="tit"><br><br>
<label>Author:</label><input type="text" name="author"><br><br>
```

```

<label>Edition:</label><input type="text" name="edi"><br><br>
<label>Publisher:</label><input type="text" name="pub"><br><br>
<input type="submit" name="Submit">
<input type="reset" name="Reset">
</form>
</body>
</html>

```

Addl.php

```

<?php
$num=$_POST['num'];
$tit=$_POST['tit'];
$author=$_POST['author'];
$edi=$_POST['edi'];
$pub=$_POST['pub'];
$con=new mysqli("localhost","fisat","fisat","fisatdb");
if($con==false)
{
echo "Failed to connect";
}
else
{
echo "connected";
}
$sql="INSERT INTO book28 VALUES($num,'$tit','$author','$edi','$pub)";
if($con->query($sql))
{
echo "<BR>";
echo 'New row added';
}
else
{
echo "ERROR:could not execute query";
}

```

```
}  
$con->close();  
?>  
Search.html  
<html>  
<head>  
<title>search</title>  
<style>  
    label {  
        display: inline-block;  
        width: 300px;  
    }  
</style>  
</head>  
<body>  
<form name="frm2" action="search1.php" method="POST">  
<b><u>SEARCH A BOOK</u></b><br><br>  
<label>Enter book title:</label>  
<input type="text" name="txt"><br><br>  
<input type="submit" name="Submit">  
</center>  
</form>  
</body>  
</html>
```

Search1.php

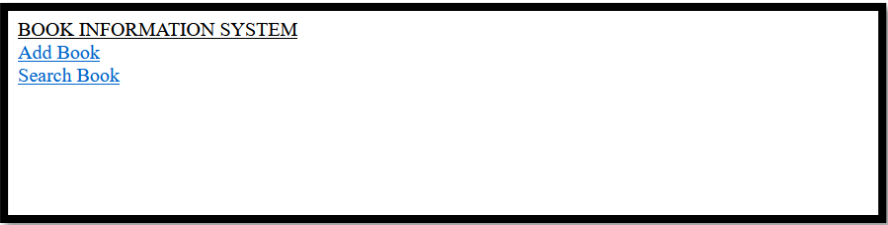
```
<?php  
$title=$_POST['txt'];  
$con=new mysqli("localhost","fisat","fisat","fisatdb");  
if($con==false)  
{  
    echo "Failed to connect";  
}
```

```

}
else
{
echo "connected\n";
}
$sql="select * from book28 where Title='$title'";
if($result=$con->query($sql))
{
if($result->num_rows>0)
{
while($row=$result->fetch_array())
{ echo "\n".$row[0].":".$row[1].":".$row[2].":".$row[3].":".
    $row[4]."\n";}
$result->close();
}
else
{
echo "\nCould not found the book"; }
}
else
{ echo "\nError:could not connect"; }
$con->close();
?>

```

Output



BOOK INFORMATION SYSTEM
[Add Book](#)
[Search Book](#)

add book
localhost/~stud/P13/add_book.html
Enter Book Details
Accession Number: 01
Title: Bhumi
Author: Kalidas
Edition: 3
Publisher: Abc
Submit Query
Reset

localhost/~stud/P14/addl.php
connected
New row added

search
localhost/~stud/P13/search.html
SEARCH A BOOK
Enter book title: Bhumi
Submit Query

localhost/~stud/P13/searchl.php
connected 1:Bhumi:Kalidas:3:Abc

EXPERIMENT NUMBER 14

Aim: Using PHP and MySQL, develop a EXPERIMENT NUMBER to collect airline details and display all the airlines between a particular source and destination.

Program CodeAirline.html

```
<html>
<head>
<title>Airline</title>
</head>
<body align="center"><u>AIRLINE SYSTEM</u><br><br>
<a href="add.html">Add Airline</a><br><br>
<a href="search.html">Search Airline</a><br>
</body>
</html>
```

Add.html

```
<html><head>
<title>Airline details</title></head>
<style>
    label {
        display: inline-block;
        width: 300px;
    }
</style>
<body>
<form name="frm1" action="addl.php" method="POST">
<b><u>Enter Airline Details</u></b><br><br>
<label>Airline Number:</label>
<input type="number" name="num"><br></b><br>
<label>Name:</label>
<input type="text" name="name"><br></b><br>
<label>Source:</label>
<input type="text" name="src"><br></b><br>
```

```
<label>Destination:</label><input type="text" name="dstn"><br></b><br>
<label>Date:</label><input type="date" name="date"><br></b><br>
<input type="submit" name="Submit">
<input type="reset" name="Reset">
</form>
</body>
</html>
```

Addl.php

```
<?php
$num=$_POST['num'];
$name=$_POST['name'];
$src=$_POST['src'];
$dstn=$_POST['dstn'];
$date=$_POST['date'];
$con=new mysqli("localhost","fisat","fisat","fisatdb");
if($con==false)
{
echo "Failed to connect\n";
}
else
{
echo "connected\n";
}
$sql="INSERT INTO airline028 VALUES($num,'$name','$src','$dstn','$date)";
if($con->query($sql))
{
echo "<BR>";
echo "New row added\n";
}
else
{
echo "ERROR:could not execute query";
```



```

}
$con->close();
?>
Search.html
<html>
<head>
<title>search</title>
<style>
    label {
        display: inline-block;
        width: 300px;
    }
</style>
</head>
<body>
<form name="frm2" action="search1.php" method="POST">
<b><u>SEARCH AIRLINE</u></b><br><br>
<label>Enter Source:</label>
<input type="text" name="src"><br><br>
<label>Enter Destination:</label>
<input type="text" name="dstn"><br><br>
<input type="submit" name="Submit">
</center>
</form>
</body>
</html>
Search1.php
<?php
$src=$_POST['src'];
$dstn=$_POST['dstn'];
$con=new mysqli("localhost","fisat","fisat","fisatdb");
if($con==false){

```

```

echo "Failed to connect";}

else{
echo "connected\n";}

$sql="select * from airline028 where Source='$src' and Destination='$dstn';
if($result=$con->query($sql)){
if($result->num_rows>0){
while($row=$result->fetch_array())
{ echo "\n".$row[0].":".$row[1].":".$row[2].":".$row[3].":".$row[4]."\n\n";}
$result->close();}
else{
echo "\nCould not found the book"; }}
else {
echo "\nError:could not connect"; }
$con->close();
?>

```

Output

