

Web Technology-HTML, CSS, JS and PHP()
SoCSET BTech Semester I Class 03
JavaScript

SET IV

Practical List

Topics	Practical No.	Description	Release Date	Submission Date	Remarks and Sign of Subject Teacher
JavaScript Programs	1	Hello, World!	Oct 5,2023	October 19,2023	
	2	Addition Operation			
	3	To-do List			
	4	Random Number Generator			
	5	Change background color			
	6	Number Guessing Game			
	7	Simple calculator containing add, subtract, multiply, division and modulo			

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Practical 1

Aim: Create an HTML page that displays “Hello, World!” when a button is clicked

HTML Code:

```
<html>
  <head>
    <title></title>
    <link rel="stylesheet" href="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET
4\CSS\HelloWorld.css">
    <script src="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET 4\Java
Script\HelloWorld.js"></script>
  </head>
  <body>
    <div class="main">
      <h1>Kindly Click the button!!!</h1>
      <div class="inner">
        <button onclick="say()" class="btn">Click me!!</button>
        <p id="hell"></p>
      </div>
    </div>
  </body>
</html>
```

CSS Code:

```
.main{
  background-color: rgb(186, 186, 186);
  color: white;
  align-items: center;
  text-align: center;
  width: 50%;
  height: 40%;
}
.inner{
  width: 80%;
  height: 60%;
  background-color: black;
  align-items: center;
  justify-content: center;
  margin-left: 8%;
}
.btn{
```

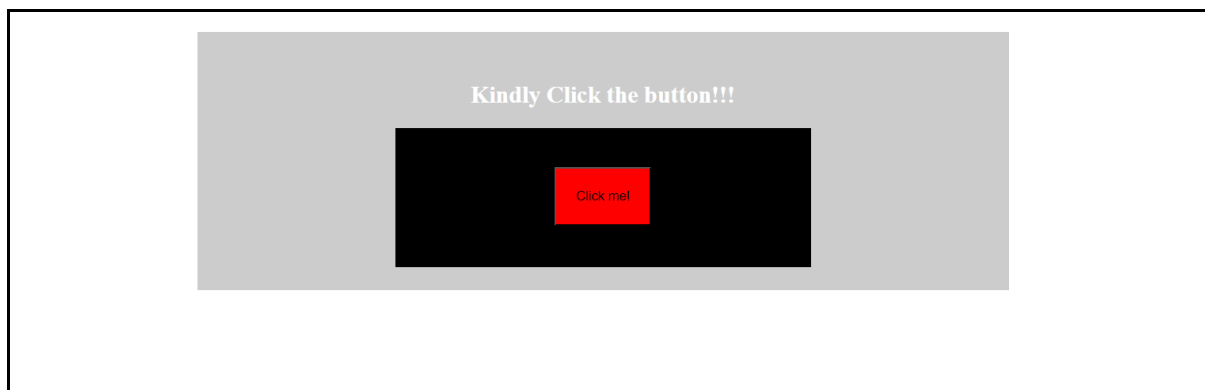
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```
margin-top: 5%;  
border: none;  
height: 40%;  
width: 20%;  
background-color: red;  
color: white;  
}  
h1{  
padding-top: 5%;  
}
```

JS Code:

```
function say(){  
    alert('Hello World');  
    var h = document.getElementById("hell");  
    h.innerHTML = "Hello World";  
}
```

Output:



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Practical 2

Aim: Build a UI to add two numbers entered by the user and display the result

HTML Code:

```
<html>
  <head>
    <title></title>
    <link rel="stylesheet" href="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET
4\CSS\Add.css">
    <script src="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET 4\Java
Script\Add.js"></script>
  </head>
  <body>
    <div class="main">
      <h2>Simple Arithmetic Operation</h2>
      <div class="inner">
        <form>
          <input type="text" id="num1" class="num">
          <br><br>
          <input type="text" id="num2" class="num">
          <br><br>
          <input class="btn" value="Addition (+)" onclick="say()" type="button">
          <br><br>
          <p id="ans"></p>
          <br>
        </form>
      </div>
    </div>
  </body>
</html>
```

CSS Code:

```
.main{
  background-color: rgb(235, 235, 235);
  width: 50%;
  position: absolute;
  margin-top: 15%;
  margin-left: 25%;
  text-align: center;
  align-items: center;
  border-radius: 5%;
  font-family: sans-serif;
}
```

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```
.inner{
  background-color: white;
  padding-top: 3%;
  border-radius: 5%;
  width: 65%;
  margin-left: 15%;
  margin-bottom: 5%;
}
.num{
  width: 70%;
  padding: 0.5%;
}
.btn{
  color: white;
  background-color: rgb(41, 247, 0);
  width: 20%;
  align-items: center;
  text-align: center;
  border-radius: 5px;
  border: none;
  padding: 1% 0%;
  text-transform: uppercase;
}
p{
  font-weight: bold;
}
```

JS Code:

```
function say(){
  var num1 = parseInt(document.getElementById("num1").value);
  var num2 = parseInt(document.getElementById("num2").value);
  var res = num1+num2;
  var h = document.getElementById("ans");
  h.innerHTML = "Result : "+res;
}
```

Output:

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Simple Arithmetic Operation

Addition (+)

Result: Result: 9245

Output:

Simple Arithmetic Operation

ADDITION (+)

Result : 5

Practical 3

Aim: Create a to-do list where users can add tasks and mark them as complete

HTML Code:

```
<!DOCTYPE html>
<html>
<head>
  <title>To-Do List</title>
  <link rel="stylesheet" href="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET
4\CSS\ToDoList.css">
</head>
<body>
```

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```
<div class="container">
<h1>To Do List</h1>
<div = "main">
    <div class="addTask">
        <input id="text" type="text" placeholder="Add a Task">
        <button id="add">Add</button>
    </div>

    <h3>INCOMPLETE TASKS</h3>
    <ol class="notCompleted">
    </ol>

    <h3>COMPLETED TASKS</h3>
    <ol class="Completed">
    </ol>
</div>
<script src="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET 4\Java
Script\ToDoList.js"></script>
</body>
</html>
```

CSS Code:

```
body{
    text-align: center;
    position: absolute;
    top: 50%;
    left: 50%;
    transform: translate(-50%,-50%);
    font-family: sans-serif;
}
.container{
    padding: 5%;
    width: 120%;
    border-radius: 20px;
    background-color: rgba(200, 200, 200, 0.853);
}
#text{
    font-size: large;
    text-align: center;
    border: 1px solid white;
    padding: 2%;
    border: 1px solid black;
    border-radius: 10px ;
}
button{
    font-size: large;
    background-color:rgb(0, 218, 0);
```

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```
color: white;
border-radius: 5%;
border: 1px solid white;
margin-left: 2%;
}
.Completed{
color: rgb(0, 205, 0);
font-size: large;
}
.notCompleted{
color: red;
font-size: large;
}
```

JS Code:

```
const input = document.querySelector('input');
const btn = document.querySelector('.addTask > button');

btn.addEventListener('click', addList);
input.addEventListener('keyup', (e) => {
    (e.keyCode === 13 ? addList(e) : null);
})

function addList(e) {
    const notCompleted = document.querySelector('.notCompleted');
    const Completed = document.querySelector('.Completed');

    const newLi = document.createElement('li');
    const checkBtn = document.createElement('button');
    const delBtn = document.createElement('button');

    checkBtn.innerHTML = 'Complete';
    delBtn.innerHTML = 'Delete';

    if(input.value !== "") {
        newLi.textContent = input.value;
        input.value = "";
        notCompleted.appendChild(newLi);
        newLi.appendChild(checkBtn);
        newLi.appendChild(delBtn);
    }
    checkBtn.addEventListener('click', function() {
        const parent = this.parentNode;
        parent.remove();
        Completed.appendChild(parent);
    });
}
```


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```

        checkBtn.style.display = 'none';
    });

    delBtn.addEventListener('click', function(){
        const parent = this.parentNode;
        parent.remove();
    });
}

```

Output:

Todo List

Go to the gym in the morning Complete Delete

Visit mom in the afternoon Complete Delete

Attend the kids School concert Complete Delete

Dining with family at the La Italia Complete Delete

Add Todo

Todo List

Go to the gym in the morning Complete Delete

Visit mom in the afternoon Complete Delete

Attend the kids School concert Complete Delete

Dining with family at the La Italia Complete Delete

Add Todo

To Do List

Add

INCOMPLETE TASKS

1. To Walk Complete Delete

2. To Meditate Complete Delete

COMPLETED TASKS

To Do List

Add

INCOMPLETE TASKS

1. To Walk Complete Delete

COMPLETED TASKS

1. To Meditate Delete

Practical 4

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Aim: Create a web page that generates and displays a random number between 1 to 100 when a button is clicked.

HTML Code:

```
<html>
  <head>
    <title></title>
    <link rel="stylesheet" href="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET
4\CSS\Random number.css">
    <script src="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET 4\Java Script\Random
number.js"></script>
  </head>
  <body>
    <div class="main">
      <h1>Random Number Generator</h1>
      <br><br>
      <button onclick="say()" class="btn">Generate Random Number</button>
      <br><br>
      <p id="rn"></p>
    </div>
  </body>
</html>
```

CSS Code:

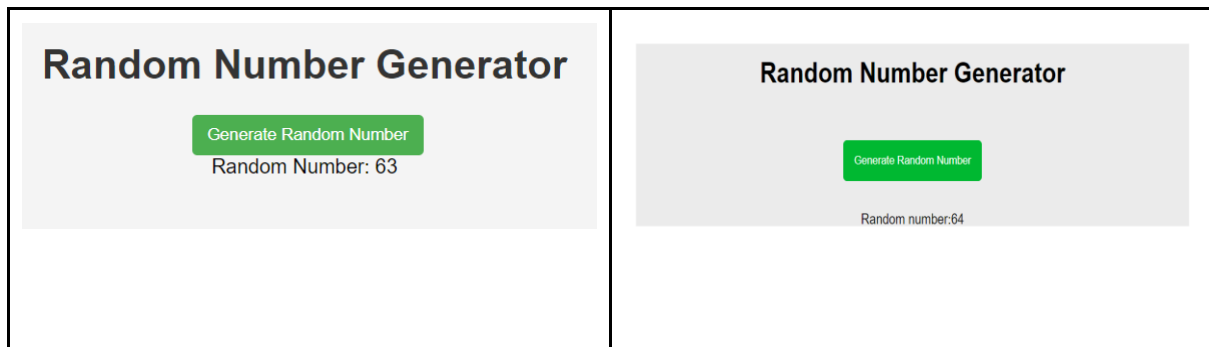
```
.main{
  margin-top: 15%;
  margin-left: 25%;
  text-align: center;
  align-items: center;
  justify-content: center;
  background-color: rgb(235, 235, 235);
  font-family: sans-serif;
  width: 50%;
  height: 30%;
}
h1{
  padding-top: 2%;
}
.btn{
  background-color: rgb(0, 184, 49);
  border: none;
  border-radius: 5px;
  padding: 2%;
  color: white;
  cursor: pointer;
}
```

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JS Code:

```
function say(){
    var a = parseInt(Math.floor(Math.random()*100)+1);
    var h = document.getElementById("rn");
    h.innerHTML = ("Random number:"+a)
}
```

Output:



Practical 5

Aim: Create a web page with a button that changes the background color randomly when clicked

HTML Code:

```
<html>
  <head>
    <link rel="stylesheet" href="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET
4\CSS\Random color.css">
    <script src="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET 4\Java Script\Random
color.js"></script>
  </head>
  <body>
    <button onclick="change()" class="btn">Click</button>
  </body>
</html>
```

CSS Code:

```
body{
```

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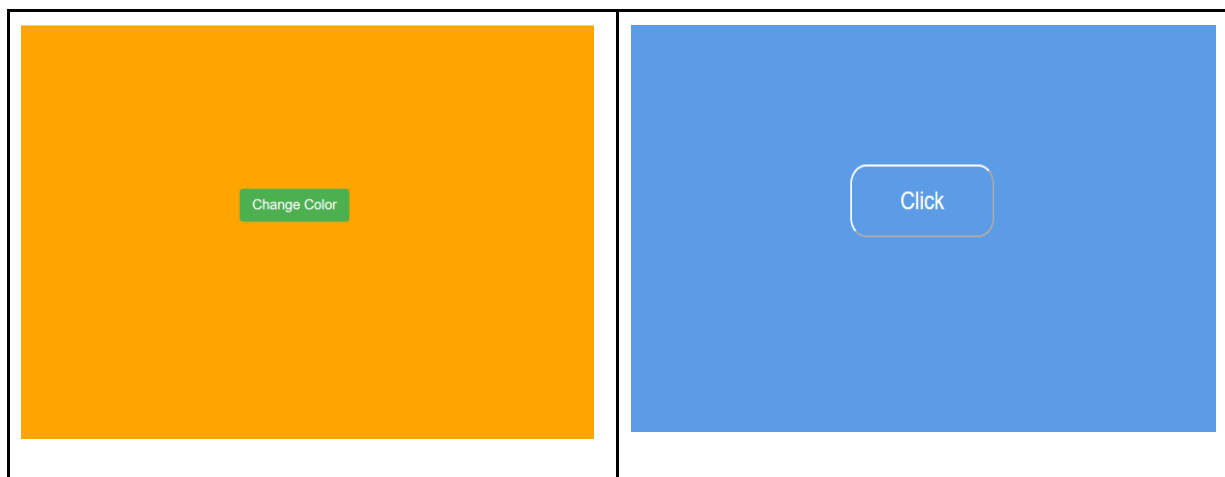
```
align-items: center;
justify-content: center;

}
.btn{
margin-top: 20%;
margin-left: 45%;
padding: 1%;
padding-left: 3%;
padding-right: 3%;
border-radius: 15px;
color: white;
background-color: transparent;
border-color: white;
cursor: pointer;
font-size: larger;
font-family: sans-serif;
}
```

JS Code:

```
function change(){
var r = Math.floor(Math.random() * 255)
var g = Math.floor(Math.random() * 255)
var b = Math.floor(Math.random() * 255)
var bg = "rgb("+r + ","+g +","+b +")"
document.body.style.background = bg
}
```

Output:



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Practical 6

Aim: Create a number guessing game where the computer generates a random number, and the player must guess it. Provide feedback on whether the guess is too high or too low.

HTML Code:

```
<html>
  <head>
    <title>Guess the number</title>
    <link rel="stylesheet" href="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET
4\CSS\Guessing game.css">
    <script src="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET 4\Java
Script\Guessing game.js"></script>
  </head>
  <body>
    <div class="main">
      <h2>Number Guessing Game</h2>
      <div class="inner">
        <p id="one">Guess a number between 1 and 100</p>
        <input type="text" id="num" placeholder="Enter Your Guess">
        <button onclick="say()" class="btn">Submit Guess</button>
      </div>
    </div>
  </body>
</html>
```

CSS Code:

```
.main{
  background-color: rgb(235, 235, 235);
  width: 50%;
  position: absolute;
  margin-top: 15%;
  margin-left: 25%;
  text-align: center;
  align-items: center;
  border-radius: 5%;
  font-family: sans-serif;
  height: 30%;
}
.inner{
  background-color: white;
  padding-top: 3%;
  border-radius: 5%;
```

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```
width: 65%;
margin-left: 15%;
margin-bottom: 5%;
height: 50%;
width: 60%;
}
.btn{
color: white;
background-color: rgb(34, 204, 0);
width: 25%;
align-items: center;
text-align: center;
border-radius: 5px;
border: none;
padding: 1% 0%;
text-transform: uppercase;
margin-left: 2%;
}
p{
font-weight: 400;
}
```

JS Code:

```
function say(){
var thinkingof;
var Guess ;
thinkingof = 65
Guess = parseInt(document.getElementById("num").value)
var message = document.getElementById("one");
if (Guess>thinkingof){
message.textContent = 'Your Guess is Too High. Try again.';
}
else if(Guess<thinkingof){
message.textContent = 'Your Guess is Too low. Try again.';
}
else{
message.textContent = 'Congratulations! You Guessed the correct number'
}
}
```

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Output:

<h3>Number Guessing Game</h3> <p>Guess a number between 1 and 100</p> <div> <input type="text" value="Enter your guess"/> <input type="button" value="Submit Guess"/> </div>	<h3>Number Guessing Game</h3> <p>Too low. Try again.</p> <div> <input type="text" value="30"/> <input type="button" value="Submit Guess"/> </div>
<h3>Number Guessing Game</h3> <p>Too high. Try again.</p> <div> <input type="text" value="50"/> <input type="button" value="Submit Guess"/> </div>	<h3>Number Guessing Game</h3> <p>Congratulations! You guessed the correct number.</p>

<h3>Number Guessing Game</h3> <p>Guess a number between 1 and 100</p> <div> <input type="text" value="Enter Your Guess"/> <input type="button" value="SUBMIT GUESS"/> </div>	<h3>Number Guessing Game</h3> <p>Your Guess is Too low. Try again.</p> <div> <input type="text" value="25"/> <input type="button" value="SUBMIT GUESS"/> </div>
<h3>Number Guessing Game</h3> <p>Your Guess is Too High. Try again.</p> <div> <input type="text" value="75"/> <input type="button" value="SUBMIT GUESS"/> </div>	<h3>Number Guessing Game</h3> <p>Congratulations! You Guessed the correct number</p> <div> <input type="text" value="65"/> <input type="button" value="SUBMIT GUESS"/> </div>

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Practical 7

Aim: Create a simple calculator to perform the operations of addition, subtraction, multiplication, division and modulo of two numbers.

HTML Code:

```
<html>
  <head>
    <title>Calculator</title>
    <link rel="stylesheet" href="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET
4\CSS\calc.css">
    <script src="C:\Users\Harshit\Desktop\SEM 1\WT\PRACTICALS\SET 4\Java
Script\calc.js"></script>
  </head>
  <body>
    <div class="main">
      <h1>CALCULATOR</h1>
      <form>
        <label for="num">NUMBER 1:</label>
        <input type="text" id="num1">
        <br><br>
        <label for="num">NUMBER 2:</label>
        <input type="text" id="num2">
        <br><br>
        <br>
        <input type="button" class="button glow" value="ADDITION (+)" onclick="num()">

        <input type="button" class="button glow" value="SUBTRACT (-)" onclick="sub()">
        <br><br>
        <input type="button" class="button glow" value="MULTIPLY (*)" onclick="mult()">

        <input type="button" class="button glow" value="DIVISION (/)" onclick="div()">
        <br><br>
        <input type="button" class="button glow" value="MODULO (%)" onclick="mod()">
      </form>
    </div>
  </body>
</html>
```

CSS Code:

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```
body{
  background-image: url(https://img.freepik.com/free-photo/abstract-luxury-gradient-blue-
background-smooth-dark-blue-with-black-vignette-studio-banner_1258-
52765.jpg?size=626&ext=jpg&ga=GA1.1.1413502914.1697155200&semt=ais );
  background-size: 100% 100%;
}
.main{
  align-items: center;
  justify-content: center;
  text-align: center;
  background-image: url(https://removal.ai/wp-content/uploads/2021/05/image14-1.png );
  margin-top: 15%;
  margin-left: 25%;
  height: 50%;
  width: 50%;
  font-family: sans-serif;
  border: 3px;
  border-style: solid;
  border-color: cyan;
  border-radius: 20%;
  color: white;
  background-size: cover;
}
.button{
  width: 20%;
  height: 10%;
  background-color: rgb(50, 134, 243);
  color: skyblue;
  font-size: 0.8em;
  cursor: pointer;
  border-radius: 10%;
  border-color: rgba(16, 209, 209, 0.679);
}
h1{
  font-weight: 700;
  letter-spacing: 20px;
}
.glow:hover{
  color: white;
  box-shadow: 0 25px 30px rgb(108, 217, 241);
}
```

JS Code:

```
function num(){
  var num2 = parseInt(document.getElementById("num1").value);
  var num3 = parseInt(document.getElementById("num2").value);
```

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```

var result = num2+num3;
alert("Result is:"+result);
}
function sub(){
    var num2 = parseInt(document.getElementById("num1").value);
    var num3 = parseInt(document.getElementById("num2").value);
    var result = num2-num3;
    alert("Result is:"+result);
}
function mult(){
    var num2 = parseInt(document.getElementById("num1").value);
    var num3 = parseInt(document.getElementById("num2").value);
    var result = num2*num3;
    alert("Result is:"+result);
}
function div(){
    var num2 = parseInt(document.getElementById("num1").value);
    var num3 = parseInt(document.getElementById("num2").value);
    var result = num2/num3;
    alert("Result is:"+result);
}
function mod(){
    var num2 = parseInt(document.getElementById("num1").value);
    var num3 = parseInt(document.getElementById("num2").value);
    var result = num2%num3;
    alert("Result is:"+result);
}

```

Output

Simple Calculator

Number 1:

Number 2:

Addition (+)

Subtraction (-)

Multiplication (*)

Division (/)

Modulo (%)

Result: 19101

Simple Calculator

Number 1:

Number 2:

Addition (+)

Subtraction (-)

Multiplication (*)

Division (/)

Modulo (%)

Result: -9970

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