2018-
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Web Enggineering

PRACTICAL FILE

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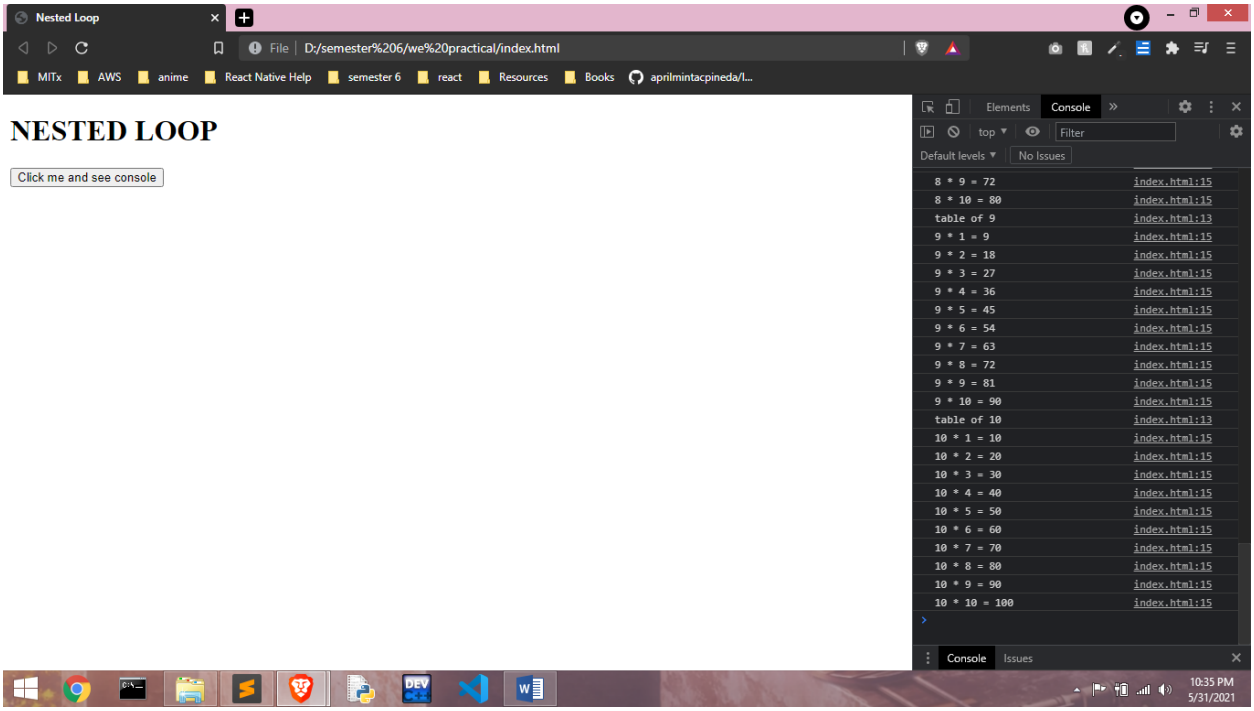
Practical 1: Using JavaScript demonstrate Nested loop.

CODE:

```
<!DOCTYPE html>
<html>
<head>
	<title>Nested Loop</title>
</head>
<body>
	<h1>NESTED LOOP</h1>
	<button onclick="nestedLoop()">Click me and see console</button>
</body>
<script type="text/javascript">
	function nestedLoop(){
		for (var i = 0; i <= 10; i++) {
		console.log(`table of ${i}`)
		for (var j = 1; j <= 10; j++) {
			console.log(`${i} * ${j} = ${i*j}` )
	}
	}
	}
</script>
</html>
```

Output:


Nested Loop
File | D:/semester%206/we%20practical/index.html
MITx
AWS
anime
React Native Help
semester 6
react
Resources
Books
aprilmintacpineda/l...
NESTED LOOP
Click me and see console
Elements
Console
top
Filter
Default levels
No Issues
8 * 9 = 72 index.html:15
8 * 10 = 80 index.html:15
table of 9 index.html:13
9 * 1 = 9 index.html:15
9 * 2 = 18 index.html:15
9 * 3 = 27 index.html:15
9 * 4 = 36 index.html:15
9 * 5 = 45 index.html:15
9 * 6 = 54 index.html:15
9 * 7 = 63 index.html:15
9 * 8 = 72 index.html:15
9 * 9 = 81 index.html:15
9 * 10 = 90 index.html:15
table of 10 index.html:13
10 * 1 = 10 index.html:15
10 * 2 = 20 index.html:15
10 * 3 = 30 index.html:15
10 * 4 = 40 index.html:15
10 * 5 = 50 index.html:15
10 * 6 = 60 index.html:15
10 * 7 = 70 index.html:15
10 * 8 = 80 index.html:15
10 * 9 = 90 index.html:15
10 * 10 = 100 index.html:15
Console
Issues
10:35 PM
5/31/2021

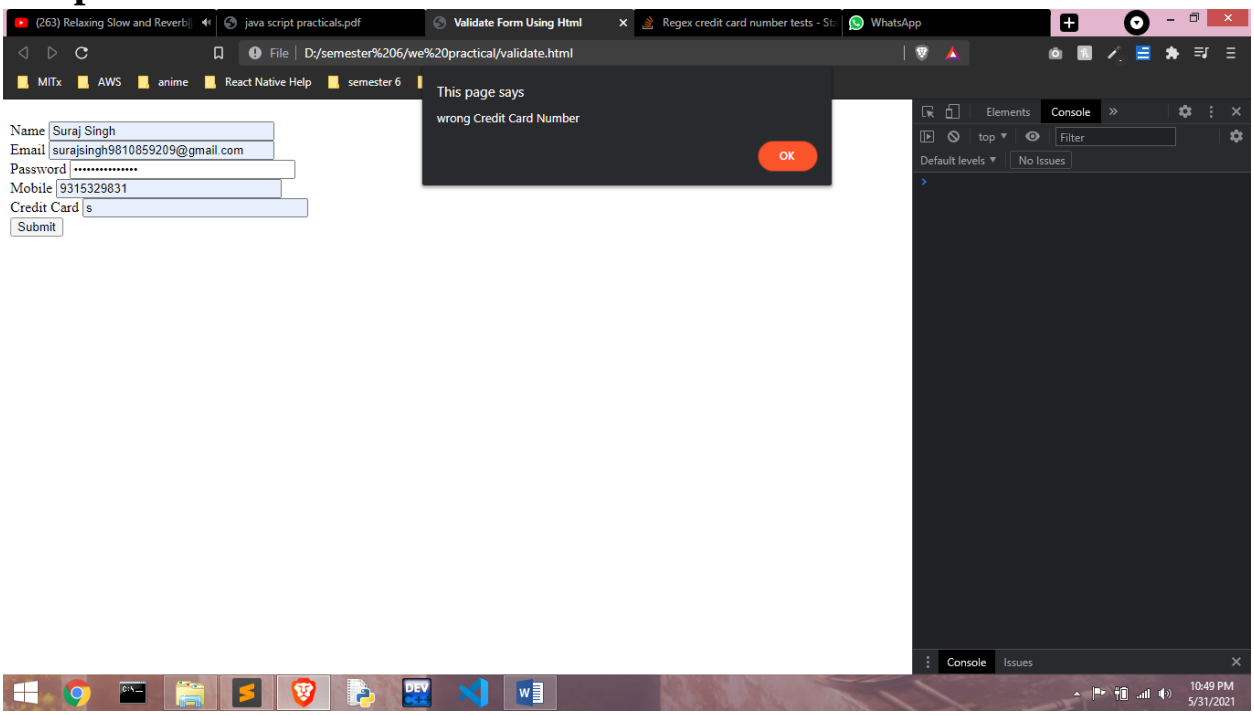
Practical 2: Validate the Registration, user login, user profile and payment by credit card pages using JavaScript.

CODE:

```
<!DOCTYPE html>
<html>
<head>
      <title>Validate Form Using Html</title>
</head>
<body>
<form onsubmit="return false" name="register">
<div style="display: flex; ">
 <p>
 <label>Name</label>
 <input type="text" size="30" name="name" placeholder="name">
 <br />
 <label>Email</label>
 <input type="email" size="30" name="email" placeholder="email">
 <br />
 <label>Password</label>
 <input type="password" size="30" name="password" placeholder="password">
 <br />
 <label>Mobile</label>
 <input type="tel" size="30" name="mobile" placeholder="mobile">
 <br />

 <label>Credit Card</label>
 <input type="text" size="30" name="credit" placeholder="Credit Card number">
 <br />
 <input type="submit" value="Submit" onclick="validateForm()">
 <br />
 </div>
</form>
</body>
<script type="text/javascript">
      const validateForm = () => {
            const {name , email , password , mobile , credit} =
document.register;
            if(name.value==="" || email.value==="" || password.value==="" ||
mobile.value===""){
                  alert(`Any Field can't be Empty`);
                  return false;
            }
            if (!/^[a-zA-Z0-9.!#$%&'*+/=?^_`{|}~-]+@[a-zA-Z0-9-]+(?:\.[a-zA-Z0-9-
]+)*$/.test(email.value))
             {
                  alert("enter valid email")
                  return false
            }
            if(!/^(\+\d{1,3}[- ]?)?\d{10}$/.test(mobile.value)){
```

```
                    alert("Invalid Mobile")
                    return false
                }
                if(!/^(?:4[0-9]{12}(?:[0-9]{3})?|[25][1-7][0-9]{14}|6(?:011|5[0-9][0-
9])[0-9]{12}|3[47][0-9]{13}|3(?:0[0-5]|[68][0-9])[0-
9]{11}|(?:2131|1800|35\d{3})\d{11})$/.test(credit.value) ){
                    alert("wrong Credit Card Number")
                    return false
                }
                console.log("all OK")
                alert("All Validate")

        }
</script>
</html>
```

Output:



Practical 3: Develop and demonstrate a XHTML file that includes JavaScript that uses functions for the following problems:

a) Parameter: A string
   Output: The position in the string of the left-most vowel.

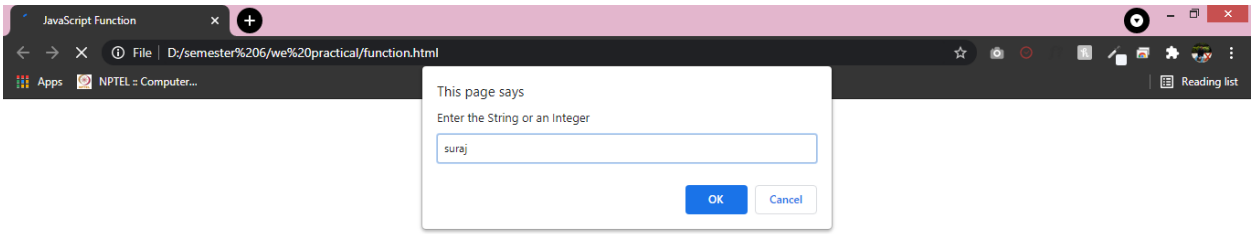
b) Parameter: A number

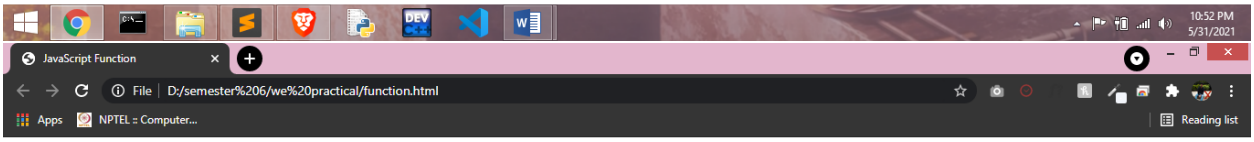
   Output: The number with its digits in the reverse order

CODE:

```
<!DOCTYPE html>
<html>
<head>
	<title>JavaScript Function</title>
</head>
<body>
	<h1 id="foo">JavaScript Fuctions</h1>
</body>
<script type="text/javascript">
element = document.getElementById("foo")

const Takeinput = () => {
    i = prompt("Enter the String or an Integer")
    type = isNaN(parseInt(i))  ? "string" : "int"

	if(type === "string"){
		if(i.search(/[aeiou]/i) === -1){
			element.innerHTML = "Not Found"
			return
		}
		 element.innerHTML = "The position in the string of the left-most
vowel is: " + (i.search(/[aeiou]/i) + 1)
	}else if(type === "int") {
		  element.innerHTML = "The number with its digits in the reverse
order is: " + i.split("").reverse().join("")

	}
}

Takeinput()


</script>
</html>
```

Output:





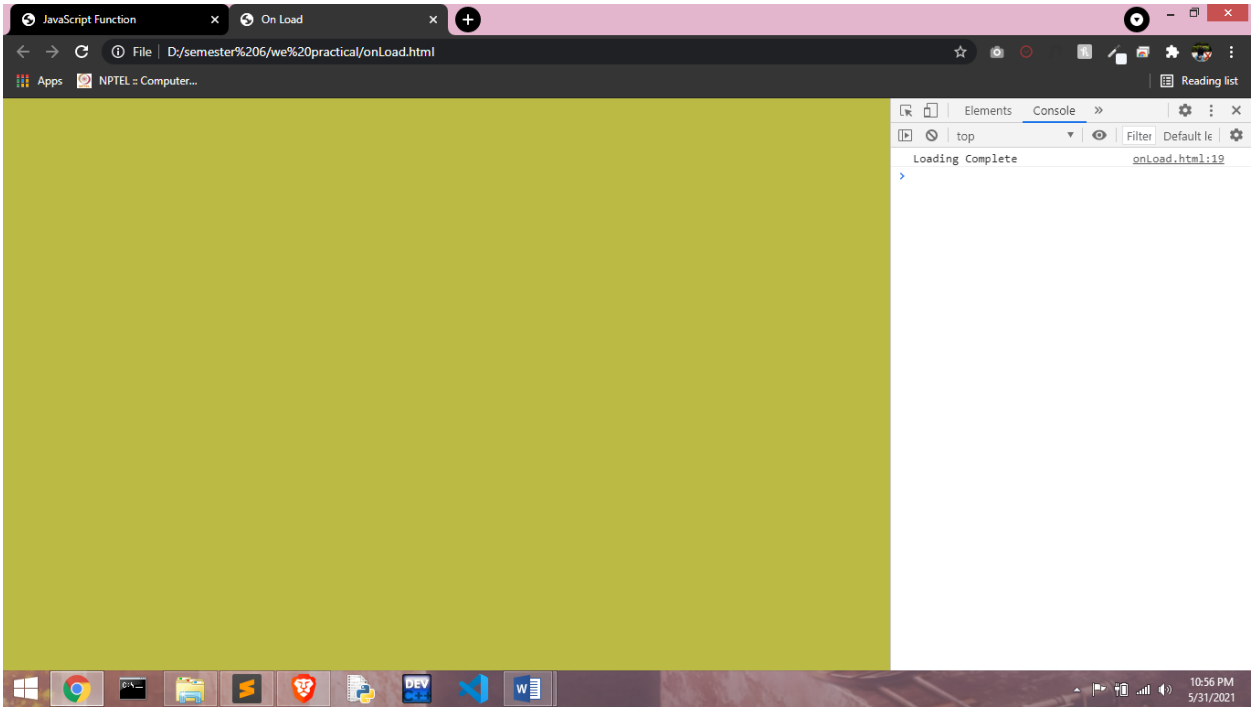

```
The position in the string of the left-most vowel is: 2
```

Practical 4: Using javascript demonstrate fade from one color to another on load.

CODE :

```
<!DOCTYPE html>
<html>
<head>
       <title>On Load</title>
</head>
 <style>
      body {
        transition: background-color 2s;
      }
    </style>
<body onload="onloading()">

</body>
<script type="text/javascript">
var colors = [ "yellow", "blue"];
var currentIndex = 0;

const onloading = () => {
       console.log("Loading Complete")

setInterval(function () {
    document.body.style.cssText = "background-color: " + colors[currentIndex];
    currentIndex++;
    if (currentIndex == undefined || currentIndex >= colors.length) {
        currentIndex = 0;
    }
}, 1000);
}

</script>

</html>
```

Output:


JavaScript Function
On Load
File | D:/semester%206/we%20practical/onLoad.html
Apps
NPTEL :: Computer...
Reading list
Elements
Console
top
Filter
Default le
Loading Complete
onLoad.html:19
10:56 PM
5/31/2021

Practical 5: Develop and demonstrate a XHTML file that includes Javascript script for the following problems:

a) Input: A number n obtained using prompt.
   Output: The first n Fibonacci numbers.

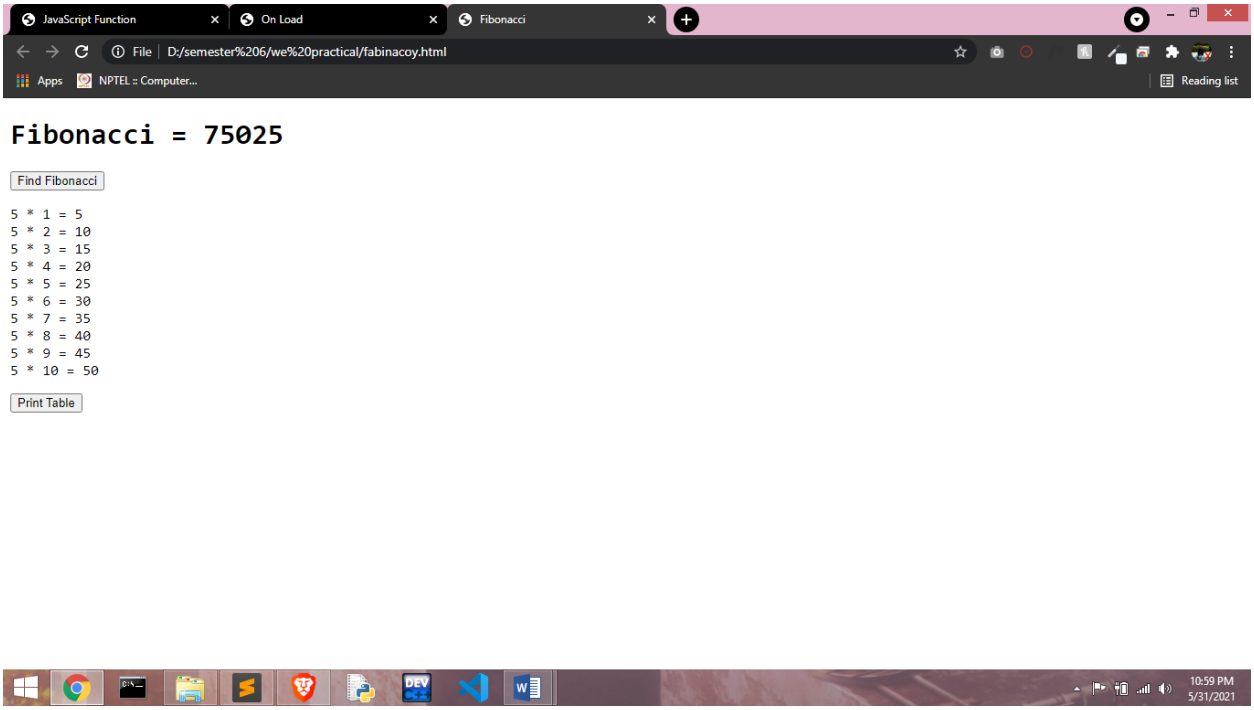
b) Input: A number n obtained using prompt.
   Output: A table of numbers from 1 to n and their squares using alert.

CODE :

```
<!DOCTYPE html>
<html>
<head>
    <title>Fibonacci</title>
</head>
<body>
    <h1 id="foo"></h1>
    <button onclick="Fibonacci()">Find Fibonacci</button>
        <p id="pPrint"></p>

    <button onclick="printTable()">Print Table</button>
</body>
<script type="text/javascript">
    function Fibonacci(){

        num = prompt("Enter the Number")
        num = parseInt(num)
        var num1=0;
        var num2=1;
        var sum;
        var i=0;
        for (i = 1; i < num; i++)
        {
            sum=num1+num2;
            num1=num2;
            num2=sum;
        }
        alert(sum)
        document.getElementById("foo").innerHTML = `Fibonacci = ${sum}`
    }

    function printTable(){
                var num;
                num = prompt("Enter the Number")
        num = parseInt(num)
                for(var i=1; i<=10; i++){
                    var pTag= document.getElementById('pPrint');
                    pTag.innerHTML += `${num} * ${i} =  ${(num*i)}` + "<br/>"
                }
```

```
                alert(num*num)
            }
</script>
</html>
```

Output:



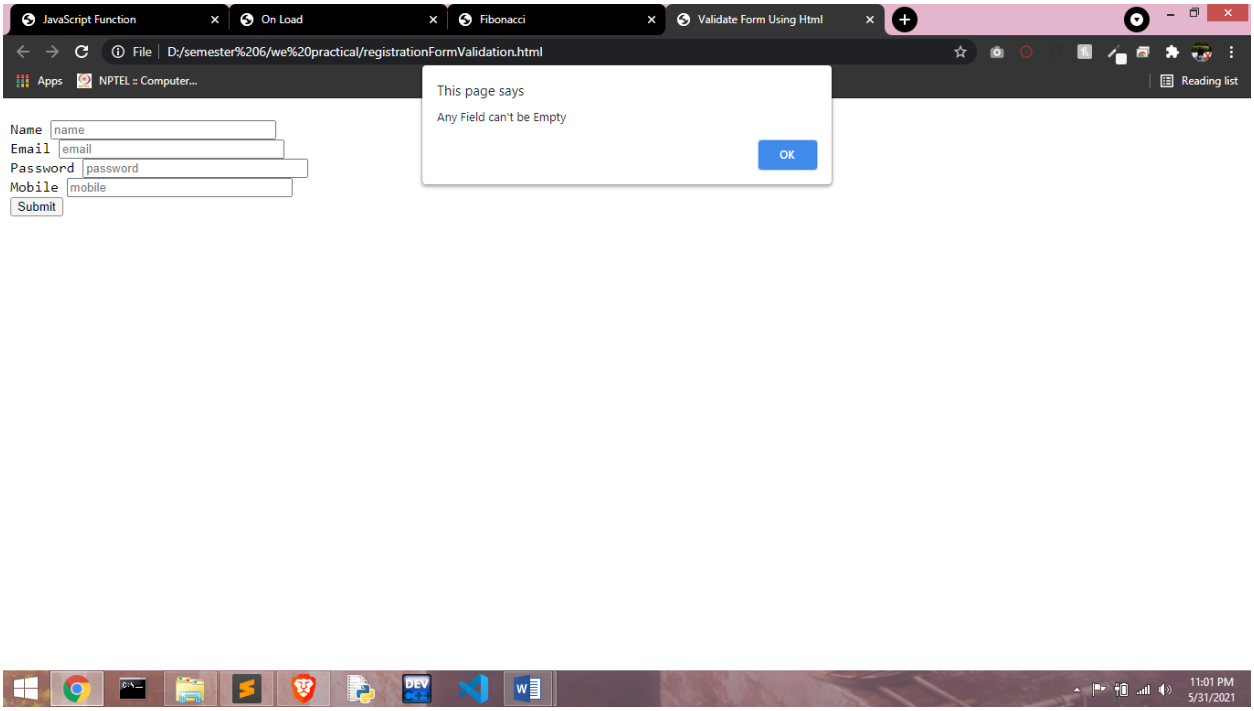
Practical 6: Design a registration form and validate its field by using javascript

CODE :

```
<!DOCTYPE html>
<html>
<head>
	<title>Validate Form Using Html</title>
</head>
<body>
<form onsubmit="return false" name="register">
<div style="display: flex; ">
 <p>
 <label>Name</label>
 <input type="text" size="30" name="name" placeholder="name">
 <br />
 <label>Email</label>
 <input type="email" size="30" name="email" placeholder="email">
 <br />
 <label>Password</label>
 <input type="password" size="30" name="password" placeholder="password">
 <br />
 <label>Mobile</label>
 <input type="tel" size="30" name="mobile" placeholder="mobile">
 <br />
 <input type="submit" value="Submit" onclick="validateForm()">
 <br />
 </div>
</form>
</body>
<script type="text/javascript">
	const validateForm = () => {
		const {name , email , password , mobile} = document.register;
		if(name.value==="" || email.value==="" || password.value==="" ||
mobile.value===""){
			alert(`Any Field can't be Empty`);
			return false;
		}
		if (!/^[a-zA-Z0-9.!#$%&'*+/=?^_`{|}~-]+@[a-zA-Z0-9-]+(?:\.[a-zA-Z0-9-
]+)*$/.test(email.value))
		 {
			alert("enter valid email")
			return false
		}
		if(!/^(\+\d{1,3}[- ]?)?\d{10}$/.test(mobile.value)){
			alert("Invalid Mobile")
			return false
		}
		console.log("all OK")
		alert("All Validate")

	 }
```

```
</script>
</html>
```

Output:



Practical 7: To design the scientific calculator and make event for each button using javascript.

CODE :

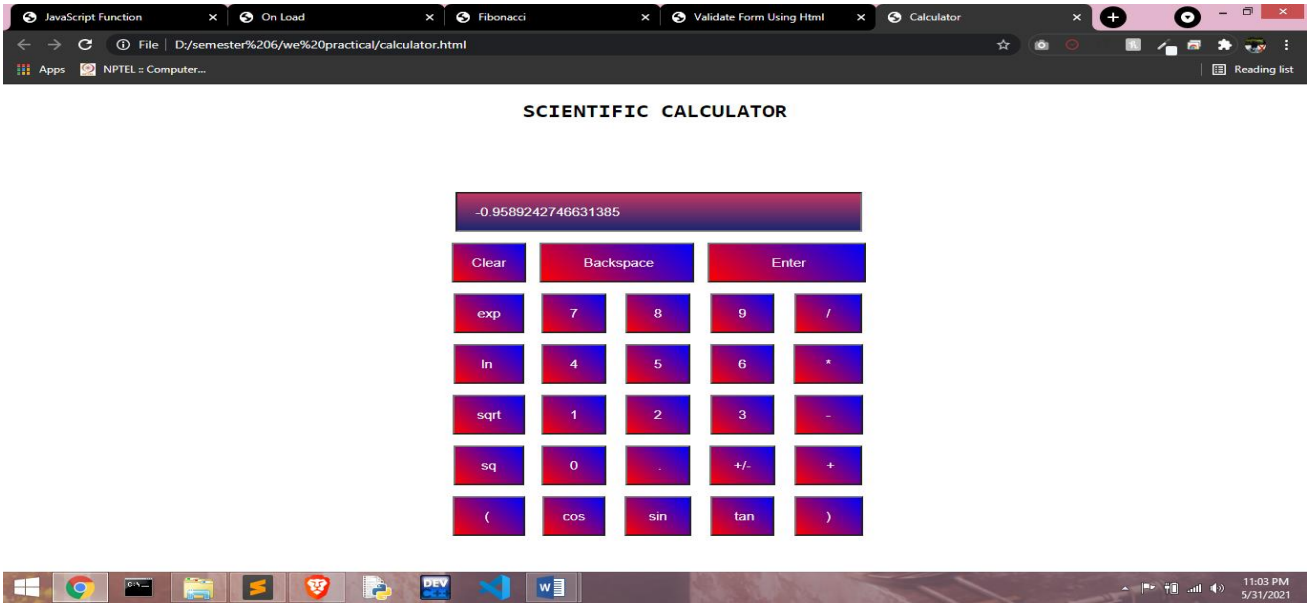
```
<!DOCTYPE html>
<html>
<head>
	<title>Calculator</title>
</head>
<style type="text/css">
	form{
	width:440px;
	padding:25px;
	margin:auto;
	}

	input{
	background:linear-gradient(45deg, red, blue);
	color:#fff;
	font-size:15px;
	padding-top:15px;
	padding-bottom:15px;
	padding-left:19px;
	padding-right:19px;
	margin:6px;
	}

	h2{
	text-align:center;
	}

	.sc{background: #C33764;  /* fallback for old browsers */
background: -webkit-linear-gradient(to top, #1D2671, #C33764);  /* Chrome 10-25,
Safari 5.1-6 */
background: linear-gradient(to top, #1D2671, #C33764); /* W3C, IE 10+/ Edge,
Firefox 16+, Chrome 26+, Opera 12+, Safari 7+ */

	color:#fff;
	}
</style>
<body>
<h2>SCIENTIFIC CALCULATOR</h2>
<br />
<br />
<form name="sci-calc">

<table cellspacing="0" cellpadding="1">
<TR>
<TD COLSPAN="5" ALIGN="center"><input NAME="display" class="sc" VALUE="0" SIZE="44"
MAXLENGTH="25"></TD>
</TR>
<TR>
```

```
<td align="center"><input type="button" value="Clear"
ONCLICK="this.form.display.value = 0 "></TD>
<td align="center" colspan="2"><input type="button" value="      Backspace     "
ONCLICK="deleteChar(this.form.display)"></TD>
<td align="center" colspan="2"><input type="button" value="           Enter
" NAME="Enter" ONCLICK="if (checkNum(this.form.display.value)) { compute(this.form)
}"></TD>
</TR>
<TR>
<td align="center"><input type="button" value=" exp " ONCLICK="if
(checkNum(this.form.display.value)) { exp(this.form) }"></TD>
<td align="center"><input type="button" value="  7  "
ONCLICK="addChar(this.form.display, '7')"></TD>
<td align="center"><input type="button" value="  8  "
ONCLICK="addChar(this.form.display, '8')"></TD>
<td align="center"><input type="button" value="  9  "
ONCLICK="addChar(this.form.display, '9')"></TD>
<td align="center"><input type="button" value="   /   "
ONCLICK="addChar(this.form.display, '/')"></TD>
</TR>
<TR>
<td align="center"><input type="button" value="  ln   " ONCLICK="if
(checkNum(this.form.display.value)) { ln(this.form) }"></TD>
<td align="center"><input type="button" value="  4  "
ONCLICK="addChar(this.form.display, '4')"></TD>
<td align="center"><input type="button" value="  5  "
ONCLICK="addChar(this.form.display, '5')"></TD>
<td align="center"><input type="button" value="  6  "
ONCLICK="addChar(this.form.display, '6')"></TD>
<td align="center"><input type="button" value="   *   "
ONCLICK="addChar(this.form.display, '*')"></TD>
</TR>
<TR>
<td align="center"><input type="button" value=" sqrt " ONCLICK="if
(checkNum(this.form.display.value)) { sqrt(this.form) }"></TD>
<td align="center"><input type="button" value="  1  "
ONCLICK="addChar(this.form.display, '1')"></TD>
<td align="center"><input type="button" value="  2  "
ONCLICK="addChar(this.form.display, '2')"></TD>
<td align="center"><input type="button" value="  3  "
ONCLICK="addChar(this.form.display, '3')"></TD>
<td align="center"><input type="button" value="   -   "
ONCLICK="addChar(this.form.display, '-')"></TD>
</TR>
<TR>
<td align="center"><input type="button" value="  sq  " ONCLICK="if
(checkNum(this.form.display.value)) { square(this.form) }"></TD>
<td align="center"><input type="button" value="  0  "
ONCLICK="addChar(this.form.display, '0')"></TD>
<td align="center"><input type="button" value="   .  "
ONCLICK="addChar(this.form.display, '.')"></TD>
<td align="center"><input type="button" value=" +/- "
ONCLICK="changeSign(this.form.display)"></TD>
<td align="center"><input type="button" value="   +  "
ONCLICK="addChar(this.form.display, '+')"></TD>
```

```
</TR>
<TR>
<td align="center"><input type="button" value="   (    "
ONCLICK="addChar(this.form.display, '(')"></TD>
<td align="center"><input type="button" value="cos" ONCLICK="if
(checkNum(this.form.display.value)) { cos(this.form) }"></TD>
<td align="center"><input type="button" value=" sin " ONCLICK="if
(checkNum(this.form.display.value)) { sin(this.form) }"></TD>
<td align="center"><input type="button" value=" tan" ONCLICK="if
(checkNum(this.form.display.value)) { tan(this.form) }"></TD>
<td align="center"><input type="button" value="   )   "
ONCLICK="addChar(this.form.display, ')')"></TD>
</TR>

</table>
</form>

</body>
<script type="text/javascript">
	function addChar(input, character) {
	if(input.value == null || input.value == "0")
		input.value = character
	else
		input.value += character
}

function cos(form) {
	form.display.value = Math.cos(form.display.value);
}

function sin(form) {
	form.display.value = Math.sin(form.display.value);
}

function tan(form) {
	form.display.value = Math.tan(form.display.value);
}

function sqrt(form) {
	form.display.value = Math.sqrt(form.display.value);
}

function ln(form) {
	form.display.value = Math.log(form.display.value);
}

function exp(form) {
	form.display.value = Math.exp(form.display.value);
}

function deleteChar(input) {
	input.value = input.value.substring(0, input.value.length - 1)
}

function changeSign(input) {
```

```
	if(input.value.substring(0, 1) == "-")
		input.value = input.value.substring(1, input.value.length)
	else
		input.value = "-" + input.value
}

function compute(form) {
	form.display.value = eval(form.display.value)
}

function square(form) {
	form.display.value = eval(form.display.value) * eval(form.display.value)
}

function checkNum(str) {
	for (var i = 0; i < str.length; i++) {
		var ch = str.substring(i, i+1)
		if (ch < "0" || ch > "9") {
			if (ch != "/" && ch != "*" && ch != "+" && ch != "-" && ch != 
"."
				&& ch != "(" && ch!= ")") {
				alert("invalid entry!")
				return false
				}
			}
		}
		return true
}
</script>
</html>
```

Output:



Practical 8: WAP to create popup boxes in javascript.

CODE :

```
<!DOCTYPE html>
<html>
<head>
	<title>Popup</title>
</head>
<body>
	<h1>This is to Create to popup</h1>
</body>
<script type="text/javascript">
	function pop(){
		alert("this is Popup")

	}
	pop()
</script>
</html>
```

Output: