

Web Engineering Practical File

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Btech CSE 6th SEM

Practical 1: Using JavaScript demonstrate Nested loop.

CODE:

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>Nested Loop</title>
5  </head>
6  <body style="text-align: center;">
7      <h1>NESTED LOOP</h1>
8      <button onclick="nestedLoop()">Click me and see console</button>
9      <p id="pPrint" style="text-align: center;"></p>
10 </body>
11 <script type="text/javascript">
12     function nestedLoop(){
13         for (var i = 0; i <= 10; i++) {
14             console.log(`table of ${i}`)
15             var pTag= document.getElementById('pPrint');
16
17             pTag.innerHTML += `<h3 style="color: red">Table of ${i}</h3>` + "<br />"
18
19             for (var j = 1; j <= 10; j++) {
20                 console.log( `${i} * ${j} = ${i*j}` )
21                 pTag.innerHTML += `${i} * ${j} = ${i*j}` + "<br/>"
22             }
23         }
24     }
25 }
26 </script>
27 </html>
```

Output:

NESTED LOOP

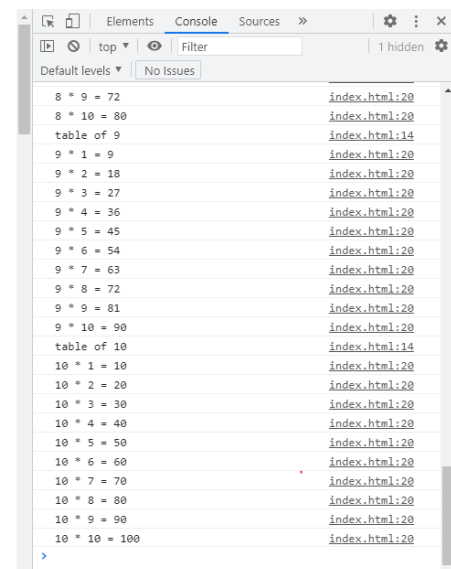
Click me and see console

Table of 0

```
0 * 1 = 0
0 * 2 = 0
0 * 3 = 0
0 * 4 = 0
0 * 5 = 0
0 * 6 = 0
0 * 7 = 0
0 * 8 = 0
0 * 9 = 0
0 * 10 = 0
```

Table of 1

```
1 * 1 = 1
1 * 2 = 2
1 * 3 = 3
1 * 4 = 4
1 * 5 = 5
1 * 6 = 6
1 * 7 = 7
1 * 8 = 8
1 * 9 = 9
```

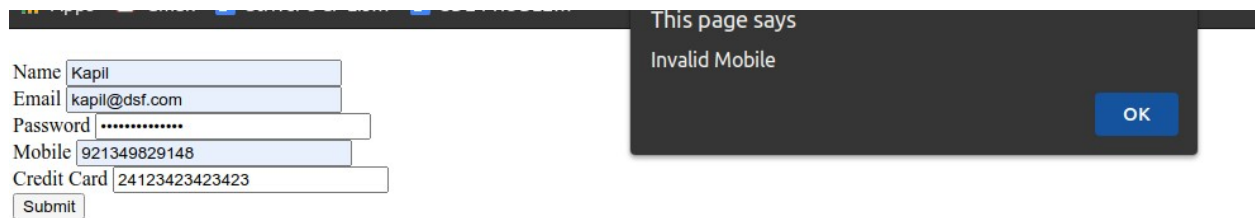


Practical 2: Validate the Registration, user login, user profile and payment by credit card pages using JavaScript.

CODE:

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4    <title>Validate Form Using Html</title>
5  </head>
6  <body>
7    <form onsubmit="return false" name="register">
8      <div style="display: flex; ">
9        <p>
10         <label>Name</label>
11         <input type="text" size="30" name="name" placeholder="name">
12         <br />
13         <label>Email</label>
14         <input type="email" size="30" name="email" placeholder="email">
15         <br />
16         <label>Password</label>
17         <input type="password" size="30" name="password" placeholder="password">
18         <br />
19         <label>Mobile</label>
20         <input type="tel" size="30" name="mobile" placeholder="mobile">
21         <br />
22         <label>Credit Card</label>
23         <input type="text" size="30" name="credit" placeholder="Credit Card number">
24         <br />
25         <input type="submit" value="Submit" onclick="validateForm()">
26         <br />
27       </div>
28     </form>
29 </body>
30 <script type="text/javascript">
31   const validateForm = () => {
32     const {name , email , password , mobile , credit} = document.register;
33     if(name.value=== "" || email.value=== "" || password.value=== "" || mobile.value=== ""){
34       alert(`Any Field can't be Empty`);
35       return false;
36     }
37     if (!/^[a-zA-Z0-9.!#$%&'*/+=?^_`{|}~.-]+@[a-zA-Z0-9-]+(?:\.[a-zA-Z0-9-]+)*$/i.test(email.value))
38     {
39       alert("enter valid email")
40       return false
41     }
42     if(!/^(\\+\\d{1,3}[ - ])?\\d{10}$/i.test(mobile.value)){
43       alert("Invalid Mobile")
44       return false
45     }
46     if(!/^(?:4[0-9]{12}(?:[0-9]{3})?[25][1-7][0-9]{14}|6(?:011|5[0-9][0-9])[0-9]{12}|3[47][0-9]{13}|3(
47       ?0[0-5]||[68][0-9])[0-9]{11}|(?:2131|1800|35\\d{3})\\d{11})$/i.test(credit.value) ){
48       alert("wrong Credit Card Number")
49       return false
50     }
51     console.Log("all OK")
52     alert("All Validate")
53   }
54 </script>
55 </html>
```

Output:



The screenshot shows a web form with the following fields: Name (Kapil), Email (kapil@dsf.com), Password (masked with dots), Mobile (921349829148), and Credit Card (24123423423423). A 'Submit' button is at the bottom left. A dark grey modal box on the right contains the text 'This page says' and 'Invalid Mobile', with an 'OK' button.

Name	Kapil
Email	kapil@dsf.com
Password	*****
Mobile	921349829148
Credit Card	24123423423423

Submit

This page says

Invalid Mobile

OK

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:

```

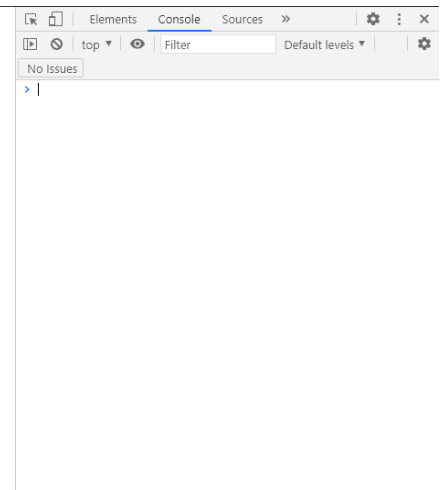
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title>JavaScript Fuctions</title>
5    </head>
6    <body>
7      <h1 id="foo">JavaScript Fuctions</h1>
8      <h1 id="forString" style="color: red"></h1>
9      <h1 id="forInt" style="color: pink"></h1>
10     <h1 id="forError" style="color: blue"></h1>
11   </body>
12   <script type="text/javascript">
13     const Takeinput = () => {
14       i = prompt("Enter the String or an Integer")
15       type = isNaN(parseInt(i)) ? "string" : "int"
16
17       if(type === "string"){
18         if(i.search(/[aeiou]/i) === -1){
19           document.getElementById("forError").innerHTML = "Not Found"
20           return
21         }
22         document.getElementById("forString").innerHTML = `First Object is at place: ${i.search(/[aeiou]/i) + 1}`
23       }else if(type === "int") {
24         document.getElementById("forInt").innerHTML = `reverse of the no is: ${i.split("").reverse().join("")}`
25       }
26     }
27   }
28   Takeinput()
29 </script>
30 </html>

```

Output:

JavaScript Fuctions

First Object is at place: 2

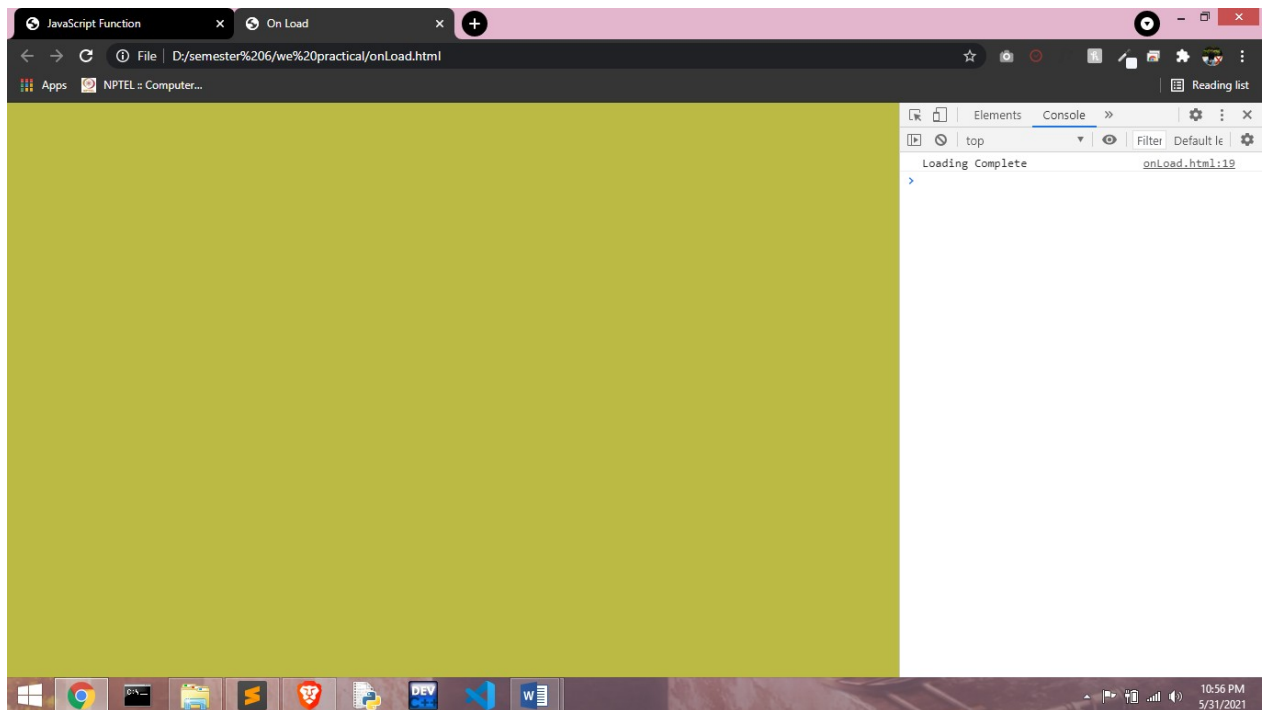


Practical 4: Using JavaScript demonstrate fade from one color to another on load.

CODE:

```
1  <!DOCTYPE html>
2  <html>
3      <head>
4          <title>On Load</title>
5      </head>
6      <style>
7          body {
8              transition: background-color 2s;
9          }
10     </style>
11     <body onload="onloading()">
12     </body>
13     <script type="text/javascript">
14         var colors = [ "yellow", "blue"];
15         var index = 0;
16
17         const onloading = () => {
18             console.log("Loading Complete")
19
20             setInterval(function () {
21                 document.body.style.cssText = "background-color: " + colors[index];
22                 index++;
23                 if (index == undefined || index >= colors.length) {
24                     index = 0;
25                 }
26             }, 5000);
27         }
28
29     </script>
30 </html>
```

Output:



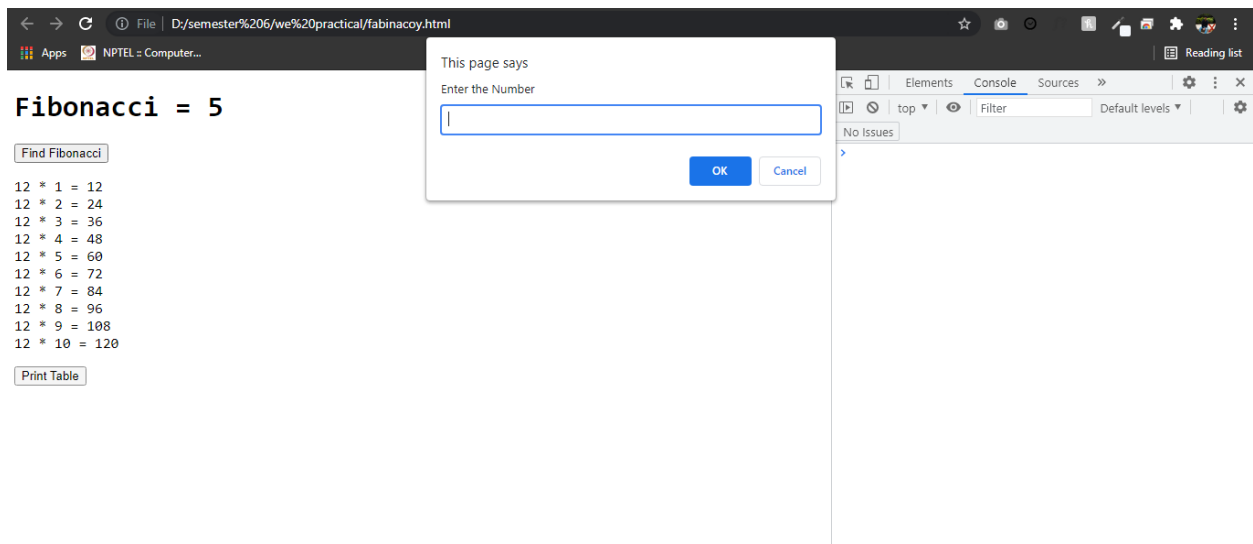
Practical 5: Develop and demonstrate a XHTML file that includes JavaScript script for the following problems:

- 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:

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4  <title>Fibonacci</title>
5  </head>
6  <body>
7  <h1 id="foo"></h1>
8  <button onclick="Fibonacci()">Find Fibonacci</button>
9  <p id="pPrint"></p>
10 <button onclick="printTable()">Print Table</button>
11 </body>
12 <script type="text/javascript">
13     function Fibonacci(){
14
15         num = prompt("Enter the Number")
16         num = parseInt(num)
17         var num1=0;
18         var num2=1;
19         var sum;
20         var i=0;
21         for (i = 1; i < num; i++)
22         {
23             sum=num1+num2;
24             num1=num2;
25             num2=sum;
26         }
27         alert(sum)
28         document.getElementById("foo").innerHTML = `Fibonacci = ${sum}`
29     }
30
31     function printTable(){
32         var num;
33         num = prompt("Enter the Number")
34         num = parseInt(num)
35
36         alert(num*num)
37         for(var i=1; i<=10; i++){
38             var pTag= document.getElementById('pPrint');
39             pTag.innerHTML += `${num} * ${i} = ${num*i}` + "<br/>"
40         }
41     }
42 </script>
43 </html>
```

Output:



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

CODE:

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

CODE:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>Calculator</title>
5 </head>
6 <style type="text/css">
7   form{
8     width:440px;
9     padding:25px;
10    margin:auto;
11  }
12  input{
13    background:linear-gradient(45deg, red, blue);
14    color:#fff;
15    font-size:15px;
16    padding-top:15px;
17    padding-bottom:15px;
18    padding-left:19px;
19    padding-right:19px;
20    margin:6px;
21  }
22  h2{
23    text-align:center;
24  }
25  .sc{background: #C33764; /* fallback for old browsers */
26    background: -webkit-linear-gradient(to top, #1D2671, #C33764); /* Chrome 10-25, Safari 5.1-6 */
27    background: linear-gradient(to top, #1D2671, #C33764); /* W3C, IE 10+/ Edge, Firefox 16+, Chrome 26+, Opera 12+, Safari 7+ */
28    color:#fff;
29  }
30 </style>
31 <body>
32 <h2>SCIENTIFIC CALCULATOR</h2>
33 <br />
34 <br />
35 <form name="sci-calc">
36   <table cellspacing="0" cellpadding="1">
37     <tr>
38       <td colspan="5" align="center"><input NAME="display" class="sc" VALUE="0" SIZE="44" MAXLENGTH="25"></td>
39     </tr>
40     <tr>
41       <td align="center"><input type="button" value="Clear" ONCLICK="this.form.display.value = 0 "></td>
42       <td align="center" colspan="2"><input type="button" value="Backspace" ONCLICK="deleteChar(this.form.display)"></td>
43       <td align="center" colspan="2"><input type="button" value="Enter" NAME="Enter" ONCLICK="if (checkNum(
44         this.form.display.value)) { compute(this.form) }"></td>
45     </tr>
```

```

45     <TR>
46         <td align="center"><input type="button" value=" exp " ONCLICK="if (checkNum(this.form.display.value)) { exp(this.form) }"></TD>
47         <td align="center"><input type="button" value=" 7 " ONCLICK="addChar(this.form.display, '7')"></TD>
48         <td align="center"><input type="button" value=" 8 " ONCLICK="addChar(this.form.display, '8')"></TD>
49         <td align="center"><input type="button" value=" 9 " ONCLICK="addChar(this.form.display, '9')"></TD>
50         <td align="center"><input type="button" value=" / " ONCLICK="addChar(this.form.display, '/')"></TD>
51     </TR>
52     <TR>
53         <td align="center"><input type="button" value=" ln " ONCLICK="if (checkNum(this.form.display.value)) { ln(this.form) }"></TD>
54         <td align="center"><input type="button" value=" 4 " ONCLICK="addChar(this.form.display, '4')"></TD>
55         <td align="center"><input type="button" value=" 5 " ONCLICK="addChar(this.form.display, '5')"></TD>
56         <td align="center"><input type="button" value=" 6 " ONCLICK="addChar(this.form.display, '6')"></TD>
57         <td align="center"><input type="button" value=" * " ONCLICK="addChar(this.form.display, '*')"></TD>
58     </TR>
59     <TR>
60         <td align="center"><input type="button" value=" sqrt " ONCLICK="if (checkNum(this.form.display.value)) { sqrt(this.form) }"></TD>
61         <td align="center"><input type="button" value=" 1 " ONCLICK="addChar(this.form.display, '1')"></TD>
62         <td align="center"><input type="button" value=" 2 " ONCLICK="addChar(this.form.display, '2')"></TD>
63         <td align="center"><input type="button" value=" 3 " ONCLICK="addChar(this.form.display, '3')"></TD>
64         <td align="center"><input type="button" value=" - " ONCLICK="addChar(this.form.display, '-')"></TD>
65     </TR>
66     <TR>
67         <td align="center"><input type="button" value=" sq " ONCLICK="if (checkNum(this.form.display.value)) { square(this.form) }"></TD>
68         <td align="center"><input type="button" value=" 0 " ONCLICK="addChar(this.form.display, '0')"></TD>
69         <td align="center"><input type="button" value=" . " ONCLICK="addChar(this.form.display, '.')"></TD>
70         <td align="center"><input type="button" value=" +/- " ONCLICK="changeSign(this.form.display)"></TD>
71         <td align="center"><input type="button" value=" + " ONCLICK="addChar(this.form.display, '+')"></TD>
72     </TR>
73     <TR>
74         <td align="center"><input type="button" value=" ( " ONCLICK="addChar(this.form.display, '(')"></TD>
75         <td align="center"><input type="button" value=" cos " ONCLICK="if (checkNum(this.form.display.value)) { cos(this.form) }"></TD>
76         <td align="center"><input type="button" value=" sin " ONCLICK="if (checkNum(this.form.display.value)) { sin(this.form) }"></TD>
77         <td align="center"><input type="button" value=" tan " ONCLICK="if (checkNum(this.form.display.value)) { tan(this.form) }"></TD>
78         <td align="center"><input type="button" value=" ) " ONCLICK="addChar(this.form.display, ')'"></TD>
79     </TR>
80 </table>
81 </form>
82 </body>
83

```

```

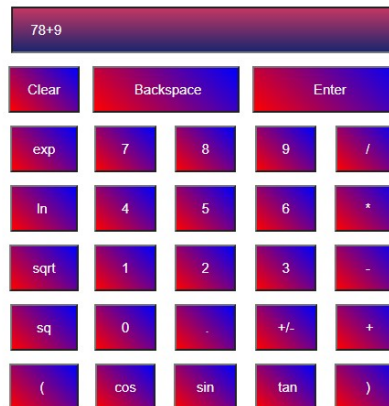
85 <script type="text/javascript">
86     function addChar(input, character) {
87         if(input.value == null || input.value == "0")
88             input.value = character
89         else
90             input.value += character
91     }
92
93     function cos(form) {
94         form.display.value = Math.cos(form.display.value);
95     }
96
97     function sin(form) {
98         form.display.value = Math.sin(form.display.value);
99     }
100
101     function tan(form) {
102         form.display.value = Math.tan(form.display.value);
103     }
104
105     function sqrt(form) {
106         form.display.value = Math.sqrt(form.display.value);
107     }
108
109     function ln(form) {
110         form.display.value = Math.log(form.display.value);
111     }
112
113     function exp(form) {
114         form.display.value = Math.exp(form.display.value);
115     }
116
117     function deleteChar(input) {
118         input.value = input.value.substring(0, input.value.length - 1)
119     }
120
121     function changeSign(input) {
122         if(input.value.substring(0, 1) == "-")
123             input.value = input.value.substring(1, input.value.length)
124         else
125             input.value = "-" + input.value
126     }
127
128     function compute(form) {
129         form.display.value = eval(form.display.value)
130     }
131
132     function square(form) {
133         form.display.value = eval(form.display.value) * eval(form.display.value)
134     }
135
136     function checkNum(str) {
137         for (var i = 0; i < str.length; i++) {
138             var ch = str.substring(i, i+1)
139             if (ch < "0" || ch > "9") {
140                 if (ch != "/" && ch != "a" && ch != "+" && ch != "-" && ch != "." &&
141                     ch != "(" && ch != ")") {
142                     alert("invalid entry!")
143                     return false
144                 }
145             }
146         }
147         return true
148     }
149 </script>
150 </html>

```

Output:



SCIENTIFIC CALCULATOR

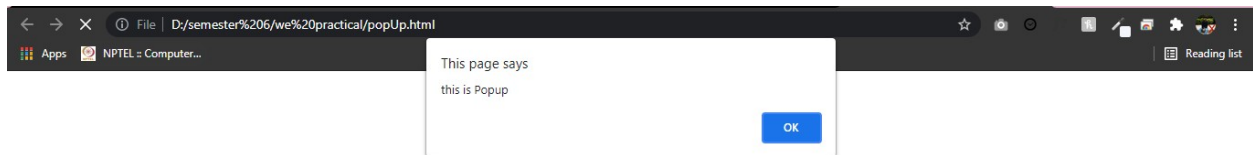


Practical 8: WAP to create popup boxes in JavaScript.

CODE:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Popup</title>
5 </head>
6 <body>
7   <h1>This is to Create to popup</h1>
8 </body>
9 <script type="text/javascript">
10   function pop(){
11     alert("this is Popup")
12   }
13   pop()
14 </script>
15 </html>
```

Output:



Practical 9: WAP to implement Java Servlet.

CODE:

FILENAME: demoservlet.js

```
1 import javax.servlet.http.*;
2 import javax.servlet.*;
3 import java.io.*;
4 public class DemoServlet extends HttpServlet {
5     public void doGet(HttpServletRequest req, HttpServletResponse res)
6     throws ServletException, IOException {
7         res.setContentType("text/html"); //setting the content type
8         PrintWriter pw = res.getWriter(); //get the stream to write the data
9
10        //writing html in the stream
11        pw.println("<html><body>");
12        pw.println("Welcome to servlet");
13        pw.println("</body></html>");
14
15        pw.close(); //closing the stream
16    }
17 }
```

FILENAME: web.xml

```
1 <web-app>
2     <servlet>
3         <servlet-name>suraj</servlet-name>
4         <servlet-class>DemoServlet</servlet-class>
5     </servlet>
6     <servlet-mapping>
7         <servlet-name>suraj</servlet-name>
8         <url-pattern>/welcome</url-pattern>
9     </servlet-mapping>
10 </web-app>
```

TOMCAR SERVER LOG


```
Tomcat
NOTE: Picked up JDK_JAVA_OPTIONS: --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.io=ALL-UNNAMED --add-opens=java.base/java.util=ALL-UNNAMED --add-opens=java.base/java.util.concurrent=ALL-UNNAMED --add-opens=java.rmi/sun.rmi.transport=ALL-UNNAMED
12-Jun-2021 01:08:04.668 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Server version name: Apache Tomcat/9.0.46
12-Jun-2021 01:08:04.689 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Server built: May 8 2021 17:35:52 UTC
12-Jun-2021 01:08:04.690 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Server version number: 9.0.46.0
12-Jun-2021 01:08:04.694 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log OS Name: Windows 8.1
12-Jun-2021 01:08:04.695 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log OS Version: 6.3
12-Jun-2021 01:08:04.700 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Architecture: amd64
12-Jun-2021 01:08:04.702 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Java Home: C:\Program Files\Java\jdk-15.0.1
12-Jun-2021 01:08:04.703 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log JVM Version: 15.0.1+9-18
12-Jun-2021 01:08:04.704 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log JVM Vendor: Oracle Corporation
12-Jun-2021 01:08:04.704 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log CATALINA_BASE: C:\Program Files\Apache Software Foundation\To
mcat 9.0
12-Jun-2021 01:08:04.706 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log CATALINA_HOME: C:\Program Files\Apache Software Foundation\To
mcat 9.0
12-Jun-2021 01:08:04.847 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: --add-opens=java.base/java.lang=ALL-UNNAMED
12-Jun-2021 01:08:04.849 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: --add-opens=java.base/java.io=ALL-UNNAMED
12-Jun-2021 01:08:04.850 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: --add-opens=java.base/java.util=ALL-UNNAMED
12-Jun-2021 01:08:04.852 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: --add-opens=java.base/java.util.concurrent=ALL
-UNNAMED
12-Jun-2021 01:08:04.853 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: --add-opens=java.rmi/sun.rmi.transport=ALL-UNN
AMED
12-Jun-2021 01:08:04.855 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: -Djava.util.logging.config.file=C:\Program Fil
es\Apache Software Foundation\Tomcat 9.0\conf\logging.properties
12-Jun-2021 01:08:04.862 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: -Djava.util.logging.manager=org.apache.juli.Cl
assLoaderLogManager
12-Jun-2021 01:08:04.869 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: -Djdk.tls.ephemeralDHKeySize=2048
12-Jun-2021 01:08:04.871 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: -Djava.protocol.handler.pkgs=org.apache.catali
```

```

12-Jun-2021 01:08:04.874 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: -Dcatalina.base=C:\Program Files\Apache Softwa
re Foundation\Tomcat 9.0
12-Jun-2021 01:08:04.875 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: -Dcatalina.home=C:\Program Files\Apache Softwa
re Foundation\Tomcat 9.0
12-Jun-2021 01:08:04.877 INFO [main] org.apache.catalina.startup.VersionLoggerLi
stener.log Command line argument: -Djava.io.tmpdir=C:\Program Files\Apache Softw
are Foundation\Tomcat 9.0\temp
12-Jun-2021 01:08:05.002 INFO [main] org.apache.catalina.core.AprLifecycleListen
er.lifecycleEvent Loaded Apache Tomcat Native library [1.2.28] using APR version
[1.7.0].
12-Jun-2021 01:08:05.004 INFO [main] org.apache.catalina.core.AprLifecycleListen
er.lifecycleEvent APR capabilities: IPv6 [true], sendfile [true], accept filters
[false], random [true].
12-Jun-2021 01:08:05.006 INFO [main] org.apache.catalina.core.AprLifecycleListen
er.lifecycleEvent APR/OpenSSL configuration: useAprConnector [false], useOpenSSL
[true]
12-Jun-2021 01:08:05.019 INFO [main] org.apache.catalina.core.AprLifecycleListen
er.initializeSSL OpenSSL successfully initialized [OpenSSL 1.1.1k 25 Mar 2021]
12-Jun-2021 01:08:06.465 INFO [main] org.apache.coyote.AbstractProtocol.init Ini
tializing ProtocolHandler ["http-nio-8080"]
12-Jun-2021 01:08:06.781 SEVERE [main] org.apache.catalina.util.LifecycleBase.ha
ndleSubClassException Failed to initialize component [Connector[HTTP/1.1-8080]]
    org.apache.catalina.LifecycleException: Protocol handler initialization
failed
        at org.apache.catalina.connector.Connector.initInternal(Connecto
r.java:1049)
        at org.apache.catalina.util.LifecycleBase.init(LifecycleBase.jav
a:136)
        at org.apache.catalina.core.StandardService.initInternal(Standar
dService.java:556)
        at org.apache.catalina.util.LifecycleBase.init(LifecycleBase.jav
a:136)
        at org.apache.catalina.core.StandardServer.initInternal(Standard
Server.java:1045)
        at org.apache.catalina.util.LifecycleBase.init(LifecycleBase.jav
a:136)
        at org.apache.catalina.startup.Catalina.load(Catalina.java:724)
        at org.apache.catalina.startup.Catalina.load(Catalina.java:746)
        at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke
(Native Method)
        at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke
(NativeMethodAccessorImpl.java:64)
        at java.base/jdk.internal.reflect.DelegatingMethodAccessorImpl.i
nvoke(DelegatingMethodAccessorImpl.java:43)
        at java.base/java.lang.reflect.Method.invoke(Method.java:564)
        at org.apache.catalina.startup.Bootstrap.load(Bootstrap.java:302
)
        at org.apache.catalina.startup.Bootstrap.main(Bootstrap.java:472)

```

```

    Caused by: java.net.BindException: Address already in use: bind
        at java.base/sun.nio.ch.Net.bind0(Native Method)
        at java.base/sun.nio.ch.Net.bind(Net.java:550)
        at java.base/sun.nio.ch.ServerSocketChannelImpl.bind(ServerSocketChannelImpl.java:249)
        at org.apache.tomcat.util.net.NioEndpoint.initServerSocket(NioEndpoint.java:300)
        at org.apache.tomcat.util.net.NioEndpoint.bind(NioEndpoint.java:253)
        at org.apache.tomcat.util.net.AbstractEndpoint.bindWithCleanup(AbstractEndpoint.java:1204)
        at org.apache.tomcat.util.net.AbstractEndpoint.init(AbstractEndpoint.java:1217)
        at org.apache.coyote.AbstractProtocol.init(AbstractProtocol.java:603)
        at org.apache.coyote.http11.AbstractHttp11Protocol.init(AbstractHttp11Protocol.java:80)
        at org.apache.catalina.connector.Connector.initInternal(Connector.java:1046)
        ... 13 more
12-Jun-2021 01:08:06.790 INFO [main] org.apache.catalina.startup.Catalina.load Server initialization in [3172] milliseconds
12-Jun-2021 01:08:06.941 INFO [main] org.apache.catalina.core.StandardService.startInternal Starting service [Catalina]
12-Jun-2021 01:08:06.946 INFO [main] org.apache.catalina.core.StandardEngine.startInternal Starting Servlet engine: [Apache Tomcat/9.0.46]
12-Jun-2021 01:08:06.988 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\docs]
12-Jun-2021 01:08:07.878 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\docs] has finished in [890] ms
12-Jun-2021 01:08:07.882 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\examples]
12-Jun-2021 01:08:09.712 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\examples] has finished in [1,830] ms
12-Jun-2021 01:08:09.715 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\host-manager]
12-Jun-2021 01:08:09.823 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\host-manager] has finished in [108] ms
12-Jun-2021 01:08:09.825 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\manager]
12-Jun-2021 01:08:09.947 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Sof

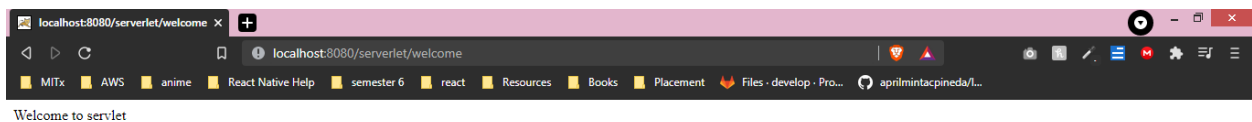
```

```

12-Jun-2021 01:08:09.949 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\rd]
12-Jun-2021 01:08:10.050 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\rd] has finished in [101] ms
12-Jun-2021 01:08:10.052 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\ROOT]
12-Jun-2021 01:08:10.112 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\ROOT] has finished in [59] ms
12-Jun-2021 01:08:10.113 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\serverlet]
12-Jun-2021 01:08:10.183 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\serverlet] has finished in [65] ms
12-Jun-2021 01:08:10.186 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\simpleValidation]
12-Jun-2021 01:08:10.297 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application directory [C:\Program Files\Apache Software Foundation\Tomcat 9.0\webapps\simpleValidation] has finished in [110] ms
12-Jun-2021 01:08:10.306 INFO [main] org.apache.catalina.startup.Catalina.start Server startup in [3515] milliseconds
12-Jun-2021 01:15:31.860 INFO [Catalina-utility-1] org.apache.catalina.startup.HostConfig.reload Reloading context [/serverlet]
12-Jun-2021 01:15:31.917 INFO [Catalina-utility-1] org.apache.catalina.core.StandardContext.reload Reloading Context with name [/serverlet] has started
12-Jun-2021 01:15:32.371 INFO [Catalina-utility-1] org.apache.catalina.core.StandardContext.reload Reloading Context with name [/serverlet] is completed

```

Output:



Practical 10: WAP to add image with height and width attributes in HTML page

CODE:

```
1  <!DOCTYPE html>
2  <html>
3  <body>
4
5  <h2>Image Size</h2>
6
7  <p>Here we specify the width and height of an image with the width and height attributes:</p>
8
9  
10
11 </body>
12 </html>
13
```

Output:

Image Size

Here we specify the width and height of an image with the width and height attributes:



Practical 11: WAP to add floating images in HTML Page.

CODE:

```

1  <!DOCTYPE html>
2  <html>
3  <body>
4    <h2>Floating Images</h2>
5    <p><strong>Float the image to the right:</strong></p>
6    <p>
7      
8      A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating
      image.
9    </p>
10   <p><strong>Float the image to the left:</strong></p>
11   <p>
12     
13     A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating
      image.
14   </p>
15 </body>
16 </html>

```

Output:

Floating Images

Float the image to the right:

A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating image.



Float the image to the left:



A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating image.

Practical 12: WAP to get Geolocation and watch position.

CODE:

```

1  <!DOCTYPE html>
2  <html>
3      <body>
4          <p>Click the button to get your coordinates.</p>
5          <button onclick="getLocation()">Try It</button>
6          <p id="demo"></p>
7          <script>
8              var x = document.getElementById("demo");
9
10             function getLocation() {
11                 if (navigator.geolocation) {
12                     navigator.geolocation.getCurrentPosition(showPosition);
13                 } else {
14                     x.innerHTML = "Geolocation is not supported by this browser.";
15                 }
16             }
17
18             function showPosition(position) {
19                 x.innerHTML = "Latitude: " + position.coords.latitude +
20                 "<br>Longitude: " + position.coords.longitude;
21             }
22         </script>
23     </body>
24 </html>

```

Output:



Practical 13: WAP to implement a JSP to generate dynamic content.

CODE:

```

1  <html>
2  <head>
3    <title>Echoing HTML Request Parameters</title>
4  </head>
5  <body>
6    <h3>Choose an author:</h3>
7    <form method="get">
8      <input type="checkbox" name="author" value="Tan Ah Teck">Tan
9      <input type="checkbox" name="author" value="Mohd Ali">Ali
10     <input type="checkbox" name="author" value="Kumar">Kumar
11     <input type="submit" value="Query">
12   </form>
13
14   <%
15     String[] authors = request.getParameterValues("author");
16     if (authors != null) {
17   %>
18     <h3>You have selected author(s):</h3>
19     <ul>
20   <%
21       for (int i = 0; i < authors.length; ++i) {
22   %>
23         <li><%= authors[i] %></li>
24   <%
25       }
26   %>
27     </ul>
28     <a href="<%= request.getRequestURI() %>">BACK</a>
29   <%
30     }
31   %>
32 </body>
33 </html>

```

Output:

