

DEV BHOOMI INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering

Year: 3rd

Semester: 5th



Algorithm lab- PCS-553

LAB MANUAL

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HOD(CSE)

DEV BHOOMI INSTITUTE OF TECHNOLOGY


Department of Computer Science and Engineering

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LAB MANUAL

| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 1 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective: Script showing use of variables in JavaScript

Program:

```
<HTML>
```

```
  <HEAD>
```

```
    <SCRIPT Language = JavaScript>
```

```
      var name = prompt("Enter your name", "Name");
```

```
    </SCRIPT>
```

```
  </HEAD>
```

```
  <BODY>
```

```
    <SCRIPT Language = "JavaScript">
```

```
      document.write("<H2> Hello " + name + "</H2>");
```

```
    </SCRIPT>
```


```
  </BODY>
```

```
</HTML>
```

Outcome: Students will understand the concept of variables in javascript.

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| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 2 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective: Script showing use of arrays in JavaScript.

In following script an array is used with hard coded values .Displaying the values of the array elements in the browser makes use of an array's join() method to print the array elements in a single line.

<HTML>

*<HEAD><TITLE>Viewing the array elements of a JavaScript
Array</TITLE></HEAD>*

<BODY>

<SCRIPT language = "JavaScript">

<!-- Begin Hiding JavaScript

friends = new Array(5);

friends[0] = "Ananth";

friends[1] = "Cedric";

friends[2] = "Ketan";

friends[3] = "Rohan";

friends[4] = "Leela";

*document.write(friends[0] + "
");*

*document.write(friends[1] + "
");*

*document.write(friends[2] + "
");*

*document.write(friends[3] + "
");*


*document.write(friends[4] + "
");*

```
        join_crit= friends.join();  
        document.write(join_crit);  
    // End hiding JavaScript -->  
    </SCRIPT>  
    </BODY>  
</HTML>
```

Outcome: Students will understand the concept of arrays in javascript.

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LAB MANUAL

| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 3 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective: Script showing user defined functions

<HTML>

<HEAD>

<TITLE>Creating and Using User Defined Functions</TITLE>

<SCRIPT Language="JavaScript">

```
var name = "";
```

```
function hello() {
```

```
    name = prompt('Enter Your Name:', 'Name');
```

```
    alert('Greetings ' + name + ', Welcome to my page!');
```

```
}
```

```
function goodbye() {
```

```
    alert('Goodbye ' + name + ', Sorry to see you go!');
```

```
}
```

</SCRIPT>

</HEAD>

<BODY onLoad="hello();" onUnload="goodbye();">


</BODY>

</HTML>

Outcome: Students will understand the concepts of user defined system.

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| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 4 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective: Script showing how JavaScript places code in the browser window

`<HTML>`

`<HEAD><TITLE>Outputting Text </TITLE></HEAD>`

`<BODY><CENTER>

`

`Silicon Chip Technologies.
`

`<SCRIPT Language = "Javascript">`

`document.write("

");`

`document.write('');`

`document.write("Silicon Chip Technologies.
");`

`</SCRIPT>`


`</CENTER></BODY>`

`</HTML>`

Outcome: Students will understand the concepts of javascript places code in the browser windows.

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| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 5 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective: Script showing use of alert dialog box

`<HTML>`

`<HEAD><TITLE>Example</TITLE></HEAD>`

`<BODY><SCRIPT Language="Javascript">`

`alert("Welcome To My Web Site!");`

`document.write('');`


`</SCRIPT></BODY>`

`</HTML>`

Outcome: Students will understand the concepts of alert dialog box.

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LAB MANUAL

| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 6 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective: Script showing use of prompt dialog box

<HTML>

<HEAD><TITLE>Example</TITLE></HEAD>

<BODY><SCRIPT Language="Javascript">

alert("Welcome To My Web Site!");

document.write('');


</SCRIPT></BODY>

</HTML>

Outcome: Students will understand the concepts of prompt dialog box.

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| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 7 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective:Script showing use of Confirm dialog box

<HTML>

<HEAD>

<TITLE> Confirm Method </TITLE>

<SCRIPT LANGUAGE="JavaScript">

var question = "What is 10+10 ?";

var answer = 20;

var correct = '';

var incorrect = '';

var Response = prompt(question, "0");

for(count = 1; count < 3; count++) {

if(Response != answer) {

if(confirm("Wrong, Press OK For Another Chance")) {

Response = prompt(question, "0");

}

else {

alert("Better Luck Next Time");

count = 3;

}


}

```
        else {  
            alert("Great!! Your Are Right");  
            count = 3;  
        }  
    }  
    var output = (Response == answer) ? correct : incorrect;  
    document.write("<BR>");  
    document.write(output);  
</SCRIPT>  
</HEAD>  
<BODY></BODY>  
</HTML>
```

Outcome: Students will understand the concept of confirmation dialogue box.

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| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 8 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective: Program showing JavaScript front-end validation

<HTML>

<HEAD>

<TITLE>Creating and Using Validation function</TITLE>

<SCRIPT Language="JavaScript">

```
functionformValidator(){
```

```
    // Make quick references to our fields
```

```
    varfirstname = document.getElementById('firstname');
```

```
    varaddr = document.getElementById('addr');
```

```
    var zip = document.getElementById('zip');
```

```
    var state = document.getElementById('state');
```

```
    var username = document.getElementById('username');
```

```
    var email = document.getElementById('email');
```

```
    // Check each input in the order that it appears in the form!
```

```
    if(isAlphabet(firstname, "Please enter only letters for your name")){
```

```
        if(isAlphanumeric(addr, "Numbers and Letters Only for Address")){
```

```
            if(isNumeric(zip, "Please enter a valid zip code")){
```

```
                if(madeSelection(state, "Please Choose a State")){
```

```

        if(lengthRestriction(username, 6, 8)){
            if(emailValidator(email, "Please enter a valid
email address")){
                return true;
            }
        }
    }
}

```

```

return false;

```

```

}

```

```

functionnotEmpty(elem, helperMsg){

```

```

    if(elem.value.length == 0){

```

```

        alert(helperMsg);

```

```

        elem.focus(); // set the focus to this input

```

```

        return false;

```

```

    }

```

```

    return true;

```

```

}

```

```

functionisNumeric(elem, helperMsg){

```

```

    varnumericExpression = /^[0-9]+$/;

```

```

    if(elem.value.match(numericExpression)){
        return true;
    }else{
        alert(helperMsg);
        elem.focus();
        return false;
    }
}

```

```

functionisAlphabet(elem, helperMsg){
    varalphaExp = /^[a-zA-Z]+$/;
    if(elem.value.match(alphaExp)){
        return true;
    }else{
        alert(helperMsg);
        elem.focus();
        return false;
    }
}

```

```

functionisAlphanumeric(elem, helperMsg){
    varalphaExp = /^[0-9a-zA-Z]+$/;
    if(elem.value.match(alphaExp)){
        return true;
    }else{
        alert(helperMsg);
        elem.focus();
    }
}

```

```

        return false;
    }
}

function lengthRestriction(elem, min, max){
    var uInput = elem.value;
    if(uInput.length >= min && uInput.length <= max){
        return true;
    }else{
        alert("Please enter between " + min + " and " + max + " characters");
        elem.focus();
        return false;
    }
}

```

```

function madeSelection(elem, helperMsg){
    if(elem.value == "Please Choose"){
        alert(helperMsg);
        elem.focus();
        return false;
    }else{
        return true;
    }
}

```

```

function emailValidator(elem, helperMsg){
    var emailExp = /^[w|-|\.|+]+\@[a-zA-Z0-9\.-]+\.[a-zA-z0-9]{2,4}$/;

```


```

        if(elem.value.match(emailExp)){
            return true;
        }else{
            alert(helperMsg);
            elem.focus();
            return false;
        }
    }
}
</script>
</head>
<form onsubmit='return formValidator()' >
First Name: <input type='text' id='firstname' /><br />
Address: <input type='text' id='addr' /><br />
Zip Code: <input type='text' id='zip' /><br />
State: <select id='state'>
    <option>Please Choose</option>
    <option>AL</option>
    <option>CA</option>
    <option>TX</option>
    <option>WI</option>
</select><br />
Username(6-8 characters): <input type='text' id='username' /><br />
Email: <input type='text' id='email' /><br />
<input type='submit' value='Check Form' />
</form>
</html>

```


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| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 9 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Outcome: Students will understand the concepts java script front-end validation.

Objective: Program implementing the concept of cookies in JSP.

newhtml.html

```
<html>
<head>
<title></title>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
</head>
<body>
<form action="MainCookie.jsp" method="GET">
    FIRST NAME:<input type="text" name="first_name"></br>
    LAST NAME:<input type="text" name="last_name"></br>
<input type="submit" value="submit"/>
</form>
</body>
</html>
```

MainCookie.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<%@page language="java" import="java.util.*" %>
<!DOCTYPE html>
<html>
```

```

<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
</head>
<body>
<h1> Setting Cookie values</h1>
    First Name:<%=request.getParameter("first_name")%></br>
    Last Name:<%=request.getParameter("last_name")%></br>
<%
    Cookie firstName=new Cookie("first_name",request.getParameter("first_name"));
    Cookie lastName=new Cookie("last_name",request.getParameter("last_name"));
    firstName.setMaxAge(60*60*24);
    lastName.setMaxAge(60*60*24);
    response.addCookie(firstName);
    response.addCookie(lastName);
%>
<a href="ReadCookies.jsp"> Next page to view the cookies value</a>
</body>
</html>

```

ReadCookies.jsp

```

<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>JSP Page</title>
</head>
<body>

```

```

<h1> Reading Cookies</h1>

<%
    Cookie cookie=null;
    Cookie[] cookies=null;
    cookies=request.getCookies();
    if(cookies!=null)
        {
    out.println("<h2> Found cookies name and value</h2>");
    for(int i=0;i<cookies.length;i++)
        {
    cookie=cookies[i];
    out.print("Name:"+cookie.getName()+",");
    out.print("Value:"+cookie.getValue()+"<br>");
        }}
    else
        {
    out.println("No cookies found");
        }
    %>

</body>


</html>

```

Outcome: Students will understand the concepts of cookies in JSP.

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| | | | |
|---|--|--------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 10 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

Objective:Program implementing the concept of session in JSP

Index.html

```
<html>
<head>
<title>Using session in JSP</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<form action="Newjsp.jsp" method="POST">
    Enter your name<input type="text" name="name"/>
    Enter your password<input type="password" name="pwd"/>
<input type="submit" value="submit"/>
</form>
</body>
</html>
```

Newjsp.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
```

```

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<title>JSP Page</title>

</head>

<body>

<%

    String name=request.getParameter("name");

    String password=request.getParameter("pwd");

    if(name.equals("UB") &&password.equals("DBIT"))

        {

    session.setAttribute("username",name);

    response.sendRedirect("Newjsp1.jsp");

        }

    else

        {

out.print("<b><center> Sorry dear you are not good enough to learn jsp</center></b>");

        }

    %>

</body>


</html>

```

Newjsp1.jsp

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| | | | |
|---|--|-------------------------|--------------------|
|  | Course Name: Advance java programming | Experiment No. 2 | |
| | Course Code : PCS-553 Faculty : Mr.UpendraBisht | Branch: CSE | Semester: V |

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
```

```
<title>JSP Page</title>
```

```
</head>
```

```
<body>
```

```
<center>
```

```
<b> Hello dear,"<%=session.getAttribute("username")%>", Welcome to the amazing world  
of JSP</b>
```

```
</center>
```

```
</body>
```

```
</html>
```

Outcome: Students will understand the concepts of session handling.