PRACTICAL-5

Aim: Develop applications using JavaScript

Practical-5.1: Make an application which check user name and password with java script. And user name and password are correct then navigate next page.

Program:

Pr5.1.html

```html
<!DOCTYPE html>
<html>
<head>
  <script>
    function validate() {
  var letter = /[a-zA-Z]/;
  var number = /[0-9]/;
  var uname = document.myform.name.value;
  var pass = document.myform.pass.value;
  if (uname == "") {
    alert("Username cannot be Empty!!");
    return false;
  }
  if (pass == "") {
    alert("Password must be filled");
    return false;
  }
  if (pass.length < 8) {
    alert("Password Should be longer than 8 characters.")
    return false;
  }
  if (!letter.test(pass)) {
    alert("Password should include UpperCase and LowerCase character")
```

```
        return false;

    }

    if (!number.test(pass)) {

        alert("Password should Include  Digit")

        return false;

    }

}
```

```html
    </script>

</head>

<body bgcolor="yellow">

    <center>

        <h1>Enter Your Details </h1>

    <form name="myform" action="pr5.1navigate.html" onsubmit="return validate()">

        <br>

        UserName : <input type="text" name="name" placeholder="Enter
UserName"><br><br>

        Password : <input type="password" name="pass" placeholder="Enter Password"><br>
<br>

        <input type="submit" name="" id="" value="Submit">

    </form>

</center>

</body>

</html>
```

Pr5.1navigate.html

```html
<html>

    <head>

        <Title>Welcome to the navigation page</Title>

    </head>

<body bgcolor="red">

    <center> <h1 style="color: black;">Welcome to our new web page.</h1></center>
```

</body>

</html>

Output:

Incorrect details:

practical/prs.html

This page says

Password Should be longer than 8 characters.

OK

Password : ••••

Submit

This page says

Password should include UpperCase and LowerCase character

OK

Password : •••••••••

Submit

Enter Correct details:

Enter Your Details

UserName : yash

Password : ••••••••••

Submit

Welcome to our new web page.

Practical-5.2: Make an application which check mobile number (number should be started with 9 or 8) and mail id (check @ and .)

Program:

```html
<html>
 <head>
 <script>
 function validateForm()
 {
 var phno = /^\+?([8-9]{1})\)?[-. ]?([0-9]{9})$/;
 var mail = /^[a-zA-Z0-9.!#$%&'*+/=?^_`{|}~-]+@[a-zA-Z0-9-]+(?:\.[a-zA-Z0-9-]+)*$/;


 var email = document.forms["Form"]["email"].value;
 var phoneno = document.forms["Form"]["phoneno"].value;


 if (email == "") {
 alert("E-mail must be filled");
 return false;
 }
 if (phoneno == "") {
 alert("Mobile number must be filled");
 return false;
 }
 if (phoneno.length < 10) {
 alert("Phone number must be 10 digits!")
 return false;
 }
 if (!mail.test(email)) {
 alert("Please Enter valid Email")
 return false;
 }
 if (!phno.test(phoneno)) {
```

```
alert("Please Enter valid phone number")

return false;

}

}

</script>

</head>

<title>Practical 5_2</title>

<body bgcolor="pink">

<center><h2>Validation Page</h2>

<form name="Form" action="pr5.2navigate.html" onsubmit="validateForm()"
method="post">

<br>

E-mail : <input type="text" name="email" placeholder="Enter email"><br><br>

Mobile : <input type="text" name="phoneno" placeholder="Enter mobile number"><br>
<br>

<input type="submit" value="Submit">

</form></center>

</body>

</html>
```

Pr5.2navigate.html

```
<html>

  <body>

    <center> <h1>hello <br>Dear</h1>

    <h1>Your details is succesfull saved</h1></center>

  </body>

</html>
```

Output:

Validation:

This page says

E-mail must be filled

OK

Mobile : 9825873205

Submit

This page says

Mobile number must be filled

OK

Mobile : Enter mobile number

Submit

This page says

Please Enter valid Email

OK

Mobile : 9825873205

Submit

This page says

Please Enter valid phone number

OK

Mobile : 6352172990

Submit

Validation Page

E-mail : cse.190840131033@gmail.

Mobile : 9825873205

Submit

hello

Dear

Your details is succesfull saved

Practical-5.3: Write a JavaScript that uses function to calculate how many days are left in your birthday?

Program:

```html
<html>
<head>
<script>
function validateForm() {
var number = /[0-9]/;
var number = /[0-9]/;
var bmonth = (document.forms["Form"]["month"].value);
 var bdate = document.forms["Form"]["date"].value;
document.write('<h2>');
document.write("Birth_Month = " + bmonth + '<br>');
document.write("Birth_Date = " + bdate + '<br>');
document.write('<br>');
var currentdate = new Date();
document.write("Today's Date = " + currentdate + '<br>');
document.write('<br>');
var birthday = new Date();
birthday.setDate(bdate);
birthday.setMonth(bmonth);
document.write("Birth Date = " + birthday + '<br>');
var theDate = birthday - currentdate;
theDate = (theDate / (1000*60*60*24));
document.write('<br>');
document.write("Days left for BirthDay ="+theDate.toFixed(0))
document.write('</h2>');
}
</script>
</head>
```

```
<body bgcolor="#DDDDDD">

 <center><h2>Enter Your Birth Month and date </h2>

   <form name="Form" action="P5_1_1.html" onsubmit=" validateForm()" method="post">

    <br>

    <h2>Month : <input type="text" name="month" placeholder="Birth

   Month"></h2><br>

    <h2>Date : <input type="text" name="date" placeholder="Birth Date"></h2><br>

    <input type="submit" value="Submit">

    </form>

    </body>

    </html>
```

Output:

Birth_Month = 7
Birth_Date = 4

Today's Date = Sat Apr 23 2022 20:42:15 GMT+0530 (India Standard Time)

Birth Date = Thu Aug 04 2022 20:42:15 GMT+0530 (India Standard Time)

Days left for BirthDay =103

Practical-5.4: **Write a JavaScript that uses a loop, which searches a word in sentence held in an array, returning the index of the word.**

Program:

```html
<html>
<head>
   <title>Practical 5-4</title>
</head>
<center>
   <body>
     <script >
       var str = prompt("Enter string");
       var srchword = prompt("Enter word to search in string");
       var copyword = 0;
       var temp = new Array();
       temp = str.split(" ");
       for (var i = 0; i < temp.length; ++i) {
         if (srchword.match(temp[i])) {
           copyword = srchword.match(temp[i]);
           var pos = temp.indexOf(srchword);
           document.write("Word " + srchword + " is present at " + pos + " position");
           copyword = -1;
         }
       }
       if (copyword == 0) {
         document.write(srchword + " not found in your array");
       }
     </script>
   </body onload=containsAny()>
</html>
```

Output:

This page says

Enter string

i am yash

OK   Cancel

This page says

Enter word to search in string

am

OK   Cancel

Word am is present at 1 position

Practical-5.5: **Write an HTML file with JavaScript that finds position of first occurrence of vowel "a" , last occurrence of a vowel "a" in a given word and returns the string between them. For example ajanta- then script would return first occurrence of "a"-that is position 1 and last occurrence-6 and string between them is "jant".**

Program:

```html
<html>
<head>
    <title>Position of vowel</title>
    <script>
        function validateForm() {
            var letter = /[a-z]/;
            var str = (document.forms["Form"]["string"].value);
            var strlen = str.length;
            var finder = new Array();
            var count = 0;
            //alert(strlen);
            var fletter = str.charAt(0);
            var lastletter = str.charAt(strlen);
            //alert(fletter);
            if (fletter == 'a' || lastletter == 'a') {
                document.write("String is in proper format" + '<br><br>');
            }
            document.write("\nActual String :"+str);
            document.write("<br>");
            document.write("\nGenerated String :");

            for (var index = 0; index < strlen; index++) {
                if (str.charAt(index) != 'a' && str.charAt(strlen) != 'a') {
                    var str1 = str.charAt(index);
                    //alert(str1);
```
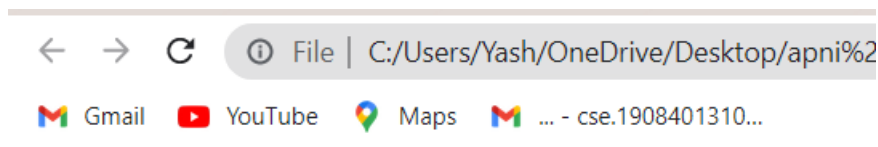
```
            document.write(str1);

          }

        }

        document.write("<br><br>");

        for(var i=0; i<strlen; i++){

          if(str.charAt(i) === 'a'){

            finder[count] = i+1;

            count++;

          }

        }

        // for(var i=0; i<count; i++){

        //    document.write(" "+finder[i]+"<br>");

        // }

        var fltr = finder[0];

        var lltr = finder[count-1];

        document.write("Fisrt letter found on &quot; "+fltr+" &quot; position. <br>");

        document.write("Last letter found on &quot; "+lltr+" &quot; position.<br>");

      }

   </script>

</head>

<body bgcolor="yellow">

   <center>

     <form name="Form" action="" onsubmit="return validateForm()" method="post">

      <br>

      Enter String : <input type="text" name="string" placeholder="Enter String"><br><br>

      <input type="submit" value="Submit">

     </form>

</body>

</html>
```

Output:

Enter String : arajua

Submit

← → C ⓘ File | C:/Users/Yash/OneDrive/Desktop/apni%2

M Gmail ▶ YouTube 📍 Maps M ... - cse.1908401310...

String is in proper format

Actual String :arajua
Generated String :rju

Fisrt letter found on " 1 " position.
Last letter found on " 6 " position.

Practical-5.6: **Write a JavaScript which accepts N as input and display first N Fibonacci numbers as list.**

Program:

```html
<html>

<head>
  <script>
    function validateForm() {
      var a = 0,
        b = 1;
      var n = (document.forms["Form"]["fibo"].value);
      document.write('<h1>' + "Fibonacci Series:" + '</h1>' + '<br>');
      document.write('<h3>');
      document.write("0 1 ");
      for (i = 2; i < n; i++) {
        c = a + b;
        document.write(c + " ");
        a = b;
        b = c;
      }
      document.write('</h3>');
    }
  </script>
</head>

<body bgcolor="green">
  <center>
    <h2>Fibonacci Series</h2>
    <form name="Form"  onsubmit=" validateForm()" >
      <br>
```
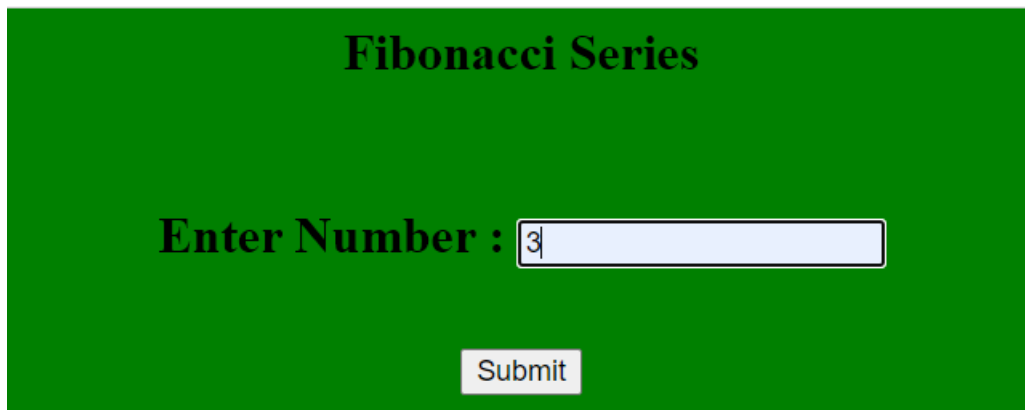
```
        <h2>Enter Number : <input type="text" name="fibo"
placeholder="Number"></h2><br>

        <input type="submit" value="Submit">

    </form>

</body>

</html>
```

Output:

Fibonacci Series

Enter Number : 3

Submit

Fibonacci Series:

0 1 1

Practical-5.7: Write a JavaScript that handles following mouse events Add necessary elements.

    (i)   JavaScript gives the key code for the key pressed.

    (ii)   If the key pressed is "a","e","i","o","u" the script should announce that vowel is pressed.

    (iii)   When the key is released background should change to blue.

Program:

```
<html>

<head>

<title>Mouse Event Handler</title>

<script>

 window.onkeyup = changebgcolor;

function myKeyPress(e)

{ var keynum;

keynum = e.which;

var char1 = String.fromCharCode(keynum);

//for vovel

if (char1 == 'a' || char1 == "e" || char1 == 'i' || char1 == 'o' || char1 == 'u') { alert("Vowel is pressed");

}

alert("You pressed " + char1 + " & keycode for that is " + keynum);
document.body.style.backgroundColor = "white";

}


function changebgcolor() { document.getElementById("txt1");

document.body.style.backgroundColor = "blue";

}

</script>

</head>

<body>

<form>

<h3>
```

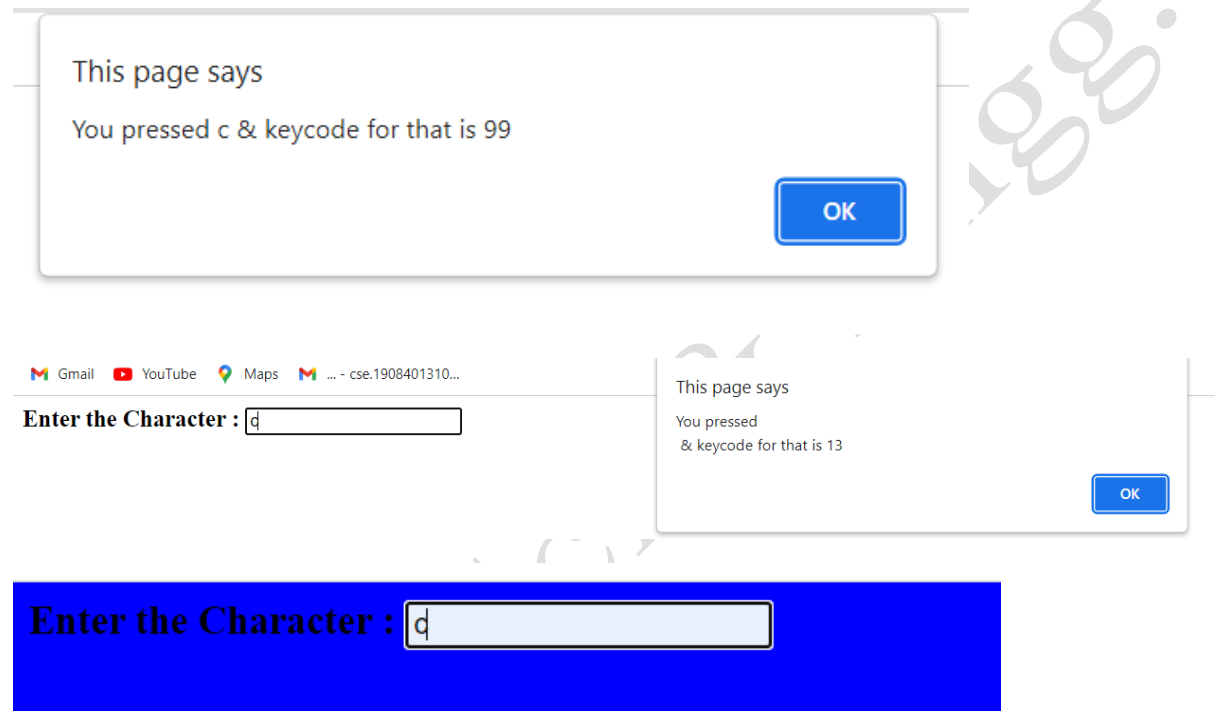Enter the Character : <input type="text" id="txt1" onkeyup="changebgcolor()" onkeypress="myKeyPress(event)" />

</h3>

</form>

</body>

</html>

Output:

Practical-5.8: Write a JavaScript to print characters of a string at odd positions.(for example for the string India, I, d and a should get printed).

Program:

```
<html>


<head>
    <title>Practical5-8</title>
</head>
<script type="text/javascript">
    var str = prompt("Enter a String:");
    var strlen = str.length;
    alert(strlen);
    for (var i = 1; i <= strlen; i++) {
        if (i % 2 == 1) {
            mychar = str.charAt(i - 1);
            document.write(mychar + " ");
        }
    }
</script>


</html>
```
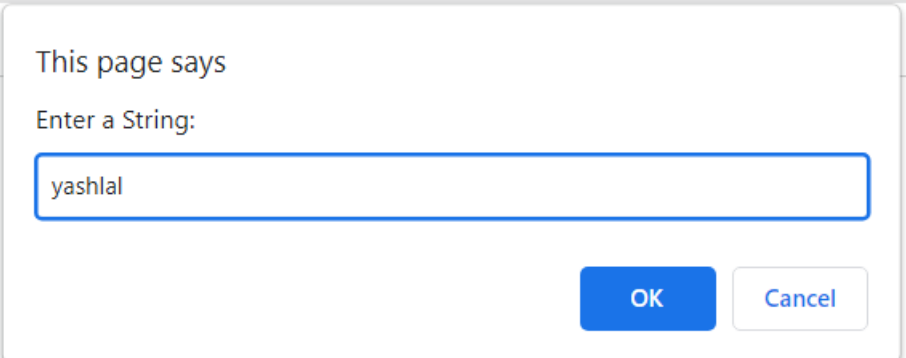
Output:

This page says

Enter a String:

yashlal

OK   Cancel

This page says

7

OK

y s l l

Practical-5.9: Write a JavaScript to take 2 digit number and then separate these 2 digits, then multiply first digit by itself for second digit times.(for example, 23 should be separated as 2 and 3. 2 should multiply with itself 3 times).

Program:

```
<html>
<head>
    <title>Practical 5_9</title>
    <center>
        <script type="text/javascript">
            var num = parseInt(prompt(("Enter Two Numbers:")));
            var n1 = num % 10;
            document.write("You have entered:" + num + "<br/>")
            var n2 = parseInt(num / 10);
            for(var i=1;i<=n1;i++){
            var result = n2 ** n1;}
            document.write(n2 + " multiply itself " + n1 + "times  = " + result);
        </script>
</head>
</html>
```
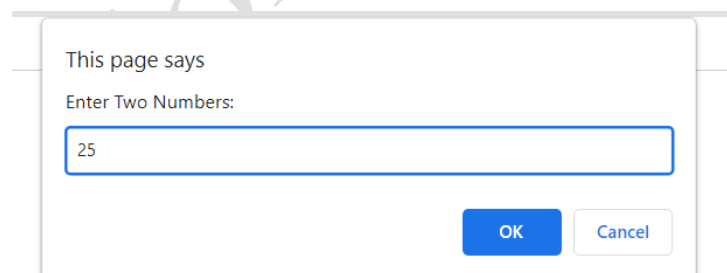
Output:

This page says

Enter Two Numbers:

25

OK   Cancel

You have entered:25
2 multiply itself 5times = 32

Practical-5.10: Write a JavaScript that handles following mouse events. Add necessary elements

(i) **If the mouse is over the heading should turn yellow and if the mouse goes out of the heading it should turn black.**

(ii) **If find time button is clicked show time and date information. If button named "red" is clicked, background should change to red and If button named "green" is clicked, background should change to green**

Program:

```html
<html>
<head>
  <title>Practical 5_10</title>
  <script type="text/javascript">
    function showdt() {
      document.getElementById("dt").innerHTML = Date();
    }
    function bground(val) {
      if (val == 'red') {
        document.body.style.background = "red";
      } else if (val == 'green') {
        document.body.style.background = "green";
      }
    }
    function MouseOver(elem) {
      elem.style.color = "yellow";
    }
    function MouseOut(elem) {
      elem.style.color = "black";
    }
  </script>
</head>
<body>
```

```
<center>
    <h1>1.Press time to watch time </h1>
    <h1>2.Press red to change background to red </h1>
    <h1>3.Press green to change background to green </h1>
    <h2 id="header" onmouseover="MouseOver(this)" onmouseout="MouseOut(this);">
    </h2>
    <p id="dt"></p>
    <input type="button" onclick="showdt()" value="Date Time" /></br></br>
    <input type="button" id="rbtn" onclick="bground('red')" value="Red" /></br></br>
    <input type="button" id="gbtn" onclick="bground('green')" value="Green" />
</body>
</html>
```

Output:

1.Press time to watch time

2.Press red to change background to red

3.Press green to change background to green

[Date Time]

[Red]

[Green]

1.Press time to watch time

2.Press red to change background to red

3.Press green to change background to green

Sat Apr 23 2022 23:00:39 GMT+0530 (India Standard Time)

[Date Time]

[Red]

[Green]

1.Press time to watch time

2.Press red to change background to red

3.Press green to change background to green

Sat Apr 23 2022 23:00:39 GMT+0530 (India Standard Time)

Date Time

Red

Green

1.Press time to watch time

2.Press red to change background to red

3.Press green to change background to green

Sat Apr 23 2022 23:00:39 GMT+0530 (India Standard Time)

Date Time

Red

Green