Experiment 16:

Aim : To make 12Hour Clock using javascript.

Source Code:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
  <meta charset="utf-8">
  <script src="js/clock.js" charset="utf-8"></script>
  <title>Clock</title>
 </head>
 <body onLoad="clock();">
    <form name="timeClock">
     <input type="button" name="digits">
    </form>
 </body>
</html>
```

JS File:

```
function clock(){
 var time = new Date();
 var hr = time.getHours();
 var min  = time.getMinutes();
 var sec  = time.getSeconds();
 var a = "PM";
 if(hr < 12){a = "AM";}
 if(hr > 12){hr = hr - 12;}
 if(hr < 10){hr = " "+hr;}
 if(min < 10){min = "0"+min;}
 if(sec < 10){sec = "0"+sec;}
 document.timeClock.digits.value = hr +":"+min+":"+sec+" "+a;
 setTimeout("clock()",1000);}
```
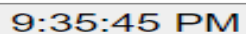
OUTPUT:

<u>Experiment 17:</u>

<u>Aim :</u> To write a program to that wishes according to time and displays the current day and date using javascript.

<u>Source Code:</u>

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <script src="js/datetimewish.js" charset="utf-8"></script>
  </head>
  <body>
  </body>
</html>
```

Js File:

```
var now = new Date();
var year = now.getFullYear();
var month = now.getMonth();
var date = now.getDate();
var lstwrd;
if(date < 10){var lastDigit = date;}
else{var lastDigit = date % 10;}
if(lastDigit == 1) {lstwrd = "st";}
else if(lastDigit == 2) {lstwrd = "nd";}
else if(lastDigit == 3) {lstwrd = "rd";}
else {lstwrd = "th"};
var Months = new Array("January","February","March","April","May","June","July",
  "August","September","October","November","December");
var fullDate = date + lstwrd;
var totalDate;
totalDate = Months[month]+" "+fullDate+" "+year;
document.write("<h1>"+totalDate);
```

```
var hr = now.getHours();

if(hr < 12){var text ="Morning";}

else if(hr < 17){text = "Afternoon";}

else if(hr < 20){text = "Evening";}

else {text = "Night";}

document.write("<br>"+"Good"+" "+text);
```

Output:

October 7th 2020
Good Night

Experiment 18:

Aim : To write a program to display background color as the color button is clicked using javascript.

Source Code:

```
<!DOCTYPE html>

<html lang="en" dir="ltr">

 <head>

  <meta charset="utf-8">

  <title></title>

  <script src="evnt2.js" charset="utf-8"></script>

 </head>

 <body bgcolor="Red">

  <input type="button" name="button" id="btn" value="Red" onClick="change();" ondblclick="changeTwo();">

 </body>

</html>

Js File:

function changeColor(color) {

   document.body.style.background = color;

   document.getElementById("btn").value= color;
```
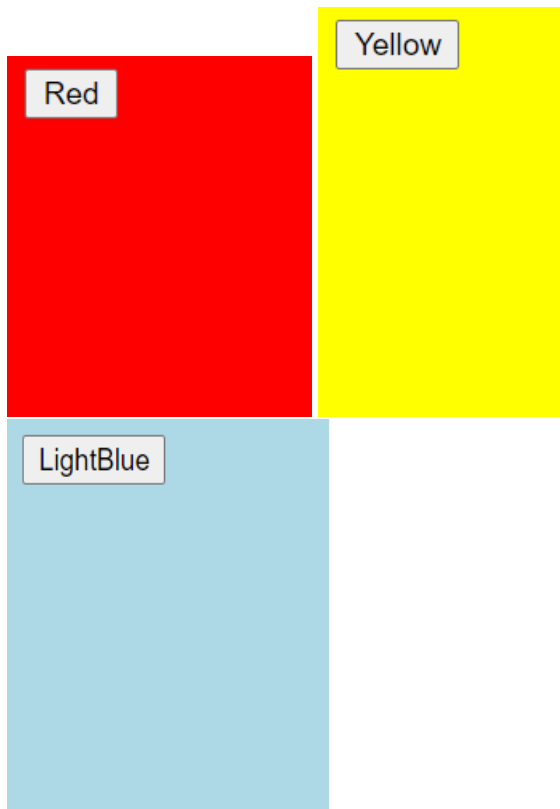
```
        }
function change() {
    changeColor('Yellow');
}
function changeTwo() {
    changeColor('LightBlue');
}
```

Ouput:

Experiment 19:

Aim : To write a program to use event handler to change image on hover using javascript.

Source Code:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
   <meta charset="utf-8">
   <script src="event1.js" charset="utf-8"></script>
   <title></title>
 </head>
 <body>
```

```
    <img src="images/1.jpg" alt="Boy" id="img"  onMouseOver="call();" onMouseOut="unCall();">
 </body>
</html>
```

Js File:

```
 function call() {
  document.getElementById("img").src = "images/2.jpg";
}
function unCall() {
  document.getElementById("img").src = "images/1.jpg";
}
```

Ouput:

Experiment 20:

Aim : To write a program to enter a name through input box and concatenate with other word in a new window using javascript.

Source Code:

```
<!DOCTYPE html>
```

```html
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <script src="a.js" charset="utf-8"></script>
    <title>form</title>
  </head>
  <body onUnload="closeWindow();">
    <form name="setup">
      <input type="text" name="txt" placeholder="Enter Name" value="">
      <input type="button" value="New" onClick="openWindow();">
    </form>
  </body>
</html>
```
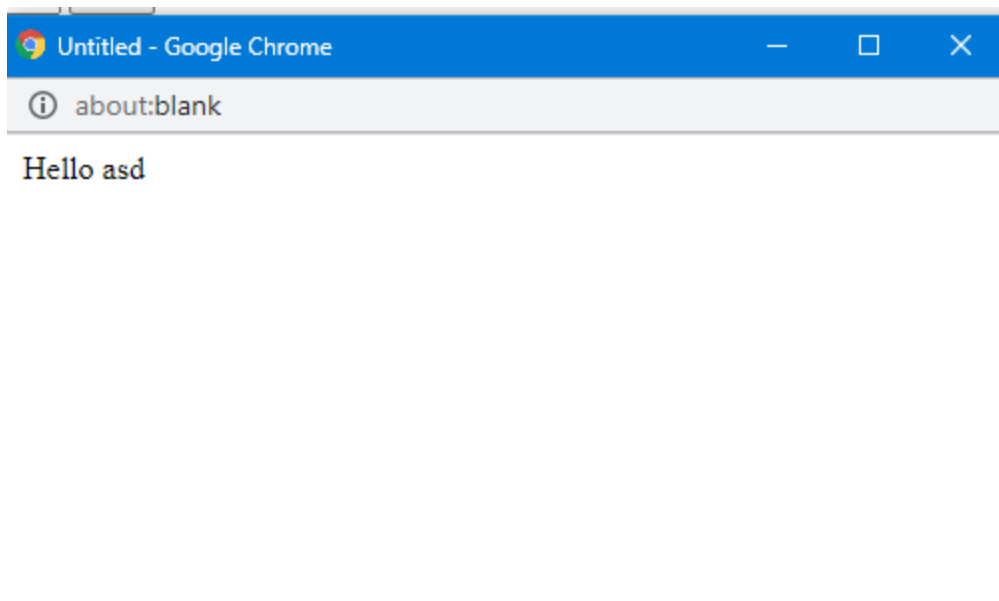
Js File:

```javascript
function openWindow(){
 lol = open('','ht','height=500,width=500,status=1,scrollbars=1,screenX=100,screenY=200,top=100,left=150');
 lol.document.write('<html><body>Hello '+document.setup.txt.value+'</body></html>');
}
function closeWindow(){
 close();
}
```

OUTPUT:

Experiment 21:

<u>Aim :</u> To write a program to use (this) attribute using javascript.

<u>Source Code:</u>

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
  <meta charset="utf-8">
  <script src="index.js" charset="utf-8"></script>
  <title>Hello</title>
 </head>
 <body>
 </body>
</html>
```

JS FILE:

```
function student(name, dob, sem, residence) {
    this.Name = name;
    this.Dob = dob;
    this.sem = sem;
    this.Residence = residence;
    this.FullDetails = this.Name+"<br>"+this.Dob+"<br>"+this.sem+"<br>"+this.Residence; }
 var s1 = new student("Aniket","22/02/2000","5sem","Rajsamand");
 function branch(name, batch, student){
    this.name = name;
    this.batch = batch;
    this.student = student;
    this.FullName1 = "<font color='blue'>Student: "+student.FullDetails+"<br>"+   "<font color='red'>Branch:
"+this.name+"<br>"+this.batch;
    this.display = display; }
 function display(){
    document.write("<center><h1>"+this.FullName1+"</h1>");}
 var b1 = new branch("cse","2018-2022",s1);
 b1.display();
```

OUPUT:

Experiment 22:

Aim : To write a program to enlarge an image on hover using javascript.

Source Code:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
  <meta charset="utf-8">
  <title>Image hover</title>
  <script src="js/imagejs.js" charset="utf-8"></script>
 </head>
 <body>
 <img src="images/1.jpg" id="new" onMouseOver="large()" onMouseOut="small()">
 </body>
</html>
```

Js File:

```
function large() {
 document.getElementById("new").style.width = 900;
 document.getElementById("new").style.height = 600;
}
function small() {
 document.getElementById("new").style.width = 600;
 document.getElementById("new").style.height = 300;
}
```

OUPUT:

Experiment 23:

Aim : To write a program to use the video tag in Html5.

Source Code:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
  <meta charset="utf-8">
  <title>filmy Webpage</title>
  <link rel="stylesheet" href="css/filmy.css">
  <script type="text/javascript">
  function startVideo(clicked_id) {
   var x = clicked_id;
   var video = document.getElementById('loader');
   var source = document.createElement('source');
   if(x == 1){
      source.setAttribute('src', 'F:/films/I,-R0b0t-2004-1080p-hdp0pc0rns.mp4');
      video.appendChild(source);
      video.play();}
   else if (x == 2){
      source.setAttribute('src', 'F:/films/Bolt-2008-1080p.mp4');
      video.appendChild(source);
      video.play();}
   else {
     source.setAttribute('src', 'F:/films/Interstellar-2014-1080p-.mp4');
     video.appendChild(source);
     video.play();}  }
  </script>
 </head>
 <body>
```

```html
<button type="button" id="1" onclick="startVideo(this.id);" ondblclick="location.reload();">I-robot</button>

<button type="button" id="2" onclick="startVideo(this.id)" ondblclick="location.reload();">Bolt</button>

<button type="button" id="3" onclick="startVideo(this.id)" ondblclick="location.reload();">Intestellar</button>
<div class="player"> <video controls id="loader"></video></div>
</body>
</html>
```

Css File:

```css
*{
 padding: 0;
 margin: 0;
 box-sizing: border-box;
}
body{
 margin: 10px;
 background: grey;
}
button{
 background: none;
 border-radius: 10px;
 padding: 5px;
}
button:hover{
 background: black;
 color: white;
}
.player video{
 width: 100%;
 height: 500px;
 margin-top: 50px;
}
```
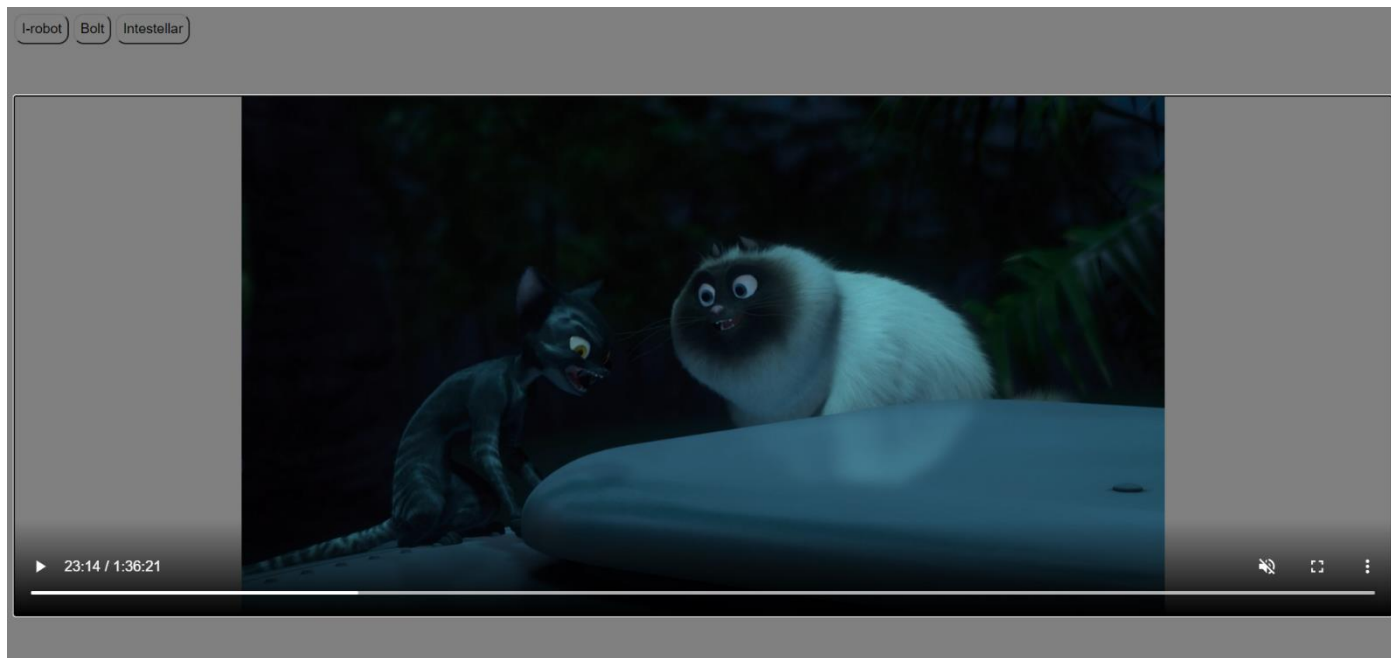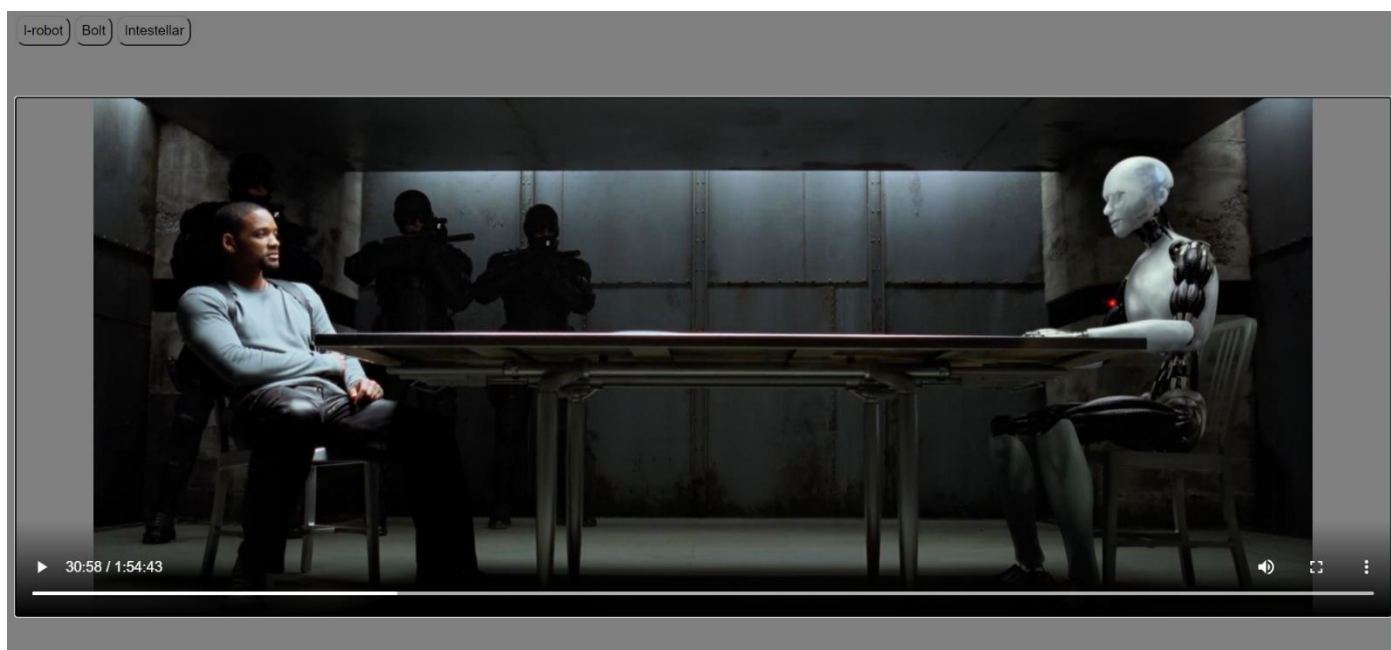
OUTPUT :

Onclick Bolt Button:

Onclick I-Robot Button:

Experiment 24:

Aim : To write a program to use the video tag in Html5.

Source Code:

```
<!DOCTYPE html>

<html lang="en" dir="ltr">

  <head>
```

```html
<meta charset="utf-8">
<title>songs Webpage</title>
<link rel="stylesheet" href="css/filmy.css">
<script type="text/javascript">

function startVideo(clicked_id) {
  var x = clicked_id;
  var audio = document.getElementById('loader');
  var source = document.createElement('source');
  if(x == 1)
   {
     source.setAttribute('src', 'music/Heer Ranjha - Bhuvan Bam _ Official Music Video .mp3');
     audio.appendChild(source);
     audio.play();
   }
  else if (x == 2)
    {
      source.setAttribute('src', 'music/Kina - get you the moon (Lyrics) ft. Snow.mp3');
      audio.appendChild(source);
      audio.play();
    }
  else {
    source.setAttribute('src', 'music/YALGAAR - CARRYMINATI X Wily Frenzy.mp3');
    audio.appendChild(source);
    audio.play();
  }
 }
 </script>
</head>
<body>
 <button type="button" id="1" onclick="startVideo(this.id);" ondblclick="location.reload();">Heer Ranjhaa</button>
 <button type="button"  id="2" onclick="startVideo(this.id)" ondblclick="location.reload();">You Get The Moon</button>
 <button type="button"  id="3" onclick="startVideo(this.id)" ondblclick="location.reload();">Yalgaar</button>
<br><br>
<div class="player">
 <audio controls id="loader">
 </audio>
</div>
```

```
    </body>

</html>
```

```css
*{
  padding: 0;
  margin: 0;
  box-sizing: border-box;
}
body{
  margin: 10px;
  background: grey;
}
button{
  background: none;
  border-radius: 10px;
  padding: 5px;
}
button:hover{
  background: black;
  color: white;
}
.player audio{
  width: 100%;
  height: 500px;
  margin-top: 50px;
}
```

OUTPUT

Onclick Somebody's ME:

somebody's Me   bailamos   Rythm Divine

▶ 0:00 / 0:00 ———————————————— ◀))

Experiment 25:

Aim : To write a program to make a mini-calci using Output tag in html5.

Source Code:

```
<!DOCTYPE html>
<html lang="en" dir="ltr"
 <head>
  <meta charset="utf-8">
  <title></title>
 </head>
 <body>
  <form name="calculator">
   <input type="text" name="display1" >
   <input type="text" name="display2" > =
   <output name="result"></output>
    <br> <br>
   <button type="button"
   onclick="result.value = parseInt(display1.value) + parseInt(display2.value)">+</button>
   <button type="button"
   onclick="result.value = parseInt(display1.value) - parseInt(display2.value)">-</button>
   <button type="button"
   onclick="result.value = parseInt(display1.value) * parseInt(display2.value)">*</button>
   <button type="button"
   onclick="result.value = parseInt(display1.value) / parseInt(display2.value)">/</button>
  </form>
 </body>
```
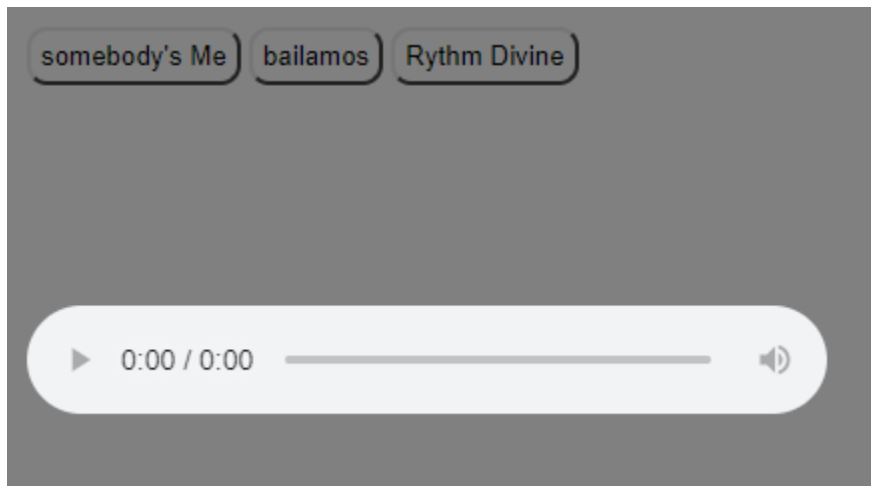
</html>

OUPUT:

Experiment 26:

Aim : To write a program to use datalist tag in html5.

Source Code:

```html
<!DOCTYPE html>

<html>

  <head>

    <title>Datalist</title>

  </head>

  <body>

    <div class="box">

      <div class="container-fluid">

        <div class="first">

          <form><br><br><br>

            <label for="browser">State:</label>

            <input list="state" id="stateName" oninput="showCity();">

            <datalist id="state">

            <option value="Rajasthan">

            <option value="punjab">

            <option value="Madhya pradesh">

            </datalist>

          </form>

        </div><br>

      <div id="container" class="first">

        <form>

          <label for="browser">City:</label>

          <input list="city" id="cityName">

          <datalist id="city">

          </datalist>

        </form>

      </div>
```

```
            </div>

        </div>

        <script>

            function showCity(){

                var str="";

                var Rajasthan = ['udaipur','rajsamand','jaipur','jhodpur'];

                var punjab = ['chandigarh','ludhiana','amritsar'];

                var mp = ['neemuch','indore','bhopal','mysore'];

                var a = document.getElementById('stateName').value;

                var b = document.getElementById('city');

                    if( a==="Rajasthan"){

                        for (var i=0; i < Rajasthan.length;++i){

                    str += '<option value="'+Rajasthan[i]+'"/>'; // Storing options in variable  }  }

                    else if(a==="punjab"){ for (var i=0; i < punjab.length;++i){

                    str += '<option value="'+punjab[i]+'"/>'; // Storing options in variable

                } }

                    else if(a==="Madhya pradesh"){

                        for (var i=0; i < mp.length;++i){

                    str += '<option value="'+mp[i]+'"/>'; // Storing options in variable}}

                b.innerHTML = str;

                document.getElementById('container').style.display="block";}

        </script>

    </body></html>
```

OUPUT :

State: punjab

City: ludhiana

Experiment 27:

<u>Aim :</u> To write a program to validate username,e-mail id and phone number in form using regular expressions in javascript with an alert box for invalid entry.

<u>Source Code:</u>

```html
<!DOCTYPE html>

<html>

<head>

        <title>Form Validation</title>

  <style type="text/css">

                        h1{text-align:center;}

        form{

    background-color: orange;

    width:300px;

    height:300px;

        display:block;

    margin-top:8%;

    margin-left:30%;

        padding-top: 50px;

        padding:100px;

        font-size: 20px;}

input{

    outline: 0;

    padding: 10px;

    display:block;

    font-size:20px;

    background-color: white;}

</style>

        <script type="text/javascript">

                function validate(){

                        var name = document.getElementById('name').value;

                        var number = document.getElementById('number').value;

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

                        var a = new RegExp("^[A-Z|a-z|]([A-Z|a-z||0-9]){2,10}");

                        var b = new RegExp("^[9|8|7|6]([0-9]){9}");

                        var c = new RegExp("^[A-Z|a-z|0-9|.|_|%|+|-]+@[A-Z|a-z|0-9|.|-]+\.[a-z]{2,}$");

                        var nameResult = a.test(name);

                        var phoneResult = b.test(number);

                        var emailResult = c.test(email);

                        if(nameResult == false){

                                alert('Please enter a valid Username');}

                        if(phoneResult == false){

                                alert('Please enter a valid phone number');}
```

```
                    if(emailResult == false){

                    alert('Please enter a valid email');}}

        </script>

</head>

<body>

<form action="" onsubmit="validate()">

            <h1><b>Login </b></h1>

            <input type="text" id="name" placeholder="Username" /><br>

            <input type="text"id="number" placeholder="Phone Number"/> <br>

            <input type="text" id="email" placeholder="Email" /><br>

            <input type="submit" />

</form>

</body>

</html>
```

OUPUT:

Login

| aniket.vyas |

| 9876543212 |

| aniket.vyas@spsu.ac.in |

| Submit |

Experiment 28:

Aim : To write a program to validate Ip Address using Regular expression.

Source Code:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
 <head>
  <meta charset="utf-8">
  <title></title>
 </head>
 <script type="text/javascript">
   function validate(){
                          var address = document.getElementById('address').value;
                          var a = new RegExp("^(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-
9]?)\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)$");
                          var Result = a.test(address);
      if (Result == true) {
        alert('entered a correct ip address');}
      else {alert('entered a incorrect ip address');}}
          </script>
 <body>
    <form onsubmit="validate()">
     <h1>Ip address</h1>
     <input type="text" id="address" value="" placeholder="ip"><br>
     <input type="submit">
    </form>
</body></html>
```

OUPUT:

Ip address

`172.15.234.1|`
`Submit`

localhost:5500 says

entered a correct ip address