

# UCS1601---Internet Programming

## **Exercise 3: JavaScript event handling mechanisms, DOM**

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### **Learning objective of the experiment:**

- To generate a registration form for a hospital to register new patient details.
- Write a JS program to develop a memory matching game.

### **Program file contents:**

#### **Registration form**

*index.html*

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width">
    <link rel="stylesheet" href="style.css">
    <script src="script.js"></script>
    <title>Hospital reg_form</title>
  </head>
```

```

<body background="Images/bg.png" onload="startTime()" style="height: 120%;">
<div id="container">
<header>
  <div class="heading">
    <p id="clock" style="text-align: right;"></p>
    </img>

    <br>
    <h1>Hospital Management System</h1>
  </div>
</header>
<h2 id="form_title">New patient Registration</h2>
<br>

<table align="center">
<td>
<form id="myform">
<label for="name">Name</label>
<input name="name" type="text" id="name" onfocus="focusFunction(this)" onblur=
"blurFunction(this)" oninvalid="nInvalidFunc()" required><br>
<br>

<label for="add">Address</label>
<textarea id="add" name="add" rows="4" cols="50" onfocus="focusFunction(this)"
onblur="blurFunction(this)" onselect="selectFunc()"></textarea><br><br>

<label for="age">Age</label>
<input name="age" type="number" id="age" onfocus="focusFunction(this)" onblur=
"blurFunction(this)" onkeypress="okpFunc()"><br>

<label for="dob">DOB</label>
<input name="dob" type="date" id="dob" onfocus="focusFunction(this)" onblur="b
lurFunction(this)"><br>

<label for="sex">Gender</label>
<input name="sex" type="radio" value="Male" id="sex1">Male
<input name="sex" type="radio" value="Female" id="sex2">Female
<input name="sex" type="radio" value="Others" id="sex3">Others
<br>

<label for="ms">Marital Status</label>
<input name="ms" type="radio" value="Married" id="ms1" onchange="msFunc(this)"
>Married
<input name="ms" type="radio" value="Unmarried" id="ms2" onchange="msFunc(this
)">Unmarried
<br>

```

```

<label for="phno">Contact number</label>
<input name="phno" type="tel" id="phno" maxlength="10" onfocus="focusFunction(
this)" onblur="blurFunction(this)" oninvalid="phInvalidFunc()" required><br>
<br>

<label for="addic">Addictions(if any)</label>
<textarea id="addic" rows="4" cols="30"></textarea>
  <p id="addic1" draggable="true" style="border: 1px solid black;display: inli
ne-block;">Smoking</p>
  <p id="addic2" draggable="true" style="border: 1px solid black;display: inli
ne-block;">Drinking</p>
  <br>

<button type="submit" onclick="submitFunc()">Submit</button>
<button type="reset" onclick="resetFunc()">Reset</button>
</td>

</table>
</form>
  <div id="footer">
    <footer>
      <p style="text-align: center;"> This website is created by Vishal T</p>
    </footer>
  </div>
</div>
</body>
</html>

```

## display.html

```

<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width">
    <link rel="stylesheet" href="style.css">
    <script src="script.js"></script>
    <title>Hospital reg_form</title>
    <style>
      table, th, td {
        border: 1px solid black;
      }
    </style>

```

```

<script>
    function init() {
        // Retrieving the text input's value which was stored into localStorag
e
        var myname = localStorage.getItem("name");
        var myadd = localStorage.getItem("add");
        var myage = localStorage.getItem("age");
        var mydob = localStorage.getItem("dob");
        var mygen = localStorage.getItem("sex");
        var myms = localStorage.getItem("ms");
        var myphno = localStorage.getItem("phno");
        var myaddic = localStorage.getItem("addic");

        // Writing the value in the document
        document.getElementById("myname").innerHTML= myname;
        document.getElementById("myadd").innerHTML= myadd;
        document.getElementById("myage").innerHTML= myage;
        document.getElementById("mydob").innerHTML= mydob;
        document.getElementById("mygen").innerHTML= mygen;
        document.getElementById("myms").innerHTML= myms;
        document.getElementById("mycontact").innerHTML= myphno;
        document.getElementById("myaddic").innerHTML= myaddic;

    }
</script>
</head>

<body background="Images/bg.png" onload="startTime();init()" style="height:
120%;">
<div id="container">
<header>
    <div class="heading">
        <p id="clock" style="text-align: right;"></p>
        </img>

        <br>
        <h1>Hospital Management System</h1>
    </div>
</header>

<table align="center">
    <caption>Patient's Details</caption>s
    <tr>
        <td>Name</td>
        <td id="myname"></td>
    </tr>

```

```

<tr>
  <td>Address</td>
  <td id="myadd"></td>
</tr>
<tr>
  <td>Age</td>
  <td id="myage"></td>
</tr>
<tr>
  <td>DOB</td>
  <td id="mydob"></td>
</tr>
<tr>
  <td>Gender</td>
  <td id="mygen"></td>
</tr>
<tr>
  <td>Martital Status</td>
  <td id="mym"></td>
</tr>
<tr>
  <td>Contact Number</td>
  <td id="mycontact"></td>
</tr>
<tr>
  <td>Addictions</td>
  <td id="myaddic"></td>
</tr>
</table>
<div id="footer">
  <footer>
    <p style="text-align: center;"> This website is created by Vishal T</p>
  </footer>
</div>
</div>
</body>
</html>

```

script.js

```

//Name
function focusFunction(elemt)
{
  elemt.style.background="#61b3ff";
}

```

```

function blurFunction(element) {
    elemt.style.background="#a9ff88";
}

function nInvalidFunc() {
    alert("Name is required");
}

//address
function selectFunc(){
    alert("Text selected!");
}

//Age
function okpFunc(){
    document.getElementById("age").style.color="red";
}

//Gender
function genValue(){
    var ele = document.getElementsByName("sex");
    for(i = 0; i < ele.length; i++) {
        if(ele[i].checked)
        {
            return ele[i].value;
        }
    }
}

//Marital Status
function msFunc(element){
    if(elemt.id=="ms1"){
        alert("You are married");
    }
    else{
        alert("You are Unmarried");
    }
}

function msValue(){
    var ms = document.getElementsByName("ms");
    for(i = 0; i < ms.length; i++) {
        if(ms[i].checked)
        {
            return ms[i].value;
        }
    }
}

```

```

//phno
function phInvalidFunc() {
    alert("Contact Number is required");
}

//Addiction
document.addEventListener('dragstart', function (event) {
    event.dataTransfer.setData('text/plain', event.target.innerHTML);
});

//Clock
function startTime() {
    var today = new Date();
    var h = today.getHours();
    var m = today.getMinutes();
    var s = today.getSeconds();
    m = checkTime(m);
    s = checkTime(s);
    document.getElementById('clock').innerHTML =
    h + ":" + m + ":" + s;
    var t = setTimeout(startTime, 500);
}
function checkTime(i) {
    if (i < 10) {i = "0" + i}; // add zero in front of numbers < 10
    return i;
}

//Submit
function submitFunc(){
    var name= document.getElementById("name").value;
    localStorage.setItem("name", name);

    var add= document.getElementById("add").value;
    localStorage.setItem("add", add);

    var age= document.getElementById("age").value;
    localStorage.setItem("age", age);

    var dob= document.getElementById("dob").value;
    localStorage.setItem("dob", dob);

    var sex= genValue();
    localStorage.setItem("sex", sex);

    var ms= msValue();
    localStorage.setItem("ms", ms);
}

```

```

var phno= document.getElementById("phno").value;
localStorage.setItem("phno", phno);

var addic=document.getElementById("addic").value;
localStorage.setItem("addic", addic);

window.open("display.html");
}

//Reset
function resetFunc(){
    alert("The Form has been reset");
}

```

## style.css

```

#form_title,caption{
    color:#41cc0a;
    text-align: center;
    font-family: 'Courier New', Courier, monospace;
    font-size: 30px;
    font-style: italic;
    font-weight: bold;
}

h1 {
    color:#fdc200;
    font-family:Arial, Helvetica, sans-serif;
    font-size: 40px;
    letter-spacing: 1px;
    text-shadow: 2px 2px black ;
}

.heading {
    margin: auto;
    text-align:center;
}

label{
    color:black;
    font-family:Arial, sans-serif;
    width: 200px;
    display: inline-block;
}

```



```
}

p{
  color:black;
  font-family:Arial, sans-serif;
  font-size: 20px;
  line-height: 26px;
  margin: 0;
}

table{
  font-size:20px;
}

html,
body {
  margin:0;
  padding:0;
  height:100%;
}

#container {
  min-height:100%;
  position:relative;
}

#footer {
  position:absolute;
  bottom:0;
  width:100%;
  height:40px; /* Height of the footer */
  background:#6cf;
}

td{
  color:black;
  font-family:Arial, sans-serif;
  font-size: 20px;
}
```

## Memory Game:

index.html

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
  <meta charset="UTF-8">
  <title>Memory Game</title>
  <link rel="stylesheet" href="style.css"></link>
  <script src="script.js" charset="utf-8"></script>
</head>
<body>
  <h1>Memory Game</h1>
  <div style="text-align: center;">
    <h3>Level:<span id="level">1</span></h3>
    <h3>Score:<span id="result"></span></h3>
    <h3>Timer:<span id="time">60</span></h3>
  </div>
  <div class="grid" id="grid" style="margin: auto;">
  </div>
  <div style="text-align: center;">
    <input type="button" id="mixBut" value="Start" onclick="Start_Stop()">
  </div>
</body>
</html>
```

script.js

```
function start_game(){
  //card options

  const cardArray = [
    {
      name: 'fries',
      img: 'images/fries.png'
    },
    {
      name: 'cheeseburger',
      img: 'images/cheeseburger.png'
    },
    {
      name: 'ice-cream',
      img: 'images/ice-cream.png'
    },
    {
```

```

    name: 'pizza',
    img: 'images/pizza.png'
  },
  {
    name: 'milkshake',
    img: 'images/milkshake.png'
  },
  {
    name: 'hotdog',
    img: 'images/hotdog.png'
  },
  {
    name: 'fries',
    img: 'images/fries.png'
  },
  {
    name: 'cheeseburger',
    img: 'images/cheeseburger.png'
  },
  {
    name: 'ice-cream',
    img: 'images/ice-cream.png'
  },
  {
    name: 'pizza',
    img: 'images/pizza.png'
  },
  {
    name: 'milkshake',
    img: 'images/milkshake.png'
  },
  {
    name: 'hotdog',
    img: 'images/hotdog.png'
  }
]

cardArray.sort(() => 0.5 - Math.random())

const grid = document.querySelector('.grid')
const resultDisplay = document.querySelector('#result')
var score=0;
let cardsChosen = []
let cardsChosenId = []
let cardsWon = []

//create your board
function createBoard() {

```

```

    for (let i = 0; i < cardArray.length; i++) {
        const card = document.createElement('img')
        card.setAttribute('src', 'images/blank.png')
        card.setAttribute('data-id', i)
        card.addEventListener('click', flipCard)
        grid.appendChild(card)
    }
}

//check for matches
function checkForMatch() {
    const cards = document.querySelectorAll('img')
    const optionOneId = cardsChosenId[0]
    const optionTwoId = cardsChosenId[1]

    if(optionOneId == optionTwoId) {
        cards[optionOneId].setAttribute('src', 'images/blank.png')
        cards[optionTwoId].setAttribute('src', 'images/blank.png')
        alert('You have clicked the same image!')
    }
    else if (cardsChosen[0] === cardsChosen[1]) {
        alert('You found a match')
        score=score+1;
        resultDisplay.textContent=score;
        cards[optionOneId].setAttribute('src', 'images/white.png')
        cards[optionTwoId].setAttribute('src', 'images/white.png')
        cards[optionOneId].removeEventListener('click', flipCard)
        cards[optionTwoId].removeEventListener('click', flipCard)
        cardsWon.push(cardsChosen)
    } else {
        cards[optionOneId].setAttribute('src', 'images/blank.png')
        cards[optionTwoId].setAttribute('src', 'images/blank.png')
        alert('Sorry, try again')
    }
    cardsChosen = []
    cardsChosenId = []
    resultDisplay.textContent = cardsWon.length
    if (cardsWon.length === cardArray.length/2) {
        alert('Congratulations! You won 1st level and going to next');
        level++;
        if(level==1){
            level_time=60;
        }
        else if(level==2){
            level_time=40;
        }
        else{
            level_time=25;
        }
    }
}

```

```

    }
    document.getElementById("level").innerHTML=level;
    document.getElementById("time").innerHTML=level_time;
    Start_Stop();
    reset_game();
  }
}

//flip your card
function flipCard() {
  let cardId = this.getAttribute('data-id')
  cardsChosen.push(cardArray[cardId].name)
  cardsChosenId.push(cardId)
  this.setAttribute('src', cardArray[cardId].img)
  if (cardsChosen.length ===2) {
    setTimeout(checkForMatch, 500)
  }
}

createBoard()
}

function reset_game(){
  document.getElementById("grid").innerHTML=" ";
}

var myTimer;
var level=1;
var level_time=60;
function clock() {
  myTimer = setInterval(myClock, 1000);
  if(level==1){
    var c = 60;
  }
  else if(level==2){
    var c = 40;
  }
  else{
    var c = 25;
  }
}

function myClock() {
  document.getElementById("time").innerHTML = --c;
  if (c == 0) {
    clearInterval(myTimer);
    alert("Reached zero. Game Over!!!!");
    location.reload();
  }
}

```

```

    }
}

function Start_Stop(){
    var but= document.getElementById("mixBut");
    if(but.value=="Start"){
        start_game();
        clock();
        but.value="Stop";
        //code
    }
    else{
        clearInterval(myTimer);
        reset_game();
        but.value="Start"
    }
}

```

style.css

```

h1{
    color: blue;
    text-decoration: underline;
    text-align: center;
}

input{
    margin: 20px;
    font-size: 30px;
}

.grid {
    display: flex;
    flex-wrap: wrap;
    width: 400px;
    height: 300px;
}

```

## Output Screenshots:

### Registration form

19:28:19



## Hospital Management System

### New patient Registration

Name

Address

Age

DOB

dd-mm-yyyy

Gender

☐ Male ☐ Female ☐ Others

Marital Status

☐ Married ☐ Unmarried

Contact number

Additions(if any)


Smoking

Drinking

Submit

Reset

19:29:07



## Hospital Management System

### New patient Registration

Name

Address

Age

DOB

11-03-2021

Gender

☒ Male ☐ Female ☐ Others

Marital Status

☒ Married ☐ Unmarried

Contact number

Additions(if any)

Smoking,Drinking

Smoking

Drinking

Submit

Reset



19:30:40

## Hospital Management System

### Patient's Details

Name	Dhoni
Address	Ranchi,India
Age	36
DOB	1984-01-01
Gender	Male
Marital Status	Married
Contact Number	1112223334
Addictions	Smoking,Drinking

## Memory Game:

### Memory Game

Level:1

Score:

Timer:60

Start

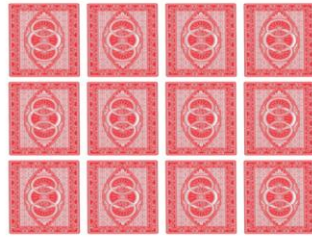


## Memory Game

Level:1

Score:

Timer:55



Stop

---

← → ↻ File | D:/Vishal/Study%20materials%20and%20college/Sem6(current)/IP%20lab/A3/Memory%20game/index.html ☆

This page says  
Sorry, try again

OK

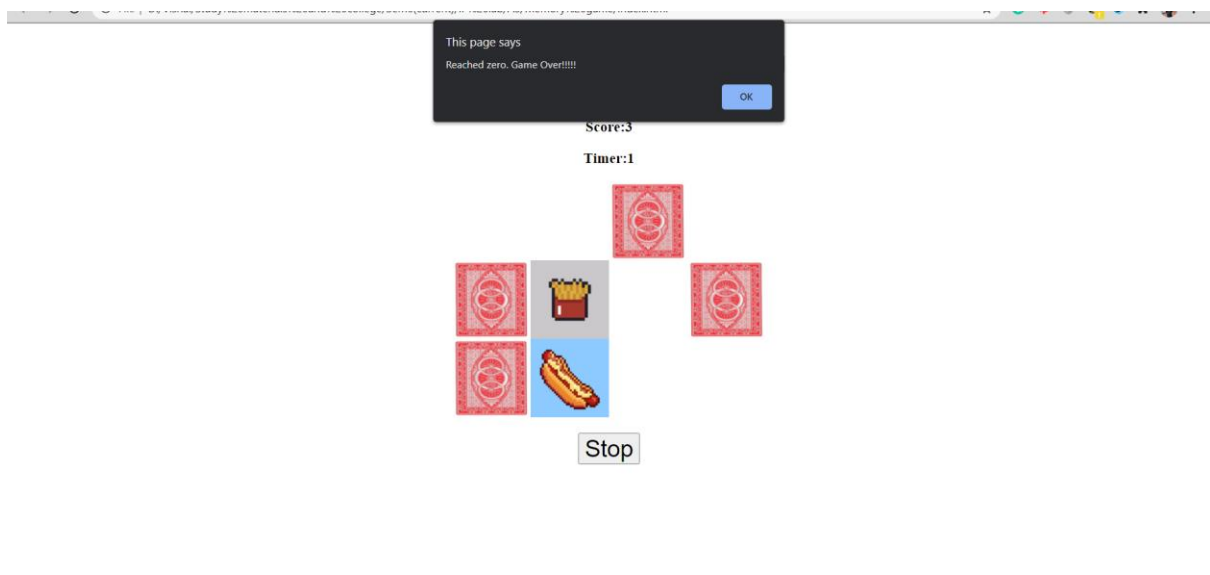
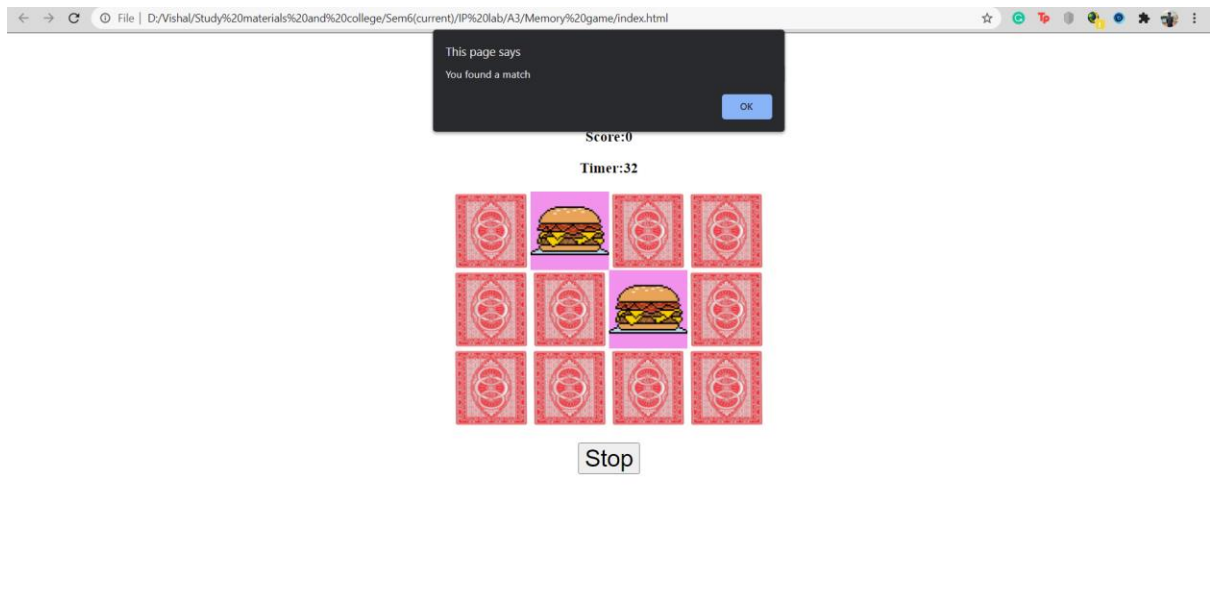
Score:

Timer:35



Stop

---



## **Learning outcomes:**

- Learned to implement basic Javascript.
- Learned to use and implement various Javascript inbuilt functions.
- Learned to create and use user defined functions in Javascript.
- Learned to use Javascript for calculation, manipulation and validation of data.