

WEB PROGRAMMING

ASSIGNMENT – 10

-B Venkatesh (23BCE1012)

1. Assume that you are appointed as Data Analytics Engineer for a hospital. Ages for 8 patients are given below.

P-Id	Name	Age
1	Alen	39
2	Deena	47
3	Diana	21
4	Jack	54
5	Jain	23
6	Kelvin	61
7	Louis	69
8	Rex	49

Write a JavaScript program using appropriate functions to

(i) sort the data in descending order according to the patient's age and display the same

(ii) check whether a particular P-Id is presented in the list

(iii) filter the patients by age range.

CODE

```
<html>
  <head>
  </head>
  <style>
    .box{
      display:flex;
      align-items:center;
      justify-content: center;
      flex-direction:column;
      gap:20px;
    }
    p{
      font-weight: bold;
      font-size:large;
    }
  </style>
  <script>
    let arr = [{"pid":1,"name":"Alen","age":39} ,
      {"pid":2,"name":"Deena","age":47} ,
```

```
{ "pid":3,"name":"Diana","age":21} ,  
{ "pid":4,"name":"Jack","age":54} ,  
{ "pid":5,"name":"Jain","age":23} ,  
{ "pid":6,"name":"Kelvin","age":61} ,  
{ "pid":7,"name":"Louis","age":69} ,  
{ "pid":8,"name":"Rex","age":49}  
];  
  
function dec()  
{  
    arr.sort((a,b)=> b.age - a.age);  
    let result = `Sorted List  
`;   
    arr.forEach(person => {result +=`PID: ${person.pid} |  
Name: ${person.name} | Age: ${person.age}   
` });  
    document.write(result);  
}  
  
function check()  
{  
    var x = prompt("Enter the PID to be checked");  
    let id = arr.find(person => person.pid == x);  
    if(id)  
    {  
        document.write("The ID is present in the array");  
    }  
}
```

```

        }
    else
    {
        document.write("The ID is not present in the
array");
    }
}
function fil()
{
    var low = parseInt(prompt("Enter starting age"));
    var high = parseInt(prompt("Enter ending age"));
    const res = arr.slice().filter(person=>person.age>=low
&& person.age<=high);
    let string = "<b>Filtered List</b><br>";
    res.forEach(person=>{string+=`PID: ${person.pid} |
Name: ${person.name} | Age: ${person.age} <br>` });
    document.write(string);
}
</script>
<body>
    <div class="box"><p>Click the button below to sort the
array in descending order based on age</p>
    <button onclick = dec()>Descending order</button><br>

```

<p>Click the button to check whether a particular PID is present</p>

<button onclick = check()>Check for PID</button>

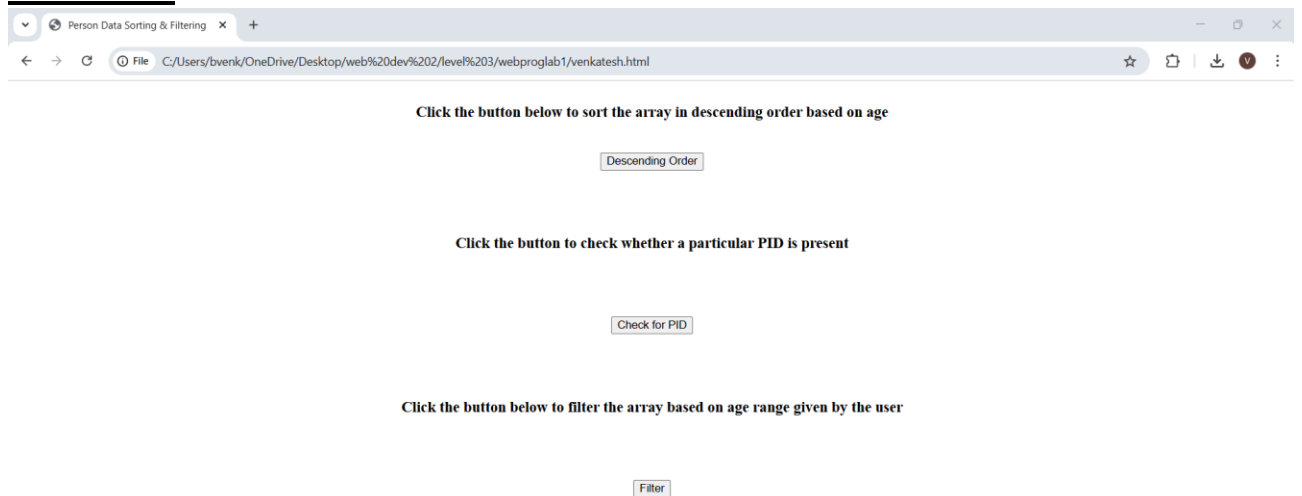
<p>Click the button below to filter the array based on age range given by user</p>

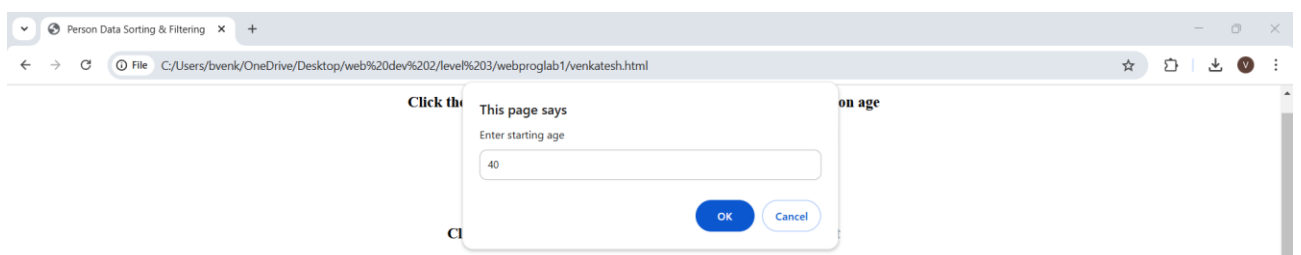
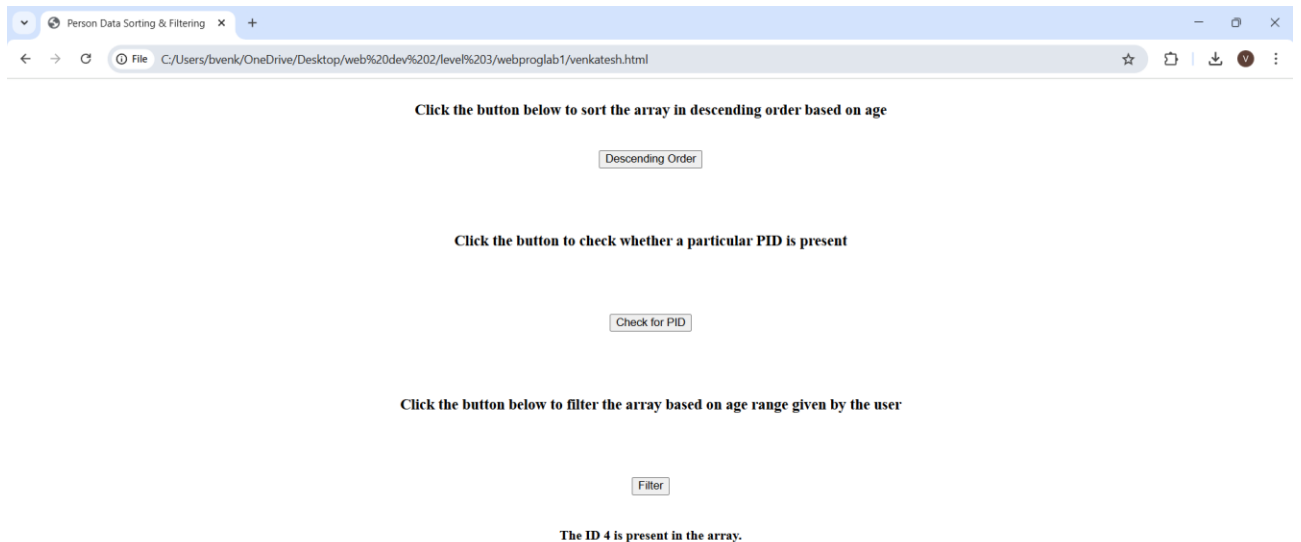
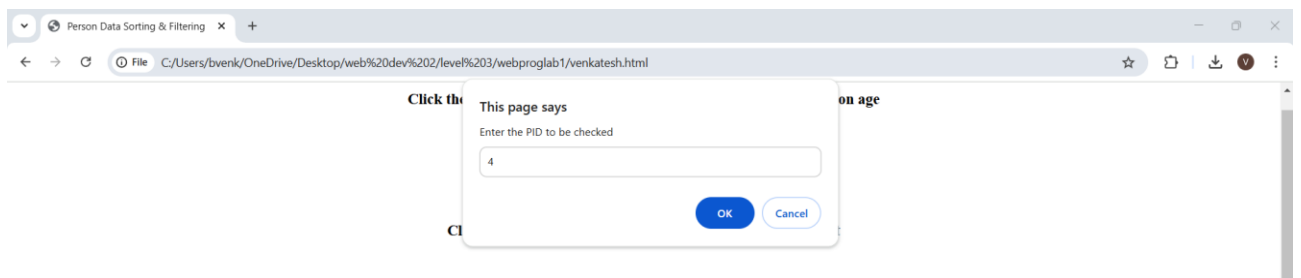
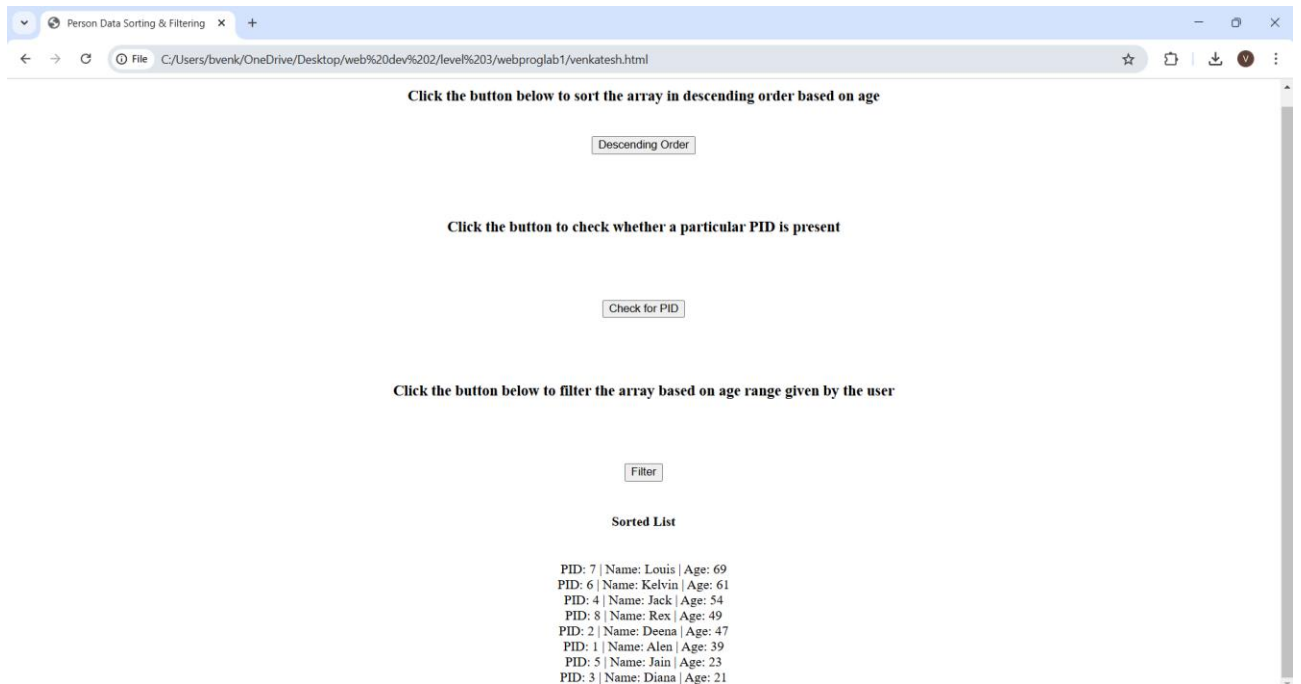
<button onclick = fil()>Filter</button>
</div>

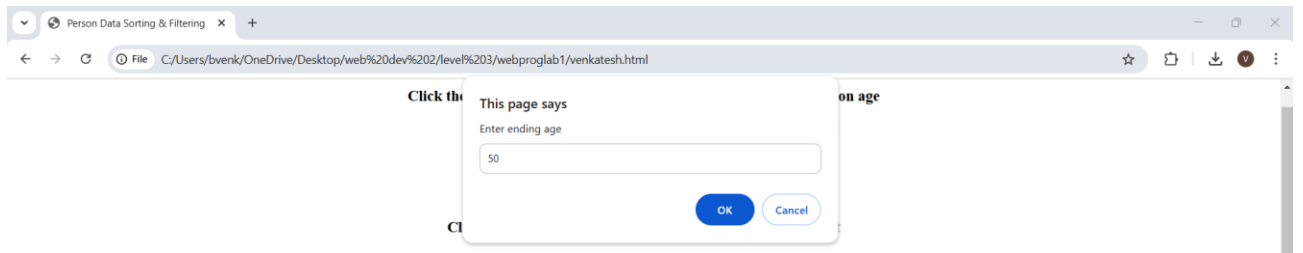
</body>

</html>

OUTPUT







Click the button below to sort the array in descending order based on age

Descending Order

Click the button to check whether a particular PID is present

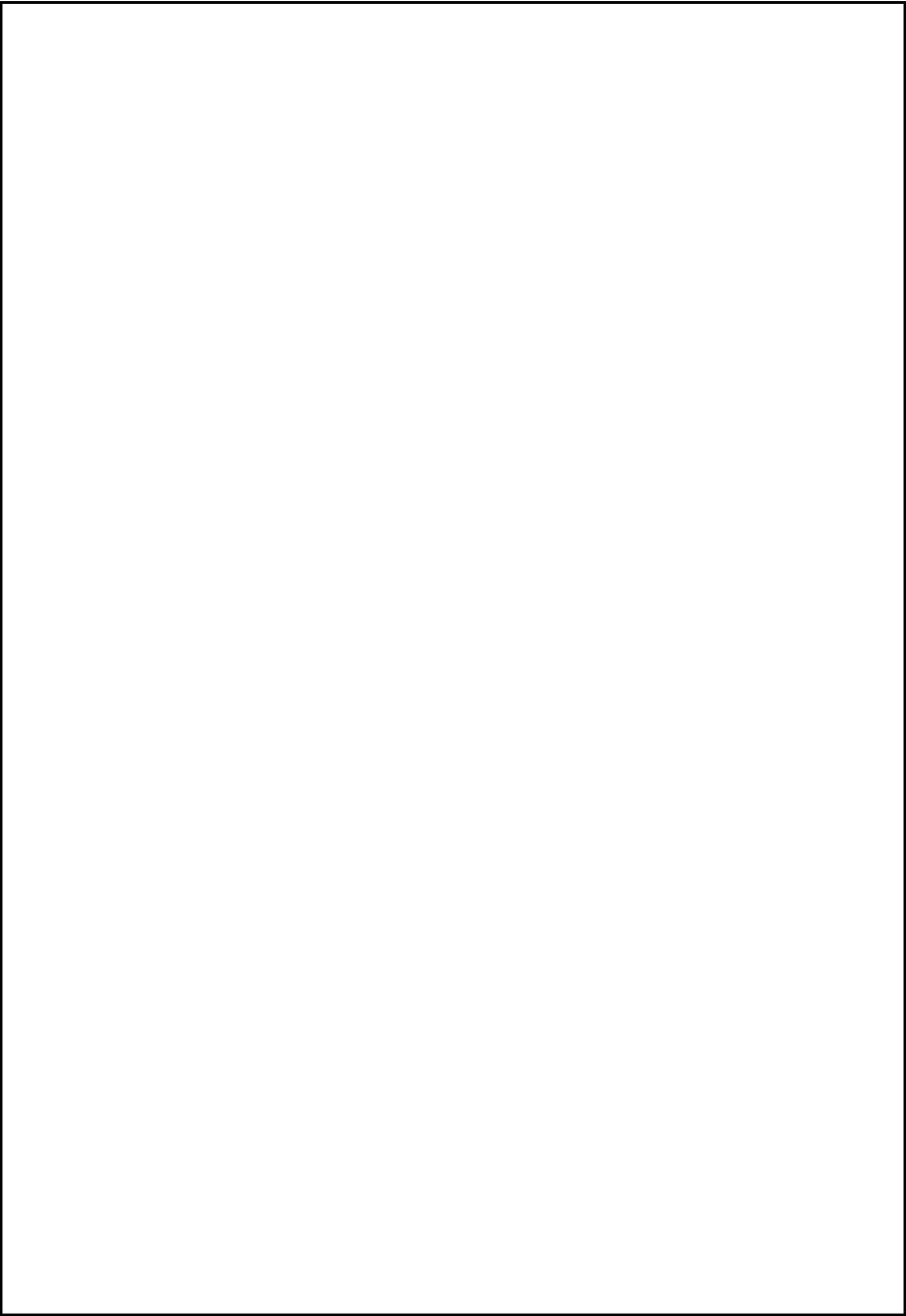
Check for PID

Click the button below to filter the array based on age range given by the user

Filter

Filtered List

PID: 8 | Name: Rex | Age: 49
PID: 2 | Name: Deena | Age: 47



2) Write a JavaScript program that performs the following actions using **different DOM selection methods**:

(a) **Using getElementById**: Select the <h1> element and change its text to "Updated Title".

(b) **Using getElementsByName**: Select the input field with the name="username" and set its value to "John Doe".

Select all radio buttons with the name gender and print the value of the selected radio button.

(c) **Using getElementsByTagName**: Count and print the total number of <p> elements on the page.

Select all elements inside the and print their text content to the console.

(d) **Using getElementsByClassName**: Change the background color of all elements with the class input-field to lightblue.

(e) **Using querySelector**: Select the first <p> element with the class info and update its text to "This is the first info paragraph".

Select the first radio button with the name gender and check it programmatically.

(f) **Using querySelectorAll**: Select all <p> elements with the class info, loop through them, and print their text content.

Select all checkboxes with the class hobby, loop through them, set them as checked and print the checked values.

CODE

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-
scale=1.0">

  <title>DOM Selection Example</title>

  <style>

    .input-field {

      margin: 5px;

      padding: 5px;

      border: 1px solid #ccc;

    }

    .info {

      font-weight: bold;

      color: darkblue;

    }

  </style>

</head>

<body>

  <h1 id="title">Original Title</h1>
```

<label for="username">Username:</label>

<input type="text" name="username" class="input-field">

<p>Gender:</p>

<input type="radio" name="gender" value="Male"> Male

<input type="radio" name="gender" value="Female"> Female

<input type="radio" name="gender" value="Other"> Other

<p>Total Paragraphs:</p>

<div>

 <p>Paragraph 1 inside div</p>

 <p>Paragraph 2 inside div</p>

</div>

<p class="info">Info paragraph 1</p>

<p class="info">Info paragraph 2</p>

<p>Select your hobbies:</p>

 <input type="checkbox" class="hobby" value="Reading">
Reading

 <input type="checkbox" class="hobby" value="Gaming">
Gaming

 <input type="checkbox" class="hobby" value="Traveling">
Traveling

```
<button onclick="performDOMOperations()">Run  
JavaScript</button>
```

```
<script>
```

```
function performDOMOperations() {  
    // (a) Using getElementById  
    document.getElementById("title").innerText = "Updated  
Title";
```

```
    // (b) Using getElementsByName  
    let usernameInput =  
document.getElementsByName("username")[0];  
    usernameInput.value = "John Doe";  
  
    let genderRadios =  
document.getElementsByName("gender");  
    for (let radio of genderRadios) {  
        if (radio.checked) {  
            console.log("Selected Gender:", radio.value);  
        }  
    }  
}
```

```
    // (c) Using getElementsByTagName  
    let totalParagraphs =  
document.getElementsByTagName("p").length;
```

```
console.log("Total <p> elements:", totalParagraphs);
```

```
let divParagraphs =  
document.querySelector("div").getElementsByTagName("p");  
for (let para of divParagraphs) {  
    console.log("Div Paragraph:", para.textContent);  
}
```

```
// (d) Using getElementsByClassName
```

```
let inputFields =  
document.getElementsByClassName("input-field");  
for (let field of inputFields) {  
    field.style.backgroundColor = "lightblue";  
}
```

```
// (e) Using querySelector
```

```
let firstInfoPara = document.querySelector(".info");  
firstInfoPara.innerText = "This is the first info paragraph";
```

```
let firstGenderRadio =  
document.querySelector("input[name='gender']");  
firstGenderRadio.checked = true;
```

```
// (f) Using querySelectorAll
```

```
let allInfoParagraphs = document.querySelectorAll(".info");
```

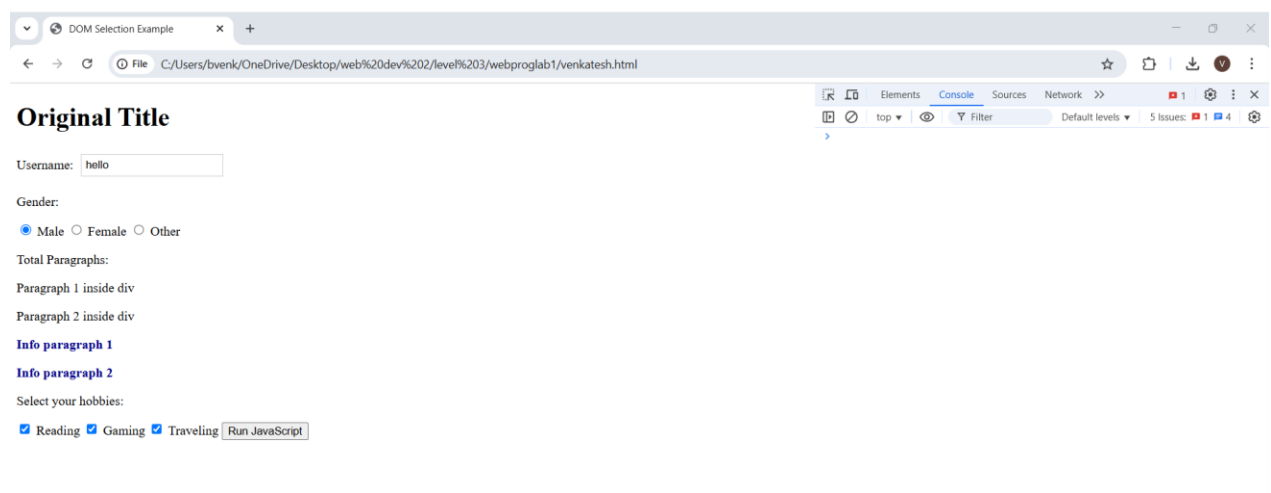
```
allInfoParagraphs.forEach(para => console.log("Info  
Paragraph:", para.textContent));
```

```
let checkboxes = document.querySelectorAll(".hobby");  
checkboxes.forEach(checkbox => {  
    checkbox.checked = true;  
    console.log("Checked Hobby:", checkbox.value);  
});  
}  
</script>
```

```
</body>
```

```
</html>
```

OUTPUT



DOM Selection Example

C:/Users/bvenk/OneDrive/Desktop/web%20dev%202/level%203/webproglab1/venkatesh.html

Updated Title

Username: John Doe

Gender:

☒ Male ☐ Female ☐ Other

Total Paragraphs:

Paragraph 1 inside div

Paragraph 2 inside div

This is the first info paragraph

Info paragraph 2

Select your hobbies:

☒ Reading ☒ Gaming ☒ Traveling

Elements Console Sources Network Performance >> ⚙️ ⋮ ✕

top Filter Default levels No issues ⚙️

Selected Gender: Male venkatesh.html:59

Total <p> elements: 7 venkatesh.html:65

Div Paragraph: Paragraph 1 inside div venkatesh.html:69

Div Paragraph: Paragraph 2 inside div venkatesh.html:69

Info Paragraph: This is the first info paragraph venkatesh.html:87

Info Paragraph: Info paragraph 2 venkatesh.html:87

Checked Hobby: Reading venkatesh.html:92

Checked Hobby: Gaming venkatesh.html:92

Checked Hobby: Traveling venkatesh.html:92

DOM Selection Example

C:/Users/bvenk/OneDrive/Desktop/web%20dev%202/level%203/webproglab1/venkatesh.html

Updated Title

Username: John Doe

Gender:

☒ Male ☐ Female ☐ Other

Total Paragraphs:

Paragraph 1 inside div

Paragraph 2 inside div

This is the first info paragraph

Info paragraph 2

Select your hobbies:

☒ Reading ☒ Gaming ☒ Traveling

Elements Console Sources Network Performance >> ⚙️ ⋮ ✕

top Filter Default levels No issues ⚙️

Selected Gender: Male venkatesh.html:59

Total <p> elements: 7 venkatesh.html:65

Div Paragraph: Paragraph 1 inside div venkatesh.html:69

Div Paragraph: Paragraph 2 inside div venkatesh.html:69

Info Paragraph: This is the first info paragraph venkatesh.html:87

Info Paragraph: Info paragraph 2 venkatesh.html:87

Checked Hobby: Reading venkatesh.html:92

Checked Hobby: Gaming venkatesh.html:92

Checked Hobby: Traveling venkatesh.html:92

3) Design an order form as below and implement a JavaScript program to pass the entries to another page and display the receipt.

CODE

GROCERY HTML

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <meta name="viewport" content="width=device-width,  
initial-scale=1.0">
```

```
  <title>Grocery Order Form</title>
```

```
  <style>
```

```
    body { font-family: Arial, sans-serif; background-color:  
#d1d5b3; text-align: center; }
```

```
    .container { width: 400px; margin: auto; background:  
#8a9365; padding: 20px; border-radius: 10px; }
```

```
    h2 { text-align: center; font-weight: bold; color: black; }
```

```
    .form-group { display: flex; flex-wrap: wrap; justify-  
content: space-between; margin-bottom: 10px; }
```

```
    .form-group label { width: 100%; text-align: left; font-  
weight: bold; }
```

```
    .form-group input { width: 48%; padding: 8px; border-  
radius: 5px; border: none; }
```



```
.products { text-align: left; }

.product-item { display: flex; align-items: center; justify-
content: space-between; margin-bottom: 10px; }

.product-item img { width: 40px; height: 40px; border-
radius: 50%; }

.product-info { flex-grow: 1; padding-left: 10px; }

.product-item input[type="number"] { width: 50px;
padding: 5px; border-radius: 5px; border: none; text-align:
center; }

button { background-color: #a67c52; color: white;
padding: 10px; border-radius: 5px; border: none; cursor:
pointer; width: 100%; font-weight: bold; }
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div class="container">
```

```
<h2>Grocery Order Form</h2>
```

```
<div class="form-group">
```

```
<label>Customer Name</label>
```

```
<input type="text" id="first-name">
```

```
</div>
```

```
<div class="form-group">
  <label>Phone Number</label>
  <input type="text" id="phone">
</div>
```

```
<div class="form-group">
  <label>Email</label>
  <input type="email" id="email" >
</div>
```

```
<h3>Products</h3>
```

```
<div class="products">
  <div class="product-item">
    
    <input type="checkbox" class="product"
value="Apple" data-price="10">
    <div class="product-info">
      <label>Apple - $10/kg</label>
    </div>
```

```
        <input type="number" class="quantity" min="1"
max="10" value="1"> kg
```

```
    </div>
```

```
    <div class="product-item">
```

```
        
```

```
        <input type="checkbox" class="product"
value="Banana" data-price="5">
```

```
        <div class="product-info">
```

```
            <label>Banana - $5/kg</label>
```

```
        </div>
```

```
        <input type="number" class="quantity" min="1"
max="10" value="1"> kg
```

```
    </div>
```

```
    <div class="product-item">
```

```
        
```

```
        <input type="checkbox" class="product"
value="Avocado" data-price="7">
```

```
        <div class="product-info">
```

```
        <label>Avocado - $7/kg</label>
    </div>
    <input type="number" class="quantity" min="1"
max="10" value="1"> kg
    </div>
</div>

<button onclick="submitOrder()">SUBMIT</button>
</div>

<script>
    function submitOrder() {
        let firstName = document.getElementById("first-
name").value;
        let phone = document.getElementById("phone").value;
        let email = document.getElementById("email").value;

        let selectedProducts = [];
        let products = document.querySelectorAll(".product");
        let quantities =
document.querySelectorAll(".quantity");

        products.forEach((product, index) => {
```

```
        if (product.checked) {
            selectedProducts.push({
                name: product.value,
                price: product.getAttribute("data-price"),
                quantity: quantities[index].value
            });
        }
    });

    let orderDetails = {
        firstName, phone, email, selectedProducts
    };

    localStorage.setItem("order",
JSON.stringify(orderDetails));

    window.location.href = "receipt.html";
}
</script>

</body>
</html>
```

RECEIPT HTML

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <meta name="viewport" content="width=device-width,  
initial-scale=1.0">
```

```
  <title>Receipt</title>
```

```
  <style>
```

```
    body { font-family: Arial, sans-serif; background-color:  
#d1d5b3; text-align: center; }
```

```
    .container { width: 400px; margin: auto; background:  
#8a9365; padding: 20px; border-radius: 10px; }
```

```
    h2 { color: black; }
```

```
    table { width: 100%; border-collapse: collapse; margin-  
top: 10px; }
```

```
    table, th, td { border: 1px solid black; padding: 8px; }
```

```
    th { background: #a67c52; color: white; }
```

```
  </style>
```

```
</head>
```

```
<body>
```

```
<div class="container">
  <h2>Order Receipt</h2>
  <p><strong>Customer Name:</strong> <span
id="customer-name"></span></p>
  <p><strong>Phone:</strong> <span
id="phone"></span></p>
  <p><strong>Email:</strong> <span
id="email"></span></p>

  <h3>Ordered Products</h3>
  <table>
    <tr>
      <th>Product</th>
      <th>Price</th>
      <th>Quantity</th>
      <th>Total</th>
    </tr>
    <tbody id="order-items"></tbody>
  </table>

  <h3>Total Cost: $<span id="total-cost"></span></h3>
</div>
```

```
<script>
```

```
    let order = JSON.parse(localStorage.getItem("order"));
```

```
    if (order) {
```

```
        document.getElementById("customer-  
name").textContent = order.firstName + " " + order.lastName;
```

```
        document.getElementById("phone").textContent =  
order.phone;
```

```
        document.getElementById("email").textContent =  
order.email;
```

```
    let totalCost = 0;
```

```
    let orderItems = document.getElementById("order-  
items");
```

```
    order.selectedProducts.forEach(item => {
```

```
        let row = `<tr>
```

```
            <td>${item.name}</td>
```

```
            <td>${item.price}</td>
```

```
            <td>${item.quantity} kg</td>
```

```
            <td>${item.price * item.quantity}</td>
```

```
        </tr>`;
```

```
        orderItems.innerHTML += row;
```



```
        totalCost += item.price * item.quantity;

    });

    document.getElementById("total-cost").textContent =
totalCost;

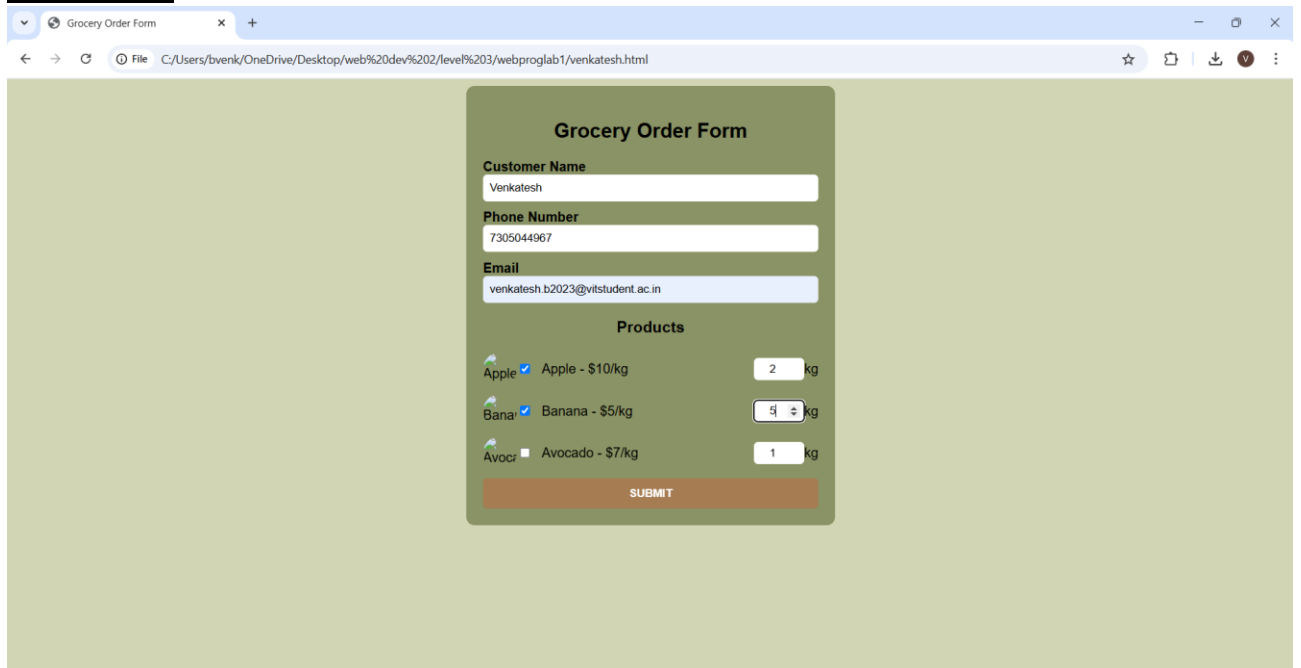
    }

</script>

</body>

</html>
```

OUTPUT



The screenshot shows a web browser window with the title 'Grocery Order Form'. The address bar shows the file path: 'C:/Users/bvenk/OneDrive/Desktop/web%20dev%202/level%203/webproglab1/venkatesh.html'. The form itself is centered on a light green background and has a title 'Grocery Order Form'. It contains three input fields for 'Customer Name' (filled with 'Venkatesh'), 'Phone Number' (filled with '7305044967'), and 'Email' (filled with 'venkatesh.b2023@vitstudent.ac.in'). Below these is a section titled 'Products' with three items: 'Apple - \$10/kg' with a quantity of '2', 'Banana - \$5/kg' with a quantity of '4', and 'Avocado - \$7/kg' with a quantity of '1'. Each item has a small icon and a checkbox. At the bottom of the form is a brown 'SUBMIT' button.

Grocery Order Form		
Customer Name		
<input type="text" value="Venkatesh"/>		
Phone Number		
<input type="text" value="7305044967"/>		
Email		
<input type="text" value="venkatesh.b2023@vitstudent.ac.in"/>		
Products		
<input checked="" type="checkbox"/> Apple	Apple - \$10/kg	<input type="text" value="2"/> kg
<input checked="" type="checkbox"/> Banana	Banana - \$5/kg	<input type="text" value="4"/> kg
<input type="checkbox"/> Avocado	Avocado - \$7/kg	<input type="text" value="1"/> kg
<input type="button" value="SUBMIT"/>		

