Vishwakarma Institute of Technology, Pune-37

(An autonomous Institute of Savitribai Phule Pune University)

Department of Computer Engineering

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Division	CS-D
Subject	Web Technologies

Problem Statement: Design and develop a website to demonstrate (a) searching and sorting array for integer elements using JavaScript (b) array for named entities using JavaScript. You can make the use of bootstrap as well as jQuery.

Code:

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

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Array Operations</title>
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">


    <style>
        .container {
            display: flex;
            flex-direction: row;
            justify-content: space-between;
            margin-top: 30px;
        }
    </style>
</head>

<body>

    <h2 style="text-align: center; margin-bottom: 50px; margin-top: 30px">Assignment 3: Dynamic Operations
Using Js On Arrays</h2>

    <div class="container">

        <div class="secone">
            <hr>
            <h4 class="seconetitle">Integer Array Search And Sort Ops</h4>
            <label for="integerArray">Enter integers separated by comma: </label>
            <input type="text" id="integerArray" class="form-control mb-2">
            <hr>
            <div style="display: flex; flex-direction: row; justify-content: space-between; align-items: center">
                <button class="buttonSort" onclick="performIntegerSorting()">Sort Array</button>
                <button class="buttonSearch" onclick="performIntegerSearching()">Search Value</button>
                <button class="clearButton" onclick="clearIntArray()">Clear Section</button>
            </div>
            <hr>
            <div id="integerResult" class="seconeres"></div>
        </div>

        <div style="border-left:1px solid #000;height:250px"></div>

        <div class="sectwo">
```

```html
        <hr>
        <h4 class="sectwotitle">Named Entity (String) Array Search</h4>
        <label for="entityArray">Enter named entities separated by comma: </label>
        <input type="text" id="entityArray" class="form-control mb-2">
        <hr>
        <div style="display: flex; flex-direction: row; justify-content: space-between; align-items: center">
            <button class="buttonSearch" onclick="performEntitySearching()">Search Entity</button>
            <button class="clearButton" onclick="clearStrArray()">Clear Section</button>
        </div>
        <hr>
        <div id="entityResult" class="sectwores"></div>
    </div>
</div>

<script>
    function performIntegerSorting() {
        const inputArray = document.getElementById('integerArray').value.split(',').map(Number);

        for (let i = 0; i < inputArray.length - 1; i++) {
            for (let j = 0; j < inputArray.length - i - 1; j++) {
                if (inputArray[j] > inputArray[j + 1]) {
                    const temp = inputArray[j];
                    inputArray[j] = inputArray[j + 1];
                    inputArray[j + 1] = temp;
                }
            }
        }

        document.getElementById('integerResult').innerHTML = `
        <p>Sorted Array: [${inputArray.join(', ')}]</p>
`;
    }

    function performIntegerSearching() {
        const inputArray = document.getElementById('integerArray').value.split(',').map(Number);

        const searchValue = parseInt(prompt("Enter the integer to search:"));
        const foundIndex = inputArray.indexOf(searchValue);

        document.getElementById('integerResult').innerHTML = `
        <p>Index of ${searchValue}: ${foundIndex !== -1 ? foundIndex : 'Not found'}</p>
`;
    }

    function performEntitySearching() {
        const inputArray = document.getElementById('entityArray').value.split(',');

        const searchEntity = prompt("Enter the entity to search:");
        const foundIndex = inputArray.indexOf(searchEntity);

        document.getElementById('entityResult').innerHTML = `
```

```
                <p>Index of ${searchEntity}: ${foundIndex !== -1 ? foundIndex : 'Not found'}</p>
            `;
        }

        function clearIntArray(){
            document.getElementById('integerArray').value = '';
            document.getElementById('integerResult').innerHTML = '';
        }

        function clearStrArray(){
            document.getElementById('entityArray').value = '';
            document.getElementById('entityResult').innerHTML = '';
        }
    </script>

</body>

</html>
```
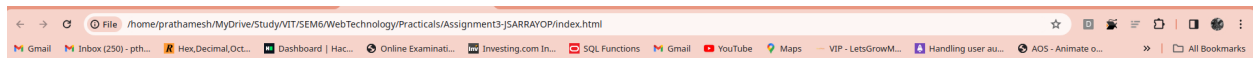
Output:

Assignment 3: Dynamic Operations Using Js On Arrays

Integer Array Search And Sort Ops
Enter integers separated by comma:

Sort Array   Search Value   Clear Section

Named Entity (String) Array Search
Enter named entities separated by comma:

Search Entity   Clear Section

Assignment 3: Dynamic Operations Using Js On Arrays

Integer Array Search And Sort Ops
Enter integers separated by comma:
2,1,0,4,5,10,8

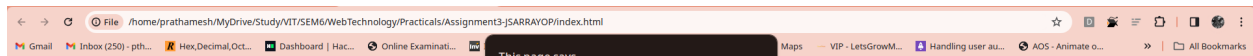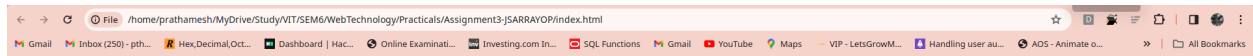Sort Array   Search Value   Clear Section

Sorted Array: [0, 1, 2, 4, 5, 8, 10]

Named Entity (String) Array Search
Enter named entities separated by comma:

Search Entity   Clear Section

Assignment 3: Dynamic Operations Using Js On Arrays

This page says
Enter the integer to search:
10

Cancel   OK

Integer Array Search And Sort Ops
Enter integers separated by comma:
2,1,0,4,5,10,8

Sort Array   Search Value   Clear Section

Sorted Array: [0, 1, 2, 4, 5, 8, 10]

Named Entity (String) Array Search
Enter named entities separated by comma:

Search Entity   Clear Section

Assignment 3: Dynamic Operations Using Js On Arrays

Integer Array Search And Sort Ops

Enter integers separated by comma:

2,1,0,4,5,10,8

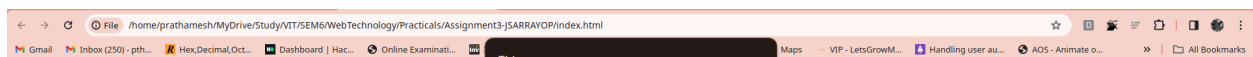Sort Array   Search Value   Clear Section

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Named Entity (String) Array Search

Enter named entities separated by comma:

Search Entity   Clear Section

This page says

Enter the entity to search:

viit

Cancel   OK

Assignment   s On Arrays

Integer Array Search And Sort Ops

Enter integers separated by comma:

Sort Array   Search Value   Clear Section

Named Entity (String) Array Search

Enter named entities separated by comma:

vit,viit,vu

Search Entity   Clear Section

Assignment 3: Dynamic Operations Using Js On Arrays

Integer Array Search And Sort Ops

Enter integers separated by comma:

Sort Array   Search Value   Clear Section

Named Entity (String) Array Search

Enter named entities separated by comma:

vit,viit,vu

Search Entity   Clear Section

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