# Lab Practice -2 [404184C] : ELECTIVE-III(C) - JavaScript

## ACADEMIC YEAR: 2024-25

| CLASS | : BE | DIV | : 6 | Batch | : P6 | DATE | : / /24 |
|---|---|---|---|---|---|---|---|
| Roll No | 42130 | ABC ID | : | | | SEMESTER | : I |

**Experiment No.:**

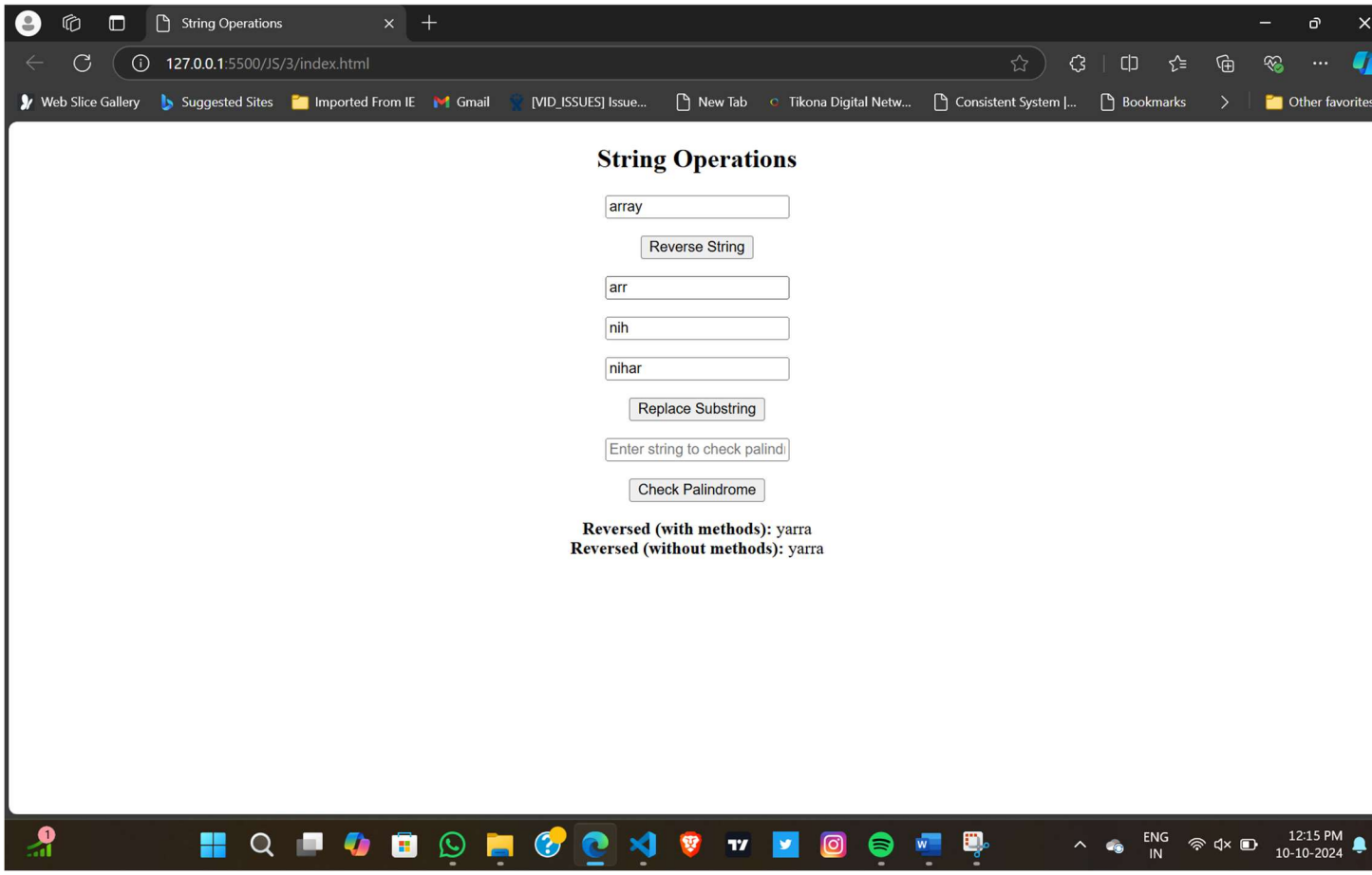
## Code:

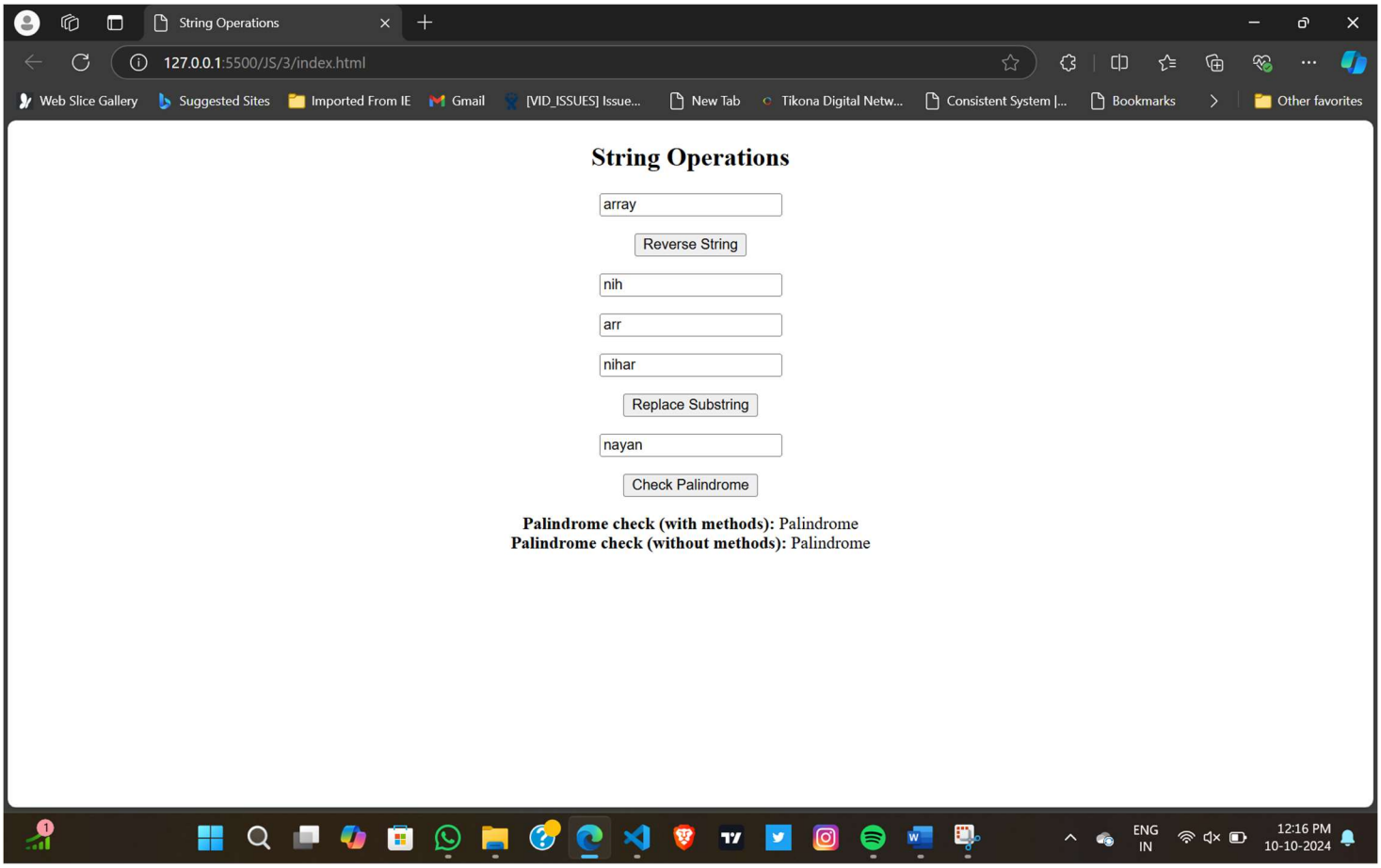
```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>String Operations</title>
</head>

<body style="text-align: center">

    <div class="container">
        <h2>String Operations</h2>

        <input type="text" id="inputString" placeholder="Enter string to reverse">
        <p></p>
        <button onclick="reverseString()">Reverse String</button>
        <p></p>
        <input type="text" id="replaceInputString" placeholder="Enter string for substring replacement">
        <p></p>

        <input type="text" id="substring" placeholder="Substring to replace">
        <p></p>
        <input type="text" id="newSubstring" placeholder="New substring">
        <p></p>
        <button onclick="replaceSubstring()">Replace Substring</button>
        <p></p>

        <input type="text" id="palindromeInput" placeholder="Enter string to check palindrome">
        <p></p>
        <button onclick="checkPalindrome()">Check Palindrome</button>
        <p></p>

        <div class="result" id="result"></div>
    </div>

    <script>
        function reverseString() {
            const inputStr = document.getElementById('inputString').value;
```

```
    let reversedStr = inputStr.split('').reverse().join('');

    let reversedStrWithoutMethods = '';
    for (let i = inputStr.length - 1; i >= 0; i--) {
        reversedStrWithoutMethods += inputStr[i];
    }

    document.getElementById('result').innerHTML = `
    <strong>Reversed (with methods):</strong> ${reversedStr}<br>
    <strong>Reversed (without methods):</strong> ${reversedStrWithoutMethods}
`;
}

function replaceSubstring() {
    const inputStr = document.getElementById('replaceInputString').value;
    const substring = document.getElementById('substring').value;
    const newSubstring = document.getElementById('newSubstring').value;

    let replacedStr = inputStr.replace(new RegExp(substring, 'g'), newSubstring);

    let replacedStrWithoutMethods = '';
    for (let i = 0; i < inputStr.length; i++) {
        let match = true;
        for (let j = 0; j < substring.length; j++) {
            if (inputStr[i + j] !== substring[j]) {
                match = false;
                break;
            }
        }
        if (match) {
            replacedStrWithoutMethods += newSubstring;
            i += substring.length - 1;
        } else {
            replacedStrWithoutMethods += inputStr[i];
        }
    }

    document.getElementById('result').innerHTML = `
    <strong>Replaced (with methods):</strong> ${replacedStr}<br>
    <strong>Replaced (without methods):</strong> ${replacedStrWithoutMethods}
`;
}

function checkPalindrome() {
    const inputStr = document.getElementById('palindromeInput').value;

    const reversedStr = inputStr.split('').reverse().join('');
    const isPalindrome = inputStr === reversedStr;

    let isPalindromeWithoutMethods = true;
    for (let i = 0; i < inputStr.length / 2; i++) {
        if (inputStr[i] !== inputStr[inputStr.length - 1 - i]) {
            isPalindromeWithoutMethods = false;
            break;
        }
```

```
        }

        document.getElementById('result').innerHTML = `
        <strong>Palindrome check (with methods):</strong> ${isPalindrome ? 'Palindrome' : 'Not a palindrome'}<br>
        <strong>Palindrome check (without methods):</strong> ${isPalindromeWithoutMethods ? 'Palindrome' : 'Not a palindrome'}
        `;
        }
    </script>

</body>

</html>
```

# Output:


String Operations
127.0.0.1:5500/JS/3/index.html
Web Slice Gallery
Suggested Sites
Imported From IE
Gmail
[VID_ISSUES] Issue...
New Tab
Tikona Digital Netw...
Consistent System |...
Bookmarks
Other favorites
String Operations
array
Reverse String
arr
nih
nihar
Replace Substring
Enter string to check palindi
Check Palindrome
Reversed (with methods): yarra
Reversed (without methods): yarra
ENG
IN
12:15 PM
10-10-2024




Date: Course Teacher Sign