

#### SCTR's PUNE INSTITUTE OF COMPUTER TECHNOLOGY, PUNE - 411043

#### DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING

Lab Practice -2 [404184C] : ELECTIVE-III(C) - JavaScript							
ACADEMIC YEAR: 2024-25							
CLASS	: BE	DIV	:7	Batch	: R-7	DATE	:
Roll No	42315	ABC ID	: 187-311-403-781			SEMESTER	: I

## **Experiment No.: 3**

## HTML →

```
<!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>
 <link rel="stylesheet" href="style_3.css">
</head>
<body>
 <div class="container">
  <h1>String Operations</h1>
  <label for="stringInput">Enter a string:</label>
  <input type="text" id="stringInput" placeholder="Enter a string">
  <label for="replaceChar">Character to replace:</label>
  <input type="text" id="replaceChar" placeholder="Character to replace">
  <label for="replaceWith">Replace with:</label>
  <input type="text" id="replaceWith" placeholder="New character">
  <button onclick="reverseString()">Reverse String</button>
  <button onclick="replaceCharacter()">Replace Character</button>
```

```
<br>><br>>
  <label for="palindromeInput">Enter a string to check Palindrome:</label>
  <input type="text" id="palindromeInput" placeholder="Check if Palindrome">
  <button onclick="checkPalindrome()">Check Palindrome</button>
  <br>><br>>
  <label for="substringInput">Enter substring to replace:</label>
  <input type="text" id="substringInput" placeholder="Substring to replace">
  <label for="replaceWithSubstring">Replace with:</label>
  <input type="text" id="replaceWithSubstring" placeholder="New substring">
  <button onclick="replaceSubstring()">Replace Substring</button>
  <div id="resultOutput"></div>
  <div class="info">
   <h2>Name: Tanmay Deo</h2>
   <h3>Roll Number: 42315</h3>
  </div>
 </div>
 <script src="script_3.js"></script>
</body>
</html>
```

## CSS →

```
body {
 font-family: Arial, sans-serif;
 background-color: #f0f0f0;
 display: flex;
 justify-content: center;
 align-items: center;
 height: 100vh;
 margin: 0;
.container {
 background-color: white;
 padding: 20px;
 border-radius: 8px;
 box-shadow: 0px 4px 8px rgba(0, 0, 0, 0.1);
 text-align: center;
}
input {
 display: block;
 margin: 10px auto;
 padding: 10px;
 border: 1px solid #ccc;
 border-radius: 4px;
 width: 80%;
}
button {
 padding: 10px 20px;
 margin-top: 10px;
```

```
background-color: #4caf50;
 color: white;
 border: none;
 border-radius: 4px;
 cursor: pointer;
button:hover {
 background-color: #45a049;
}
h1 {
color: #333;
#resultOutput {
 margin-top: 20px;
 background-color: #e0f7fa;
 padding: 10px;
 border-radius: 4px;
 color: #333;
```

## JavaScript →

```
// Function to reverse a string
function reverseString() {
 let str = document.getElementById("stringInput").value;
 // Using standard method
 let reversed = str.split("").reverse().join("");
 // Display result
 document.getElementById(
  "resultOutput"
 ).innerHTML = `Reversed String: ${reversed}`;
 /* Manual logic for reversing a string
 let reversed = ";
 for (let i = \text{str.length} - 1; i >= 0; i--) {
   reversed += str[i];
// Function to replace characters in a string
function replaceCharacter() {
 let str = document.getElementById("stringInput").value;
 let charToReplace = document.getElementById("replaceChar").value;
 let replaceWith = document.getElementById("replaceWith").value;
 // Using standard method
 let replaced = str.split(charToReplace).join(replaceWith);
 document.getElementById(
  "resultOutput"
 ).innerHTML = `Replaced String: ${replaced}`;
```

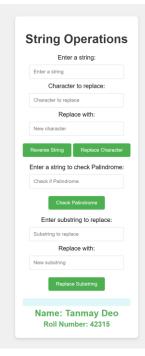
```
/* Manual logic for replacing characters
 let replaced = ";
 for (let i = 0; i < str.length; i++) {
   if (str[i] === charToReplace) {
      replaced += replaceWith;
   } else {
      replaced += str[i];
   }
 */
// Function to check if a string is a palindrome
function checkPalindrome() {
 let str = document.getElementById("palindromeInput").value;
 let originalStr = str.replace(\s/g, "").toLowerCase();
 let reversedStr = originalStr.split("").reverse().join("");
 // Check palindrome using standard method
 if (originalStr === reversedStr) {
  document.getElementById(
   "resultOutput"
  ).innerHTML = `The string "${str}" is a palindrome.`;
 } else {
  document.getElementById(
   "resultOutput"
  ).innerHTML = `The string "${str}" is not a palindrome.`;
```

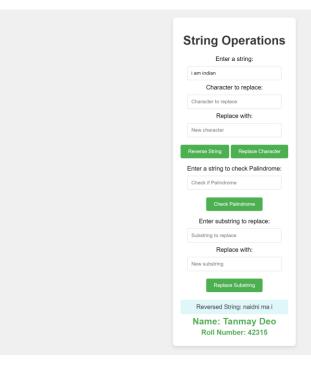
```
/* Manual logic for checking palindrome
 let isPalindrome = true;
 for (let i = 0; i < originalStr.length / 2; <math>i++) {
   if (originalStr[i] !== originalStr[originalStr.length - 1 - i]) {
      isPalindrome = false;
      break;
   }
 if (isPalindrome) {
   document.getElementById("resultOutput").innerHTML = `The string "${str}" is a
palindrome.\;
 } else {
   document.getElementById("resultOutput").innerHTML = `The string "${str}" is not a
palindrome.\;
// Function to replace a substring in a string
function replaceSubstring() {
 let str = document.getElementById("stringInput").value;
 let substringToReplace = document.getElementById("substringInput").value;
 let replaceWith = document.getElementById("replaceWithSubstring").value;
 let replacedStr = str.replace(substringToReplace, replaceWith);
 document.getElementById(
  "resultOutput"
 ).innerHTML = `String after substring replacement: ${replacedStr}`;
```

```
/* Manual logic for replacing a substring
let replacedStr = ";
let i = 0;
while (i < str.length) {
    if (str.substr(i, substringToReplace.length) === substringToReplace) {
        replacedStr += replaceWith;
        i += substringToReplace.length;
    } else {
        replacedStr += str[i];
        i++;
    }
}
*/</pre>
```

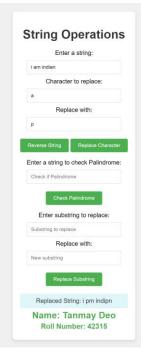
# Output 🗲

1. Reversing a String

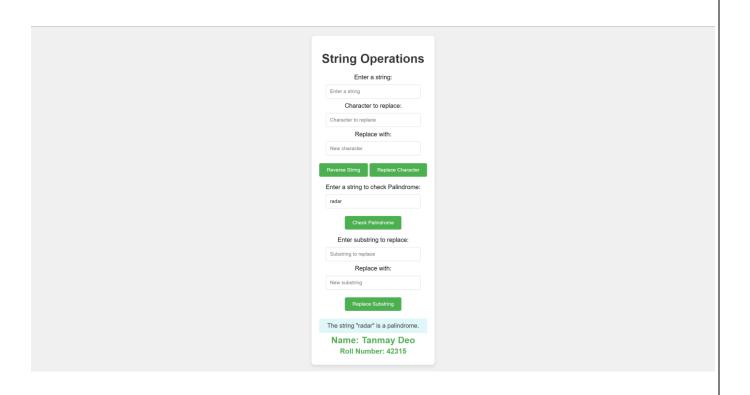


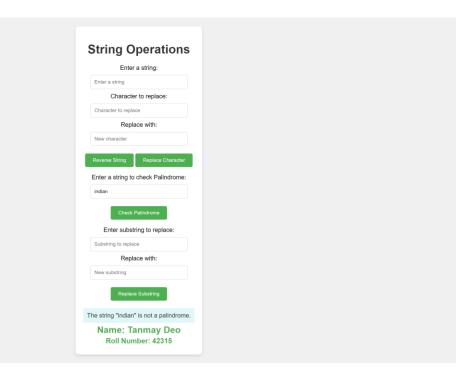


## 2. Replacing characters of String

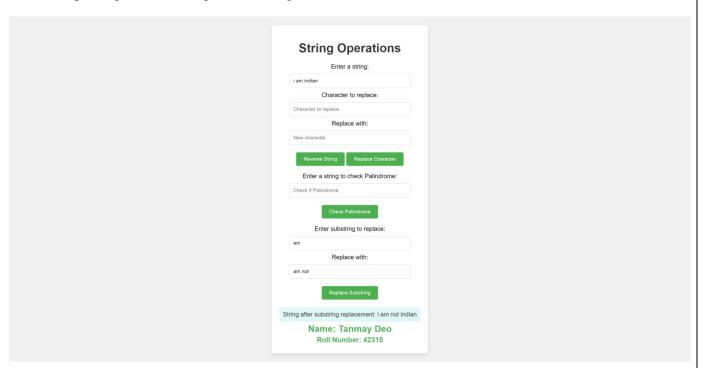


# 3. Checking if String is palindrome





4. Replacing the Substring in the String



Date: