Subject code & Name	:	**CS381 & Full Stack Development**	Practical	:	**2**	Academic Year	:	**2023-2024**

Practical - 2

Aim

Create a functionality that changes the color of the two headings every 1 second when you click the Start Button. The first heading's colour is stored in var, while the second heading's colour is declared using let. Note: Use setInterval() function of javascript. Following that, both of them are accessed outside of the function block. Var will operate properly, but let-declared variables fail since let is block-scoped. Q -1 Write down the difference between var, let, and const.

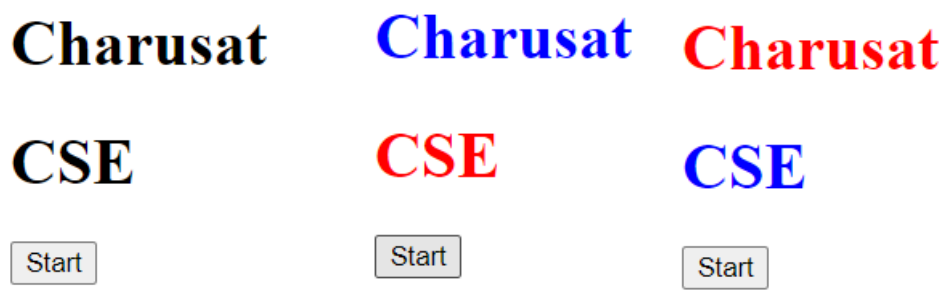
Code

```
<!DOCTYPE html>
<html>
<head>
    <title>Change Headings Color</title>
</head>
<body>
    <h1 id="heading1">Charusat</h1>
    <h1 id="heading2">CSE</h1>
    <button id="startButton">Start</button>

    <script>
        // JavaScript code here
        // Declare variables to store the colors
var color1 = "red"; // Using var (function-scoped)
let color2 = "blue"; // Using let (block-scoped)

// Get references to the headings
const heading1 = document.getElementById("heading1");
const heading2 = document.getElementById("heading2");

// Function to change the color of the headings
function changeColors() {
    heading1.style.color = color1;
    heading2.style.color = color2;

    // Swap the colors for the next iteration
    const temp = color1;
```

```
    color1 = color2;
    color2 = temp;
}
// Get a reference to the Start button
const startButton = document.getElementById("startButton");

// Add a click event listener to start changing colors
startButton.addEventListener("click", () => {
    // Use setInterval to change colors every 1 second
    setInterval(changeColors, 1000);
});
    </script>
</body>
</html>
```

Output

GitHub live page : https://dhruvpatel004.github.io/FSD/PR2/



Diff between var,let and const:

1. var:
   - Function-scoped: Variables declared with var are function-scoped. They are hoisted to the top of their containing function, which can lead to unexpected behavior.
   - Can be redeclared: You can declare the same variable multiple times within the same function or block.
   - Can be reassigned: You can change the value of a var-declared variable.

2. let:
   - Block-scoped: Variables declared with let are block-scoped, which means they are limited to the block in which they are defined (e.g., inside a loop or conditional statement).
   - Cannot be redeclared: You cannot declare the same variable name within the same block.
   - Can be reassigned: You can change the value of a let-declared variable.

3. const:
   - Block-scoped: Variables declared with const are also block-scoped.
   - Cannot be redeclared: You cannot redeclare a const variable in the same scope.
   - Cannot be reassigned: Once a value is assigned to a const variable, it cannot be changed.

Signature :