**Lab4**

**Code: Create the interactive webpages using Javasrcript.**

<!DOCTYPE html>

<html>

<head>

  <title>Lab 3</title>

  <style>

    body {

      font-family: Arial, sans-serif;

      padding: 20px;

    }

    button {

      margin: 5px;

      padding: 8px 12px;

      border: none;

      border-radius: 6px;

      background: #0077ff;

      color: white;

      cursor: pointer;

    }

    button:hover {

      background: #005fcc;

    }

    .output {

      margin-top: 15px;

      padding: 10px;

      border: 1px solid #ccc;

      border-radius: 6px;

      background: #f9f9f9;

      min-height: 30px;

    }

    .demoClass {

      padding: 5px;

      margin: 5px;

      border-radius: 4px;

      background: #eee;

    }

  </style>

</head>

<body>

  <h2>Experiment No 3: Interactive Webpage with JavaScript</h2>

  <button id="btnVar">Show Variables</button>

  <button id="btnLoop">Run Loop</button>

  <div id="output" class="output">Output will appear here...</div>

  <script>

    const output = document.getElementById("output");

    const btnVar = document.getElementById("btnVar");

    const btnLoop = document.getElementById("btnLoop");

    btnVar.addEventListener("click", () => {

      var x = 10;

      let y = 20;

      const PI = 3.14;

      output.innerHTML = `var x = ${x}, let y = ${y}, const PI = ${PI}`;

    });

    btnLoop.addEventListener("click", () => {

      let text = "Loop Output:<br>";

      for (let i = 1; i <= 5; i++) {

        text += "For loop i = " + i + "<br>";

      }

      let j = 0;

      while (j < 3) {

        text += "While loop j = " + j + "<br>";

        j++;

      }

      let k = 0;

      do {

        text += "Do-while loop k = " + k + "<br>";

        k++;

      } while (k < 2);

      const arr = ["A", "B", "C"];

      for (const val of arr) {

        text += "For-of value = " + val + "<br>";

      }

      const obj = {a:1, b:2, c:3};

      for (const key in obj) {

        text += `For-in key = ${key}, value = ${obj[key]}<br>`;

      }

      output.innerHTML = text;

    });

  </script>

</body>

</html>

**Output:**

