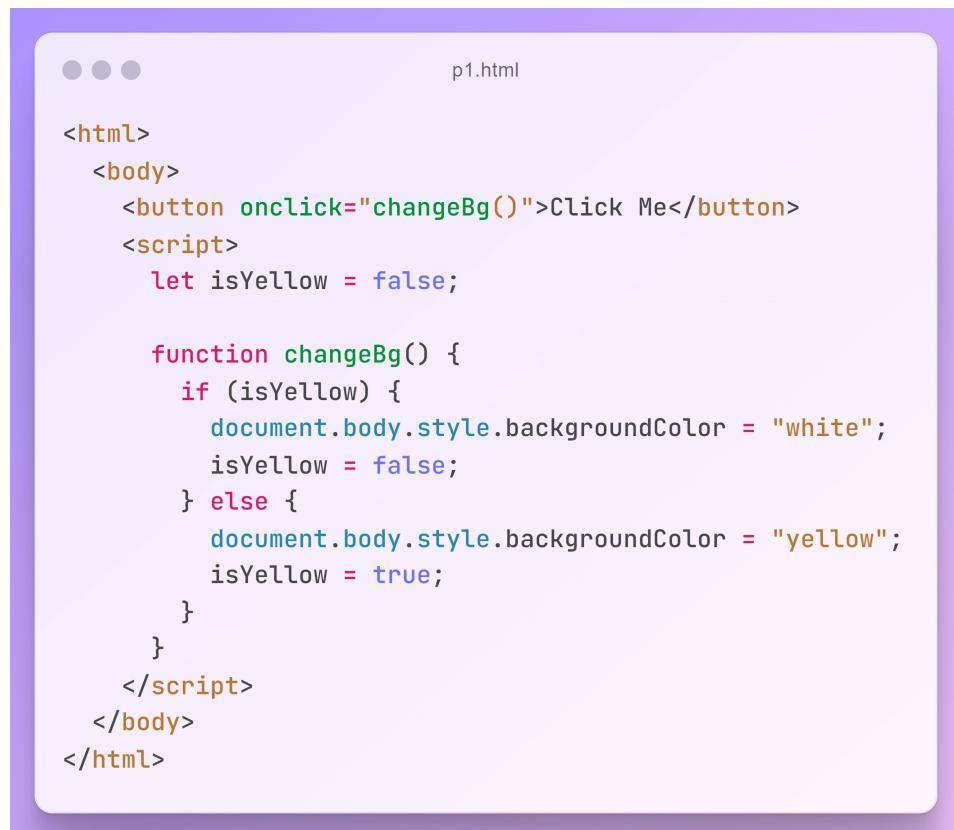


➤ **Lab 5**

➤ **Question:-**

- 1. WAP to change background color on click of button.



```
<html>
  <body>
    <button onclick="changeBg()">Click Me</button>
    <script>
      let isYellow = false;

      function changeBg() {
        if (isYellow) {
          document.body.style.backgroundColor = "white";
          isYellow = false;
        } else {
          document.body.style.backgroundColor = "yellow";
          isYellow = true;
        }
      }
    </script>
  </body>
</html>
```

Click Me

Click Me

- **2. WAP for following effect: If the mouse is over heading, change font color to "red" and if the mouse goes out of the heading change it to "black".**

```
<html>
  <body>
    <h1 id="heading">Heading</h1>

    <script>
      function changeColorOnHover() {
        document.getElementById("heading").style.color = "red";
      }

      function resetColor() {
        document.getElementById("heading").style.color = "black";
      }

      document
        .getElementById("heading")
        .addEventListener("mouseover", changeColorOnHover);
      document
        .getElementById("heading")
        .addEventListener("mouseout", resetColor);
    </script>
  </body>
</html>
```

# Heading

# Heading

- 3. WAP to print current date and time on click of “Date and Time” button.



```
LAB05_p3

<html>
  <body>
    <button onclick="showDateTime()">Date and Time</button>

    <script>
      function showDateTime() {
        const currentDate = new Date();
        alert(currentDate.toLocaleString());
      }
    </script>
  </body>
</html>
```

Date and Time

127.0.0.1:5500 says

12/19/2024, 5:23:43 AM

OK

- 4. WAP to recognize which mouse event is fired.

```
LAB05_p4

<html>
  <body>
    <p id="msg">Click on the button below</p>
    <button id="btn">Click Me</button>

    <script>
      const button = document.getElementById("btn");

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

      button.addEventListener("click", () => {
        msg.innerHTML = "Mouse Clicked";
      });

      button.addEventListener("dblclick", () => {
        msg.innerHTML = "Mouse Double Clicked";
      });

      button.addEventListener("mousedown", () => {
        msg.innerHTML = "Mouse Down";
      });

      button.addEventListener("mouseup", () => {
        msg.innerHTML = "Mouse Up";
      });

      button.addEventListener("mouseover", () => {
        msg.innerHTML = "Mouse Over";
      });

      button.addEventListener("mouseout", () => {
        msg.innerHTML = "Mouse Out";
      });

      button.addEventListener("mousemove", () => {
        msg.innerHTML = "Mouse Move";
      });
    </script>
  </body>
</html>
```

Mouse Move

Click Me

- **5. WAP to recognize which keyboard event is fired.**



The screenshot shows a code editor window titled "LAB05\_p5". The code is written in HTML and JavaScript. It contains a paragraph telling the user to click any key, a variable declaration for "msg", and four event listeners: "keydown", "keyup", "keypress", and "contextmenu". Each listener updates the innerHTML of the element with id "msg" to indicate the type of event and the pressed key.

```
<html>
<body>
<p>Click any key</p>
<p id="msg"></p>

<script>
const msg = document.getElementById("msg");

document.addEventListener("keydown", (e) => {
  msg.innerHTML = You pressed ${e.key};
});

document.addEventListener("keyup", (e) => {
  msg.innerHTML = You released ${e.key};
});

document.addEventListener("keypress", (e) => {
  msg.innerHTML = You pressed ${e.key};
});

document.addEventListener("contextmenu", (e) => {
  msg.innerHTML = "You right clicked";
});
</script>
</body>
</html>
```

**Click any key**

**You released a**

- **6. WAP to design a form using HTML and JavaScript that asks the user to enter his date of birth and on clicking the Calculate Button it calls the function that calculates how many days are left in your birthday.**



```

<html>
  <body>
    <p>Enter your date of birth</p>
    <input type="date" id="dob" />
    <button id="btn">Calculate Days</button>
    <p id="msg"></p>

    <script>
      document.getElementById("btn").addEventListener("click", function () {
        const dob = new Date(document.getElementById("dob").value);
        const today = new Date();

        let nextBirthday = new Date(
          today.getFullYear(),
          dob.getMonth(),
          dob.getDate()
        );

        if (today > nextBirthday) {
          nextBirthday.setFullYear(today.getFullYear() + 1);
        }

        const diff = nextBirthday - today;
        // convert it to days
        const days = Math.ceil(diff / (1000 * 60 * 60 * 24));

        document.getElementById(
          "msg"
        ).innerHTML = You have ${days} days left until your next birthday!;
      });
    </script>
  </body>
</html>

```

Enter your date of birth



Calculate Days

You have 12 days left until your next birthday!

- 7. WAP to greet a user as per the current time. E.g. if anyone opens page at 8:00 am it should greet GOOD Morning.



The screenshot shows a code editor window with a purple header bar. The header bar has three dots on the left and the text "LAB05\_p7" on the right. The main area of the code editor contains the following HTML and JavaScript code:

```
<html>
<body>
<p id="msg"></p>
<script>
    const msg = document.getElementById("msg");
    const date = new Date();
    const hour = date.getHours();
    if (hour < 12) {
        msg.innerHTML = "Good Morning";
    } else if (hour < 18) {
        msg.innerHTML = "Good Afternoon";
    } else {
        msg.innerHTML = "Good Evening";
    }
</script>
</body>
</html>
```

# Good Morning

- 8. WAP to demonstrate callbacks in JavaScript.



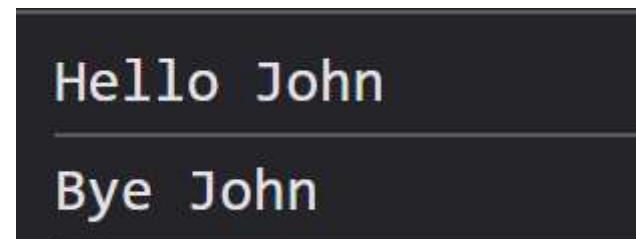
```
<html>
  <body>
    <script>
      function sayHello(name) {
        console.log("Hello " + name);
      }

      function sayBye(name) {
        console.log("Bye " + name);
      }

      function saySomething(name, callback) {
        callback(name);
      }

      saySomething("John", sayHello);
      saySomething("John", sayBye);
    </script>
  </body>
</html>
```

**Console Output:**



```
Hello John
-----
Bye John
```

- **9. WAP to demonstrate change in properties of HTML element using JavaScript**



```
LAB05_p9

<html>
  <body>
    <h1 id="heading">JavaScript Frameworks</h1>
    <script>
      const heading = document.getElementById("heading");
      heading.style.color = "red";
      heading.style.fontSize = "2rem";
      heading.style.fontWeight = "bold";
    </script>
  </body>
</html>
```

# JavaScript Frameworks