



Lab Experiment # 8:
JavaScript Event Listeners & Interactivity

| Name: | Registration Number |
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| Zunair Waqar | CUI/Fa22-Bce-037/ATD |

For the course
Web Technologies

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Experiment 8: JavaScript Event Listeners & Interactivity

Objective

- To explore how JavaScript event listeners enable user-driven interaction on a web-page.
- To understand and apply the this keyword to access and manipulate clicked elements.
- To design a custom, open-ended interactive interface using DOM selection and event handling.

Prompts :

- How to rotate an element with JavaScript on button click?
- Create HTML and JavaScript code that moves a selected element in response to a click event.

Discussion

In this experiment, students will independently design a webpage that reacts dynamically to user actions through JavaScript event listeners. The experiment is intentionally open-ended:

- Students may choose any layout or theme.
- Students decide the number, placement, and design of interactive elements.
- Each interaction must demonstrate the use of event listeners and DOM manipulation.

At least one interaction must explicitly use the this keyword inside the event handler to access the element that triggered the event. This encourages students to understand event context and element-specific behavior.

This experiment focuses on fundamental interactivity and prepares students for more advanced logic in the next experiment.

The figure consists of six screenshots of a web application titled "Experiment 8: Interactive Webpage". Each screenshot shows a set of three orange rectangular buttons labeled "Hover Me!", "Click Me!", and "Move Me!". Above the buttons are three buttons: "Change Color", "Change Text", and "Increase Size".

- Screenshot 1:** Shows the initial state of the buttons.
- Screenshot 2:** Shows the "Click Me!" button highlighted in red, with the message "You clicked the button!" below it.
- Screenshot 3:** Shows the "Move Me!" button being dragged to the right, with the message "Boxes increased in size!" below it.
- Screenshot 4:** Shows the "Hover Me!" button filled with green, with the message "Hovered!" below it and "Boxes increased in size!" at the bottom.
- Screenshot 5:** Shows the "Move Me!" button being dragged to the left, with a diamond-shaped cursor pointing towards it and the message "You clicked Box 2!" below it.
- Screenshot 6:** Shows the "Move Me!" button filled with orange, with the message "Box 3 moved!" below it.

Lab Assessment

Student Name:

Registration #.....

| Criteria | Allocated Marks | Poor 40%-50% | Good 51%-70% | Very Good 71%-80% | Excellent 81%-100% | Marks Obtained (P) |
|--|-----------------|-----------------|-----------------|----------------------|-----------------------|-----------------------|
| Psychomotor (Evaluated during the Lab) | 70 | | | | | |

| Criteria | Allocated Marks | Poor 40%-50% | Good 51%-70% | Very Good 71%-80% | Excellent 81%-100% | Marks Obtained (P) |
|--|-----------------|-----------------|-----------------|----------------------|-----------------------|-----------------------|
| Affective (Evaluated during the lab) | 20 | | | | | |

| Criteria | Allocated Marks | Poor 40%-50% | Good 51%-70% | Very Good 71%-80% | Excellent 81%-100% | Marks Obtained (P) |
|--|-----------------|-----------------|-----------------|----------------------|-----------------------|--------------------|
| Cognitive (Evaluated on report submission) | 10 | | | | | |

$$\text{Obtained Marks} = (0.5 \times P) + (0.2 \times A) + (0.3 \times C) = \underline{\hspace{2cm}} : \text{Total Marks: } \underline{\hspace{2cm}}$$

Course Instructor: _____ Date:_____