Events

Question 1: What are JavaScript events? Explain the role of event listeners.

Answer 2:

**Events** in JavaScript are actions or occurrences that happen in the browser, like:

* A user clicking a button.
* Typing in an input field.
* Hovering over an element.

JavaScript can respond to these events to make web pages interactive.

An **event listener** is a way to tell the browser to watch for a specific event on an element and run a function when that event occurs.

**Role of Event Listeners:**

* They connect actions (like clicking) with the code you want to run.
* Allow dynamic and responsive behavior without modifying the HTML.

**Example of Using an Event Listeners:**

**HTML:**

<button id="myButton">Click Me</button>

**JavaScript:**

let button = document.getElementById("myButton");

// Add an event listener for the 'click' event

button.addEventListener("click", function() {

console.log("Button was clicked!");

});

**Explanation:**

1. **Event:**

* The user clicks the button.
* Trigger actions in JavaScript.

1. **Event Listener:**

* The addEventListener method listens for the "click" event.
* Detect events and run specific code in response.

1. **Action:**

* When the button is clicked, the function runs, and "Button was clicked!" is printed to the console.
* They make web pages interactive and dynamic.

Question 2: How does the addEventListener() method work in JavaScript? Provide an example.

Answer 2:

The addEventListener() method in JavaScript is used to attach an event to an element. When the event occurs, a specified function is executed.

### **Syntax:**

* **JAVASCRIPT:**

element.addEventListener(eventType, function);

* **element**: The HTML element (e.g., button).
* **eventType**: The type of event (e.g., "click").
* **function**: The function to execute when the event occurs.

### **Example:**

* **HTML:**

<button id="myButton">Click Me</button>

* **JAVASCRIPT:**

let button = document.getElementById("myButton");

button.addEventListener("click", function() {

console.log("Button clicked!");

});

### **Explanations:**

* **Event types**: "click", "mouseover", etc.
* **Multiple listeners** can be added to the same event