

Title : Write Java script program to create various event listeners in Javascripts.

Problem description: Create a button in your HTML with the text "Click Me". Add an event listener to log "Button clicked!" to the console when the button is clicked. Select an image and add a mouseover event listener to change its border color. Add an event listener to the document that logs the key pressed by the user.

Method: Add Button, Image to the web page with listener. It is also recommended to use Event object to display the object that generated event using e.target.

Theory Reference: Module 1

```
<!DOCTYPE html>

<html>

<head>

  <title>FSD Event Listeners Example</title>

  <style>
    img {
      width: 200px;
      border: 3px solid black;
      margin-top: 10px;
    }
    #output {
      margin-top: 20px;
      font-size: 18px;
      font-weight: bold;
      color: blue;
    }
  </style>
</head>

<body>

  <h2>Event Listeners in JavaScript</h2>

  <!-- Button -->
  <button id="myButton">Click Me</button>

  <!-- Image -->
  <br><br>
  
```

```
<!-- Output Paragraph -->
```

```
<p id="output">Event messages will appear here...</p>
```

```
<script>
```

```
  // Get output paragraph
```

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

```
  // Button Click Event
```

```
  document.getElementById("myButton").addEventListener("click", function(e) {
```

```
    output.textContent = "Button clicked! Event generated by: " + e.target.tagName;
```

```
  });
```

```
  // Image Mouseover Event
```

```
  document.getElementById("myImage").addEventListener("mouseover", function(e) {
```

```
    e.target.style.borderColor = "red";
```

```
    output.textContent = "Mouseover on image! Event generated by: " + e.target.tagName;
```

```
  });
```

```
  // Reset border when mouse leaves image
```

```
  document.getElementById("myImage").addEventListener("mouseout", function(e) {
```

```
    e.target.style.borderColor = "black";
```

```
  });
```

```
  // Keydown Event for Document
```

```
  document.addEventListener("keydown", function(e) {
```

```
    output.textContent = "Key pressed: " + e.key + " | Event generated by: " + e.target.tagName;
```

```
  });
```

```
</script>
```

```
</body>
```

```
</html>
```