# 8.0 JS Events and The script Tag



*mask in wall - answered by Dante Magbuhos Jr.*

- **HTML DOM** events allow JavaScript to register different event handlers on elements in an HTML document.
- Events are normally used in combination with functions, and the function will not be executed before the event occurs (such as when a user clicks a button).
- **HTML events** are "things" that happen to HTML elements.
- When JavaScript is used in HTML pages, JavaScript can **"react"** on these events.

## HTML events

- An **HTML event** can be something the browser does, or something a user does.
- Some examples of HTML events include:
  - An HTML web page has finished loading
  - An HTML input field was changed
  - An HTML button was clicked
- Often, when events happen, you may want the website do something. JavaScript lets you execute code when events are detected.
- HTML allows event handler attributes, with JavaScript code, to be added to HTML elements.

  `<element event="some JavaScript">`

- In the following example, an `onclick` attribute (with code), is added to a `<button>` element:

  `<button onclick="document.getElementById('demo').innerHTML = Date()">The time is?</button>`

- The JavaScript code changes the content of the element with `id="demo"`.
- In the next example, the code changes the content of its own element (using `this.innerHTML`):

```
<button onclick="this.innerHTML = Date()">The time is?</button>
<button onclick="displayDate()">The time is?</button>
```

## JavaScript event handlers

- Event handlers can be used to handle and verify user input, user actions, and browser actions:
  - Things that should be done every time a page loads
  - Things that should be done when the page is closed
  - Action that should be performed when a user clicks a button
  - Content that should be verified when a user inputs data, and more.
- Many different methods can be used to let JavaScript work with events:
  - HTML event attributes can execute JavaScript code directly
  - HTML event attributes can call JavaScript functions
  - You can assign your own event handler functions to HTML elements
  - You can prevent events from being sent or being handled, and more.

# The script tag

- The `<script>` tag is used to embed a client-side script (JavaScript).
- The `<script>` element either contains scripting statements, or it points to an external script file through the src attribute.
  - Common uses for JavaScript are image manipulation, form validation, and dynamic changes of content.

```
<script>
alert("Hello JavaScript!");
</script>
```

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# Additional Material

- **References**
  - W3Schools