**Difference between preventDefault() and stopPropagation() methods in JavaScript**

**Syntax:**

event.preventDefault();

**Parameter:** This method does not accept any parameter.

**Example 1:**Preventing a link from following the URL so that the browser can not go to another page.

* HTML

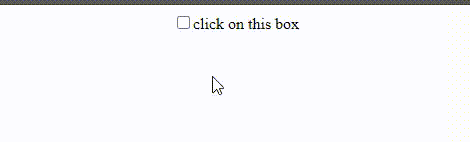
|  |
| --- |
| <!DOCTYPE html>  <html lang="en">    <head>        <!-- Using jquery library -->      <script src=  "<https://code.jquery.com/jquery-git.js>">      </script>  </head>    <body>      <a id="first" href="www.geeksforgeeks.com">          GeeksForGeeks      </a>        <script>          $("#first").click(function () {              event.preventDefault();              alert("Event prevented, Can't go there.");          });      </script>  </body>    </html> |



**Example 2:**Itprevents the user from checking the checkboxes. Usually, when we click on the checkboxes, it toggles but nothing will work, after calling the preventDefault() method.

* HTML

|  |
| --- |
| <!DOCTYPE html>  <html lang="en">    <head>        <!-- Using jquery library -->      <script src=  "<https://code.jquery.com/jquery-git.js>">      </script>  </head>    <body>      <input type="checkbox" id="f" />      click on this box        <script>          $("#f").click(function () {              event.preventDefault();              alert("Event prevented");          });      </script>  </body>    </html> |



[**JavaScript stopPropagation() event method**](https://www.geeksforgeeks.org/html-dom-stoppropagation-event-method/)**:**This method is used to prevent the parent element from accessing the event. Basically, this method is used to prevent the propagation of the same event from being called. For eg,we have a **button**element inside a**div**tag and there is an **onclick**event on both of them, then whenever we try to activate the event attached to the **button** element, then the event attached to the **div**element also gets executed because **div is the parent of the button element.**

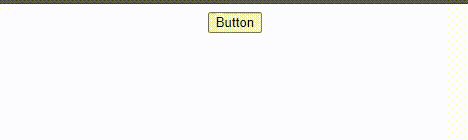
**syntax:**

event.stopPropagation();

**Example 1:**

* HTML

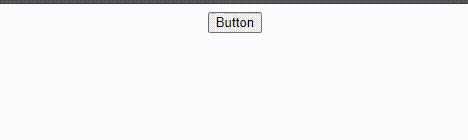
|  |
| --- |
| <!DOCTYPE html>  <html>    <head>        <!-- jQuery library -->      <script src=  "<https://code.jquery.com/jquery-git.js>">      </script>  </head>    <body>      <div class="first" onclick="functionFirst()">          <button onclick="functionSecond()">              Button          </button>      </div>        <script>          function functionSecond() {              alert("button hello");          }          function functionFirst() {              alert("div hello");          }      </script>  </body>    </html> |



**Example 2:**

* HTML

|  |
| --- |
| <!DOCTYPE html>  <html>    <head>        <!-- jQuery library -->      <script src=  "<https://code.jquery.com/jquery-git.js>">      </script>  </head>    <body>      <div class="first" onclick="functionFirst()">          <button onclick="functionSecond()">              Button          </button>      </div>        <script>          function functionSecond() {              event.stopPropagation();              alert("button hello");          }          function functionFirst() {              alert("div hello");          }      </script>  </body>    </html> |



#### Difference between preventDefault() vs stopPropagation() Methods:

| **event.preventDefault() Method** | **event.stopPropagation() Method** |
| --- | --- |
| Prevent the default action of browsers taking on that event. | Prevent further propagation of current events by parent or child elements. |
| It is a method present in the Event interface. | This method is also present in the Event interface. |
| For example, it prevents the browser from following a link. | It can not stop the default behavior of the browser. |
| Its syntax is -:  **event.preventDefault();** | Its syntax is -:  **event.stopPropagation();** |
| This method does not take any parameters | This method also does not take any arguments in its definition |
| Its supported browsers are -: chrome, firefox, safari, opera, etc | Its supported browsers are -: chrome, firefox, safari, opera, etc |
| It does not return value | It does not have any return type |
| Its uses the DOM version of DOM Level 3 Events | Its uses the DOM version of DOM Level 2 Events |