Eventos

1. ¿Qué son los manejadores de eventos?

Los manejadores de eventos son especificaciones vinculadas a elementos XHTML que permiten ejecutar un fragmento de código del script cuando ocurren las condiciones especificadas en el mismo.

2. Define Manejadores como atributos XHTML e indica un ejemplo de codigo

Los manejadores de eventos como atributos XHTML se trata de atributos especiales que actúan como llamada a una función dentro de un script o, directamente, un código escrito dentro del valor de la propia etiqueta. Un ejemplo sería un evento que sirviese para resaltar un fragmento del texto cambiando el color al pasar el cursor por encima.

<span onmouseover=”changeColor()”>esto es un texto html</span>

3. Define Manejadores de eventos con la variable this e indica un ejemplo de código

La variable this, en el contexto de un evento, hace referencia **siempre** a la información de la propia etiqueta que lo ha llamado, que al ser llamada en un evento es definida como un objeto cuyos atributos son los atributos pertenecientes a la etiqueta XHTML. Por ejemplo, si con un evento llamamos a una etiqueta select, podríamos intentar acceder al valor seleccionado de la siguiente forma.

this.value[‘selected_value’], siendo que los valores del select forman un array de posibilidades (cada una de las posiciones equivale a un option)

4. Define Manejadores de eventos como funciones externas e indica un ejemplo de código

Los manejadores de eventos mediante el uso de funciones externas son aquellos que, al ser llamados mediante el atributo XHTML pertinente, hacen una llamada a una función definida en un script. Un ejemplo sería el de añadir una función que se active al pulsar un botón.

<button onclick=”funcionEjemplo()”>¡Soy un botón!</button>

5. Define Manejadores de eventos semánticos e indica un ejemplo de código.

Un manejador de eventos con funciones externas funciona con el uso de funciones creadas en un script vinculado al documento de forma externa, en la que se toma el elemento al que vincularle el evento y se le añade una función de escucha a la llamada.
Con esto nos referimos a addEventListener, que ayuda enormemente a mantener despejado el documento XHTML, lo cual es realmente importante, teniendo en cuenta la cantidad de código php o NodeJS que presentará en una página real.

El mismo evento de ejemplo de antes, en forma de comparador léxico.

```
document.getItemById(‘botonEjemplo’).addEventListener(“mousedown”,
(e)=>{funcionEjemplo});
```

6. ¿Qué es el Event bubbling?

El bubbling de eventos es, cuando al activar a un evento ubicado en una etiqueta hija de una etiqueta padre que a su vez también tiene un evento, este es activado por efecto de la herencia inversa. Muy rara vez esto es un efecto deseado, normalmente se trata de reacciones en cadena no deseadas. Esto puede ser prevenido teniendo mucho cuidado o, en caso de que sea inevitable, especificando que el evento NO se propague usando la propiedad del objeto evento .stopPropagation()

7. ¿Qué es el Event capturing?

El event capturing es exactamente lo mismo que el event bubbling, con la diferencia de que la propagación del evento no se da entre hijos anidados por herencia inversa, si no por herencia común en cascada de elemento padre a elemento hijo.

8. ¿Que es el Event Dom?

Un evento DOM es un evento que se crea y llama mediante las librerías DOM, osease, es lo mismo que un manejador de evento semántico.

9. Define el objeto event, sus propiedades y metodos

El objeto event es el objeto que se crea para recoger toda la información referente al evento. Está estrechamente relacionado con “this”, sólo que como ya se dijo, “this” hace referencia al elemento que llama al evento y el objeto event (normalmente llamado “e”) hace referencia únicamente a la información del evento, siendo usado normalmente como parámetro de la función que se activa con el call en caso de ser necesario. Aquí dejo una lista de los métodos del objeto evento, sacados de la librería de DOM.

bubbles	Returns whether or not a specific event is a bubbling event
cancelBubble	Sets or returns whether the event should propagate up the hierarchy or not
cancelable	Returns whether or not an event can have its default action prevented
composed	Returns whether the event is composed or not
createEvent()	Creates a new event
composedPath()	Returns the event's path
currentTarget	Returns the element whose event listeners triggered the event
defaultPrevented	Returns whether or not the preventDefault() method was called for the event
eventPhase	Returns which phase of the event flow is currently being evaluated
isTrusted	Returns whether or not an event is trusted

preventDefault() Cancels the event if it is cancelable, meaning that the default action that belongs to the event will not occur

stopImmediatePropagation() Prevents other listeners of the same event from being called

stopPropagation() Prevents further propagation of an event during event flow

target Returns the element that triggered the event

timeStamp Returns the time (in milliseconds relative to the epoch) at which the event was created

type Returns the name of the event

Event Types

These event types belongs to the Event Object:

Event Description

abort The event occurs when the loading of a media is aborted

afterprint The event occurs when a page has started printing

beforeprint The event occurs when a page is about to be printed

beforeunload The event occurs before the document is about to be unloaded

canplay The event occurs when the browser can start playing the media (when it has buffered enough to begin)

canplaythrough The event occurs when the browser can play through the media without stopping for buffering

change The event occurs when the content of a form element, the selection, or the checked state have changed (for <input>, <select>, and <textarea>)

error The event occurs when an error occurs while loading an external file

fullscreenchange The event occurs when an element is displayed in fullscreen mode

fullscreenerror The event occurs when an element can not be displayed in fullscreen mode

input The event occurs when an element gets user input

invalid The event occurs when an element is invalid

load The event occurs when an object has loaded

loadeddata The event occurs when media data is loaded

loadedmetadata The event occurs when meta data (like dimensions and duration) are loaded

message The event occurs when a message is received through the event source

offline The event occurs when the browser starts to work offline

online The event occurs when the browser starts to work online

open The event occurs when a connection with the event source is opened

pause The event occurs when the media is paused either by the user or programmatically

play The event occurs when the media has been started or is no longer paused

playing The event occurs when the media is playing after having been paused or stopped for buffering

progress The event occurs when the browser is in the process of getting the media data (downloading the media)

ratechange The event occurs when the playing speed of the media is changed

resize The event occurs when the document view is resized

reset The event occurs when a form is reset

scroll The event occurs when an element's scrollbar is being scrolled

search The event occurs when the user writes something in a search field (for <input="search">)

seeked The event occurs when the user is finished moving/skipping to a new position in the media
seeking The event occurs when the user starts moving/skipping to a new position in the media
select The event occurs after the user selects some text (for <input> and <textarea>)
show The event occurs when a <menu> element is shown as a context menu
stalled The event occurs when the browser is trying to get media data, but data is not available
submit The event occurs when a form is submitted
suspend The event occurs when the browser is intentionally not getting media data
timeupdate The event occurs when the playing position has changed (like when the user fast forwards to a different point in the media)
toggle The event occurs when the user opens or closes the <details> element
unload The event occurs once a page has unloaded (for <body>)
waiting The event occurs when the media has paused but is expected to resume (like when the media pauses to buffer more data)

10. ¿Qué tipos de eventos existen segun el DOM? indica cada uno de los grupos existentes y ejemplos de cada grupo.

Lista de tipo de eventos DOM según W3School

abort	The event occurs when the loading of a media is aborted	UiEvent, Event
afterprint	The event occurs when a page has started printing, or if the print dialogue box has been closed	Event
animationend	The event occurs when a CSS animation has completed	AnimationEvent
animationiteration	The event occurs when a CSS animation is repeated	AnimationEvent

animationstart	The event occurs when a CSS animation has started	AnimationEvent
beforeprint	The event occurs when a page is about to be printed	Event
beforeunload	The event occurs before the document is about to be unloaded	UiEvent, Event
blur	The event occurs when an element loses focus	FocusEvent
canplay	The event occurs when the browser can start playing the media (when it has buffered enough to begin)	Event
canplaythrough	The event occurs when the browser can play through the media without stopping for buffering	Event
change	The event occurs when the content of a form element, the selection, or the checked state have changed (for <input>, <select>, and <textarea>)	Event
click	The event occurs when the user clicks on an element	MouseEvent

contextmenu	The event occurs when the user right-clicks on an element to open a context menu	MouseEvent
copy	The event occurs when the user copies the content of an element	ClipboardEvent
cut	The event occurs when the user cuts the content of an element	ClipboardEvent
dblclick	The event occurs when the user double-clicks on an element	MouseEvent
drag	The event occurs when an element is being dragged	DragEvent
dragend	The event occurs when the user has finished dragging an element	DragEvent
dragenter	The event occurs when the dragged element enters the drop target	DragEvent
dragleave	The event occurs when the dragged element leaves the drop target	DragEvent
dragover	The event occurs when the dragged element is over the drop target	DragEvent

dragstart	The event occurs when the user starts to drag an element	DragEvent
drop	The event occurs when the dragged element is dropped on the drop target	DragEvent
durationchange	The event occurs when the duration of the media is changed	Event
ended	The event occurs when the media has reach the end (useful for messages like "thanks for listening")	Event
error	The event occurs when an error occurs while loading an external file	ProgressEvent, UiEvent, Event
focus	The event occurs when an element gets focus	FocusEvent
focusin	The event occurs when an element is about to get focus	FocusEvent
focusout	The event occurs when an element is about to lose focus	FocusEvent
fullscreenchange	The event occurs when an element is displayed in fullscreen mode	Event

fullscreenerror	The event occurs when an element can not be displayed in fullscreen mode	Event
hashchange	The event occurs when there has been changes to the anchor part of a URL	HashChangeEvent
input	The event occurs when an element gets user input	InputEvent, Event
invalid	The event occurs when an element is invalid	Event
keydown	The event occurs when the user is pressing a key	KeyboardEvent
keypress	The event occurs when the user presses a key	KeyboardEvent
keyup	The event occurs when the user releases a key	KeyboardEvent
load	The event occurs when an object has loaded	UiEvent, Event
loadeddata	The event occurs when media data is loaded	Event

loadedmetadata	The event occurs when meta data (like dimensions and duration) are loaded	Event
loadstart	The event occurs when the browser starts looking for the specified media	ProgressEvent
message	The event occurs when a message is received through the event source	Event
mousedown	The event occurs when the user presses a mouse button over an element	MouseEvent
mouseenter	The event occurs when the pointer is moved onto an element	MouseEvent
mouseleave	The event occurs when the pointer is moved out of an element	MouseEvent
mousemove	The event occurs when the pointer is moving while it is over an element	MouseEvent
mouseover	The event occurs when the pointer is moved onto an element, or onto one of its children	MouseEvent
mouseout	The event occurs when a user moves the mouse pointer out of an element, or out of one of its children	MouseEvent

mouseup	The event occurs when a user releases a mouse button over an element	MouseEvent
mousewheel	Deprecated. Use the wheel event instead	WheelEvent
offline	The event occurs when the browser starts to work offline	Event
online	The event occurs when the browser starts to work online	Event
open	The event occurs when a connection with the event source is opened	Event
pagehide	The event occurs when the user navigates away from a webpage	PageTransitionEvent
pageshow	The event occurs when the user navigates to a webpage	PageTransitionEvent
paste	The event occurs when the user pastes some content in an element	ClipboardEvent
pause	The event occurs when the media is paused either by the user or programmatically	Event

play	The event occurs when the media has been started or is no longer paused	Event
playing	The event occurs when the media is playing after having been paused or stopped for buffering	Event
popstate	The event occurs when the window's history changes	PopStateEvent
progress	The event occurs when the browser is in the process of getting the media data (downloading the media)	Event
ratechange	The event occurs when the playing speed of the media is changed	Event
resize	The event occurs when the document view is resized	UiEvent, Event
reset	The event occurs when a form is reset	Event
scroll	The event occurs when an element's scrollbar is being scrolled	UiEvent, Event

search	The event occurs when the user writes something in a search field (for <input="search">)	Event
seeked	The event occurs when the user is finished moving/skipping to a new position in the media	Event
seeking	The event occurs when the user starts moving/skipping to a new position in the media	Event
select	The event occurs after the user selects some text (for <input> and <textarea>)	UiEvent, Event
show	The event occurs when a <menu> element is shown as a context menu	Event
stalled	The event occurs when the browser is trying to get media data, but data is not available	Event
storage	The event occurs when a Web Storage area is updated	StorageEvent
submit	The event occurs when a form is submitted	Event

suspend	The event occurs when the browser is intentionally not getting media data	Event
timeupdate	The event occurs when the playing position has changed (like when the user fast forwards to a different point in the media)	Event
toggle	The event occurs when the user opens or closes the <details> element	Event
touchcancel	The event occurs when the touch is interrupted	TouchEvent
touchend	The event occurs when a finger is removed from a touch screen	TouchEvent
touchmove	The event occurs when a finger is dragged across the screen	TouchEvent
touchstart	The event occurs when a finger is placed on a touch screen	TouchEvent
transitionend	The event occurs when a CSS transition has completed	TransitionEvent
unload	The event occurs once a page has unloaded (for <body>)	UiEvent, Event

volumechange	The event occurs when the volume of the media has changed (includes setting the volume to "mute")	Event
waiting	The event occurs when the media has paused but is expected to resume (like when the media pauses to buffer more data)	Event
wheel	The event occurs when the mouse wheel rolls up or down over an element	WheelEvent

HTML DOM Event Properties and Methods

Property/Method	Description	Belongs To
altKey	Returns whether the "ALT" key was pressed when the mouse event was triggered	MouseEvent
altKey	Returns whether the "ALT" key was pressed when the key event was triggered	KeyboardEvent, TouchEvent

animationName	Returns the name of the animation	AnimationEvent
bubbles	Returns whether or not a specific event is a bubbling event	Event
button	Returns which mouse button was pressed when the mouse event was triggered	MouseEvent
buttons	Returns which mouse buttons were pressed when the mouse event was triggered	MouseEvent
cancelable	Returns whether or not an event can have its default action prevented	Event
charCode	Returns the Unicode character code of the key that triggered the onkeypress event	KeyboardEvent
changeTouches	Returns a list of all the touch objects whose state changed between the previous touch and this touch	TouchEvent
clientX	Returns the horizontal coordinate of the mouse pointer, relative to the current window, when the mouse event was triggered	MouseEvent, TouchEvent

clientY	Returns the vertical coordinate of the mouse pointer, relative to the current window, when the mouse event was triggered	MouseEvent, TouchEvent
clipboardData	Returns an object containing the data affected by the clipboard operation	ClipboardData
code	Returns the code of the key that triggered the event	KeyboardEvent
composed	Returns whether the event is composed or not	Event
ctrlKey	Returns whether the "CTRL" key was pressed when the mouse event was triggered	MouseEvent
ctrlKey	Returns whether the "CTRL" key was pressed when the key event was triggered	KeyboardEvent, TouchEvent
currentTarget	Returns the element whose event listeners triggered the event	Event
data	Returns the inserted characters	InputEvent

dataTransfer	Returns an object containing the data being dragged/dropped, or inserted/deleted	DragEvent, InputEvent
defaultPrevented	Returns whether or not the preventDefault() method was called for the event	Event
deltaX	Returns the horizontal scroll amount of a mouse wheel (x-axis)	WheelEvent
deltaY	Returns the vertical scroll amount of a mouse wheel (y-axis)	WheelEvent
deltaZ	Returns the scroll amount of a mouse wheel for the z-axis	WheelEvent
deltaMode	Returns a number that represents the unit of measurements for delta values (pixels, lines or pages)	WheelEvent
detail	Returns a number that indicates how many times the mouse was clicked	UiEvent
elapsedTime	Returns the number of seconds an animation has been running	AnimationEvent

elapsedTime	Returns the number of seconds a transition has been running	
eventPhase	Returns which phase of the event flow is currently being evaluated	Event
getTargetRanges()	Returns an array containing target ranges that will be affected by the insertion/deletion	InputEvent
getModifierState()	Returns an array containing target ranges that will be affected by the insertion/deletion	MouseEvent
inputType	Returns the type of the change (i.e "inserting" or "deleting")	InputEvent
isComposing	Returns whether the state of the event is composing or not	InputEvent, KeyboardEvent
isTrusted	Returns whether or not an event is trusted	Event
key	Returns the key value of the key represented by the event	KeyboardEvent

key	Returns the key of the changed storage item	StorageEvent
keyCode	Returns the Unicode character code of the key that triggered the onkeypress event, or the Unicode key code of the key that triggered the onkeydown or onkeyup event	KeyboardEvent
location	Returns the location of a key on the keyboard or device	KeyboardEvent
lengthComputable	Returns whether the length of the progress can be computable or not	ProgressEvent
loaded	Returns how much work has been loaded	ProgressEvent
metaKey	Returns whether the "META" key was pressed when an event was triggered	MouseEvent
metaKey	Returns whether the "meta" key was pressed when the key event was triggered	KeyboardEvent, TouchEvent
MovementX	Returns the horizontal coordinate of the mouse pointer relative to the position of the last mousemove event	MouseEvent

MovementY	Returns the vertical coordinate of the mouse pointer relative to the position of the last mousemove event	MouseEvent
newValue	Returns the new value of the changed storage item	StorageEvent
newURL	Returns the URL of the document, after the hash has been changed	HasChangeEvent
offsetX	Returns the horizontal coordinate of the mouse pointer relative to the position of the edge of the target element	MouseEvent
offsetY	Returns the vertical coordinate of the mouse pointer relative to the position of the edge of the target element	MouseEvent
oldValue	Returns the old value of the changed storage item	StorageEvent
oldURL	Returns the URL of the document, before the hash was changed	HasChangeEvent
onemptied	The event occurs when something bad happens and the media file is suddenly unavailable (like unexpectedly disconnects)	

pageX	Returns the horizontal coordinate of the mouse pointer, relative to the document, when the mouse event was triggered	MouseEvent
pageY	Returns the vertical coordinate of the mouse pointer, relative to the document, when the mouse event was triggered	MouseEvent
persisted	Returns whether the webpage was cached by the browser	PageTransitionEvent
preventDefault()	Cancels the event if it is cancelable, meaning that the default action that belongs to the event will not occur	Event
propertyName	Returns the name of the CSS property associated with the animation or transition	AnimationEvent, TransitionEvent
pseudoElement	Returns the name of the pseudo-element of the animation or transition	AnimationEvent, TransitionEvent
region		MouseEvent

relatedTarget	Returns the element related to the element that triggered the mouse event	MouseEvent
relatedTarget	Returns the element related to the element that triggered the event	FocusEvent
repeat	Returns whether a key is being hold down repeatedly, or not	KeyboardEvent
screenX	Returns the horizontal coordinate of the mouse pointer, relative to the screen, when an event was triggered	MouseEvent
screenY	Returns the vertical coordinate of the mouse pointer, relative to the screen, when an event was triggered	MouseEvent
shiftKey	Returns whether the "SHIFT" key was pressed when an event was triggered	MouseEvent
shiftKey	Returns whether the "SHIFT" key was pressed when the key event was triggered	KeyboardEvent, TouchEvent
state	Returns an object containing a copy of the history entries	PopStateEvent

stopImmediatePropagation()	Prevents other listeners of the same event from being called	Event
stopPropagation()	Prevents further propagation of an event during event flow	Event
storage Area	Returns an object representing the affected storage object	StorageEvent
target	Returns the element that triggered the event	Event
targetTouches	Returns a list of all the touch objects that are in contact with the surface and where the touchstart event occured on the same target element as the current target element	TouchEvent
timeStamp	Returns the time (in milliseconds relative to the epoch) at which the event was created	Event
total	Returns the total amount of work that will be loaded	ProgressEvent
touches	Returns a list of all the touch objects that are currently in contact with the surface	TouchEvent

transitionend	The event occurs when a CSS transition has completed	TransitionEvent
type	Returns the name of the event	Event
url	Returns the URL of the changed item's document	StorageEvent
which	Returns which mouse button was pressed when the mouse event was triggered	MouseEvent
which	Returns the Unicode character code of the key that triggered the onkeypress event, or the Unicode key code of the key that triggered the onkeydown or onkeyup event	KeyboardEvent
view	Returns a reference to the Window object where the event occurred	UiEvent