JavaScript Events

- Interactions create events
- Events trigger code
- Code responds to users

- Events are used in combination with functions
- Events trigger functions to be executed
- (such as when a user clicks a button)

UI Events

onerror	The event occurs when an error occurs while loading an external file
onload	The event occurs when an object has loaded
onresize	The event occurs when a document view is resized
onscroll	The event occurs when an element's scrollbar is being scrolled
onunload	The event occurs once a page has unloaded (for <body

```
<html>
<head>
<title>Random Script</title>
<script>
var myPix = new Array("images/red.gif","images/green.gif","images/
blue.gif")
function choosePic() {
    if(document.images{
      randomNum = Math.floor(Math.random()*myPix.length)
      document.image.src=myPix[randomNum]
        }}
</script>
```

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```
</script>
</head>
<body onLoad="choosePic()">

<img src="images/red.gif" name ="image">
</body>
</html>
```

Keyboard Events

onkeydown	The event occurs when the user is pressing a key
onkeypress	The event occurs when the user presses a key
onkeyup	The event occurs when the user releases a key

```
<input type="text" onkeypress="myFunction()">
```

Mouse Events

onclick	The event occurs when the user clicks on an element
ondblclick	The event occurs when the user double-clicks on an element
onmousedown	The event occurs when a user presses a mouse button over an element
onmouseover	The event occurs when the pointer is moved onto an element, or onto one of its children
onmouseout	The event occurs when a user moves the mouse pointer out of an element, or out of one of its children
onmouseup	The event occurs when a user releases a mouse button over an element

Mouse Events

```
<html> <head>
<title>bgcolor_change</title>
<script language="JavaScript">
function newbg(thecolor) {
document.bgColor=thecolor;
}
</script> </head>
<body textcolor="black" link="black" alink="black">
<a href="#" onmousedown="newbg('olive');"> olive</a><br />
<a href="#" onmousedown="newbg('blue');"> blue</a><br />
<a href="#" onmousedown="newbg('Beige');"> beige</a><br />
</body> </html>
```

Focus Events

onblur   The event occurs when an element loses focus

onfocus   The event occurs when an element gets focus

```html
<!DOCTYPE html>
<html>
<body>
Enter your name: <input type="text" onfocus="myFunction(this)">
<p>When the input field gets focus, a function is triggered which chan
the background-color.</p>
<script>
function myFunction(x) {
    x.style.background = "yellow";
}
</script>
</body></html>
```

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Form Events

onchange	The event occurs when the content of a form element, the selection, or the checked state have changed (for <input>, <keygen>, <select>, and <textarea>)
oninput	The event occurs when an element gets user input
onreset	The event occurs when a form is reset
onsearch	The event occurs when a user writes something in a search field (for <input="search">)
onselect	The event occurs after the user selects some text (for <input> and <textarea>)
onsubmit	The event occurs when a form is submitted

Form Events

```
<!DOCTYPE html>
<html> <body>
<p>Write something in the text field to trigger a function.</p>
<input type="text" id="myInput" oninput="myFunction()">
<p id="demo"></p>
<script>
function myFunction() {
    var x = document.getElementById("myInput").value;
    document.getElementById("demo").innerHTML = "You wrote: " + x;
}
</script> </body>
```

How Events trigger JavaScript code

1. Select element (<body>)
2. Specify event (onLoad)
3. Call code (function ())

3 ways to use events

1) HTML event handlers – old fashioned

   `<a onclick="hide()">`

2) DOM event handlers

   ```
   var el = document.getElementById('username');
   el.onblur = checkUsername();
   ```

3) DOM level 2 listeners

   ```
   var el = document.getElementById('username');
   el.addEventListener('blur', checkUsername, false);
   ```

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HTML event handlers

```
<html><head>
<title> rollovers </title>
</script>
</head>
<body>
<a href="#"
onmouseover="document.sample.src='images/image2.jpg';
return false;"
onmouseout="document.sample.src='images/image1.jpg';
return false;">
<img src="images/image1.jpg" name="sample">
</a>
</body></html>
```

Ch. 6 example event_attributes.html

DOM event handlers

```
element. onevent = functionName;

function checkUsername() {
 //some code to check the length of username
}

var el = document.getElementById('username');
el.onblur =checkUsername;
```

DOM event handlers

Example
event_handler.html

DOM event handlers

Assignment 6

Write a script to print "DES 350 class" if current day is M or W.
Create a function to determine current day using Date object.

Use DOM event handler to print the message.