

```
Extra, function  
y for outerHeight, outerWidth  
Name ] = function( margin, value ) {  
ble = arguments.length && ( defaultExtra || typeof arguments[0] === 'string' ? "margin" : "padding" );  
= defaultExtra || ( margin === true || value === true ? "margin" : "padding" );  
ccess( this, function( elem, type, value ) {  
doc;  
( jQuery.isWindow( elem ) ) {  
// $( window ).outerWidth/Height return w/h including scrollbar widths  
return functionName.indexOf( "outer" ) === 0 ?  
elem[ "inner" + name ] :  
elem.document.documentElement[ "client" + name ];  
}  
// Get document width or height  
if ( elem.nodeType === 9 ) {  
doc = elem.documentElement;  
// Either scroll[Width/Height] or offset[Width/Height] or client[Width/Height]  
// whichever is greatest  
return Math.max( doc.body[ "scroll" + name ], doc[ "scroll" + name ],  
doc.body[ "offset" + name ], doc[ "offset" + name ],  
doc.body[ "client" + name ], doc[ "client" + name ] );  
}
```

Session 2: Animation and Multimedia Using JavaScript and HTML5 DOM Methods

CSS Transitions

CSS Transitions

- CSS transitions allow us to change property values smoothly over a given duration.
- We describe a property and how it changes should be animated.
- When the property changes, the browser paints the animation.
- That is, all we need is to change the property, and the fluid transition will be done by the browser.
- For instance, the CSS below animates changes of background-color for 2 seconds:

```
.animate {  
  
    transition-property: background-color;  
  
    transition-duration: 2s;  
  
}
```

CSS Transitions

- Transition-property
- Transition-duration
- Transition-timing-function
- Transition-delay

transition-timing-function

transition-timing-function

Transition-timing-function has several built-in curves which have different values, such as:

`linear|ease|ease-in|ease-out|ease-in-out|step-start|step-end|steps(int,start|end)|cubic-bezier(n,n,n,n)|i`

`nitial|inherit;`

Value	Description
ease	Default value. Specifies a transition effect with a slow start, then fast, then end slowly (equivalent to cubic-bezier(0.25,0.1,0.25,1))
linear	Specifies a transition effect with the same speed from start to end (equivalent to cubic-bezier(0,0,1,1))
ease-in	Specifies a transition effect with a slow start (equivalent to cubic-bezier(0.42,0,1,1))
ease-out	Specifies a transition effect with a slow end (equivalent to cubic-bezier(0,0,0.58,1))
ease-in-out	Specifies a transition effect with a slow start and end (equivalent to cubic-bezier(0.42,0,0.58,1))
step-start	Equivalent to steps(1, start)
step-end	Equivalent to steps(1, end)
steps(int,start end)	Specifies a stepping function, with two parameters. The first parameter specifies the number of intervals in the function. It must be a positive integer (greater than 0). The second parameter, which is optional, is either the value "start" or "end", and specifies the point at which the change of values occur within the interval. If the

	second parameter is omitted, it is given the value "end"
cubic-bezier(n,n,n,n)	Define your own values in the cubic-bezier function. Possible values are numeric values from 0 to 1
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

Example of transition-delay

Example of transition-delay

- It is seen that transition-duration and property have been used.
- In this output, the duration of background-color is 3 seconds. On hover the square, the background color changes to green for 3 seconds.
