

# jQuery-free JavaScript

Native DOM Manipulation

Elijah Manor  
<http://elijahmanor.com>  
[@elijahmanor](#)



**pluralsight**   
hardcore developer training

A black and white photograph of two acrobats performing on a high wire. The acrobats are silhouetted against a bright, overexposed background. They are in dynamic, balanced poses, with one leg extended forward and arms outstretched to maintain balance. The high wire is a thin line that runs vertically through the center of the frame. The overall composition is minimalist and emphasizes the grace and balance of the performance.

# **DOM Manipulation**

# Classes

## jQuery

```
var widget = $("#widget");  
  
widget.addClass("active");  
widget.addClass("active dirty");  
widget.removeClass("active");  
widget.toggleClass("active");  
widget.hasClass("active");
```

# Classes

Native: Opt

document.  
document.

Native: Opt

// https:  
var widge

widget.cl

widget.cl

widget.cl

widget.cl

widget.cl

## classList (DOMTokenList)

W3C Working Draft

Supported from the following versions:

### Desktop

				
8	3.6	10	11.5	5.1

### Mobile / Tablet

				
5	3	11.1	0	0

Supported:

Yes

No

Partially

Polyfill

Stats from [caniuse.com](https://caniuse.com)

active";

# HTML & Text

## jQuery

```
var widget = $("#widget");  
widget.html("<strong>hello</strong>"); // Setter  
widget.html; // Getter  
widget.text("goodbye"); // Setter  
widget.text; // Getter
```

## Native

```
var widget = document.getElementById("widget");  
widget.innerHTML = "<strong>hello</strong>"; // Setter  
widget.innerHTML; // Getter  
widget.innerText = "goodbye"; // Setter  
widget.innerText; // Getter
```

# Append & Prepend

## jQuery

```
$("#jquery").prepend("<div>Hello jQuery</div>");  
$("#jquery").append("<div>Goodbye jQuery</div>");
```

## Native

```
var pDiv = document.createElement("div");  
pDiv.innerText = "Hello Vanilla";  
document.getElementById("vanilla").insertBefore(pDiv);
```

```
var aDiv = document.createElement("div");  
aDiv.innerText = "Goodbye Vanilla";  
document.getElementById("vanilla").appendChild(aDiv);
```

# Remove

## jQuery

```
var widget = $("#widget");
```

```
widget.empty();
```

```
widget.html("");
```

```
widget.remove();
```

## Native

```
var widget = document.getElementById("widget");
```

```
widget.innerHTML = "";
```

```
while (widget.lastChild) {
```

```
    widget.removeChild(widget.lastChild);
```

```
}
```

```
widget.parentNode.removeChild(widget);
```

# CSS

## jQuery: Option 1

```
var widget = $("#widget");  
widget.css("color", "red");  
widget.css("background-color", "blue");  
widget.css("font-size", "20px");
```

## jQuery: Option 2

```
var widget = $("#widget");  
widget.css({  
    color: "red",  
    "background-color": "blue",  
    fontSize: "20px",  
});
```



# CSS

## Native: Option 1

```
var widget = document.getElementById("widget");  
widget.style.color = "red";  
widget.style.backgroundColor = "blue";  
widget.style.fontSize = "20px";
```

## Native: Option 2

```
var widget = document.getElementById("widget");  
  
widget.style["color"] = "red";  
widget.style["backgroundColor"] = "blue";  
widget.style["fontSize"] = "20px";
```

# CSS

Native: Option 3

```
var widget = document.getElementById("widget");

function updateStyle(element, styles) {
  for (var style in styles) {
    if (styles.hasOwnProperty(style)) {
      element.style[style] = styles[style];
    }
  }
}

updateStyle(widget, {
  color: "red",
  backgroundColor: "blue"
});
```

# Attributes & Properties

## jQuery

```
var search = $("#search"),  
    toggle = $("#toggle"),  
    anchor = $("#about");
```

```
search.attr("placeholder", "Search here...");  
search.attr("placeholder");
```

```
toggle.prop("checked", true);  
toggle.prop("checked");
```

```
anchor.attr("href"); //./pages/about.html  
anchor.prop("href"); //http://domain.com/pages/about.html
```

# Attributes & Properties

## Native

```
var search = document.getElementById("search"),
    toggle = document.getElementById("toggle"),
    anchor = document.getElementById("about");

search.setAttribute("placeholder", "Search here...");
search.getAttribute("placeholder");

toggle.checked = true;
toggle.checked;

anchor.getAttribute("href"); //./pages/about.html
anchor.href; //http://domain.com/pages/about.html
```

# Value

## jQuery

```
var search = $("#search");  
  
search.val("Doctor Who");    // Getter  
search.val();                 // Setter
```

## Native

```
var search = document.getElementById("search");  
  
search.value = "Doctor Who"; // Getter  
search.value;                // Setter
```

```

// Create innerHeight, innerWidth, height, width, outerHeight and outerWidth methods
jQuery.each( { Height: "height", Width: "width" }, function( name, type ) {
    jQuery.each( { padding: "inner" + name, content: type, "": "outer" + name }, function( defaultExtra, funcName ) {
        // margin is only for outerHeight, outerWidth
        jQuery.fn[ funcName ] = function( margin, value ) {
            var chainable = arguments.length && ( defaultExtra || typeof margin !== "boolean" ),
                extra = defaultExtra || ( margin === true || value === true ? "margin" : "border" );

            return access( this, function( elem, type, value ) {
                var doc;

                if ( jQuery.isWindow( elem ) ) {
                    // As of 5/8/2012 this will yield incorrect results for Mobile Safari, but there
                    // isn't a whole lot we can do. See pull request at this URL for discussion:
                    // https://github.com/jquery/jquery/pull/764
                    return 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(
                        elem.body[ "scroll" + name ], doc[ "scroll" + name ],
                        elem.body[ "offset" + name ], doc[ "offset" + name ],
                        doc[ "client" + name ]
                    );
                }

                return value === undefined ?
                    // Get width or height on the element, requesting but not forcing parseFloat
                    jQuery.css( elem, type, extra ) :

                    // Set width or height on the element
                    jQuery.style( elem, type, value, extra );
            }, type, chainable ? margin : undefined, chainable, null );
        };
    });
});

```

# DEMO

- **Classes**
- **Prepend/Append**
- **Remove**
- **CSS**
- **HTML/Text**
- **Attributes/Properties**
- **Value**
- **Height/Width**

# Summary

```
var $w = $("#widget");  
$w.addClass("active");
```

```
$w.html("Hello World");
```

```
$w.append("<div>Bye</div>");
```

```
$w.find("div").remove();
```

```
$w.css("color", "blue");
```

```
$w.prop("title", "Howdy");
```

```
var input = $("#search");
```

```
var search = input.val();
```

```
input.val($w.outerWidth());
```

```
var w = document.getElementById("widget");  
w.classList.add("active");
```

```
w.innerHTML = "Hello World";
```

```
var div = document.createElement("div");  
div.innerText = "Bye"; w.appendChild(div);
```

```
w.removeChild(div);
```

```
w.style.color = "blue";
```

```
w.title = "Howdy";
```

```
var input = document.getElementById("search");
```

```
var search = input.value;
```

```
input.value = widget.offsetWidth;
```