**Creating HTML Elements**

Dynamically adding elements to our HTML page is a powerful tool—it lets us modify not only the formatting, but the actual *structure* of our websites in response to a user's actions

**Inserting Elements**

We can insert our newly created elements using a few jQuery actions.

.append() inserts the specified element as the last child of the target element. .prepend() inserts the specified element as the *first* child of the target element. If we have a div of class .info,

$(".info").append("<p>Stuff!</p>");

$(".info").prepend("<p>Stuff!</p>");

we can add a paragraph containing the text "Stuff!" inside all divs of class .info. .append() will make the paragraph the last child of each div; .prepend() will make the paragraph the first child of each div.

**Removing Elements**

Adding elements to our HTML documents is great, but without the ability to remove them, our pages can quickly become cluttered. Thankfully, we have two jQuery functions, **.empty()** and **.remove()**, that help us delete content from our pages.

.empty() deletes an element's content and *all its descendants*. For instance, if you .empty()an 'ol', you'll also remove all its 'li's and their text.

.remove(), not only deletes an element's content, but deletes the element itself.

**Adding and Removing Classes**

We don't have to limit ourselves to adding or removing entire elements, though—we can fine-tune our jQuery superpowers to alter classes, CSS, and even the contents of our HTML elements.

Let's start with classes. jQuery includes two functions, **.addClass()** and **.removeClass()**, that can be used to add or remove a class from an element. This is great if, for example, you have a highlighted class that you want to apply to an element when clicked.

The syntax looks like this:

$('selector').addClass('className');

$('selector').removeClass('className');

where 'selector' is the HTML element you want and 'className' is the class name you want to add or remove.

**Toggling Classes**

What if we want to toggle a class back and forth, though? That is, what if we want jQuery to automatically check to see whether our #text is .highlighted, so that when we click on it, it adds the class if it isn't there and removes it if it is?

As you probably guessed, jQuery includes a **.toggleClass()** function that does exactly this. If the element it's called on has the class it receives as an input, .toggleClass()removes that class; if the target element doesn't have that class, .toggleClass() adds it.

**Changing Your Style**

What if we want to fine-tune individual CSS property values, though? Remember style="height:300px; width:300px;"? jQuery makes it a snap!

jQuery includes a general-purpose **.css()** function that takes two inputs: the first is the CSS element to alter, and the second is the value to set it to. For example:

$("div").css("background-color","#008800");

would give all <div>s on the page a green background color. You can modify any element's CSS attributes this way.

**Modifying Content**

Finally, we can update the contents of our HTML elements—that is, the bit between the opening and closing tags—using the **.html() and text()** functions.

.html() can be used to set the contents of the first element match it finds. For instance,

$('div').html();

will get the HTML contents of the *first* div it finds, and

$('div').html("<p>I love jQuery!</p>");

will set the contents of the first div it finds to the paragraph"I love jQuery!". **text()**  is a function used to get or set the text contents of an element.

**Questions and Exercises**

1. Create a basic web page containing the standard html elements/tags. Insert 4 div boxes. When each box is clicked add a new paragraph (make up content) to the body element.
2. Create a basic web page containing the standard html elements/tags. Insert 4 colored boxes. When the mouse enters any of the boxes they turn black. When the mouse leaves the boxes they turn gray.
3. Add a heading to your web page. When the mouse leaves the heading show its content in an alert box.
4. List all the functions that you learned about in today’s lesson. Next to each one write a short description of how it can be used.
5. Search the internet and list alternative jquery functions to change the height and width of a selected element.
6. **toggleClass()** effectively replaces which two other functions?
7. What is the difference between using the **html()** function with and without a parameter?
8. Look at the following code:

**<div id="Container">**

**<b>Country</b>**

**<input type="text" id="txtCountry" value="England" />**

**</div>**

What does the following display:

**alert("HTML: " + $("#Container").html());**

**alert("Text: " + $("#Container").text());**