# JQUERY Manipulating The POM

# Manipulating The POM

# jQuery can be used to manipulate the POM

add and remove elements
change attributes
update the content of elements

# EXAMPLE 33 DomManipulation.html

Example33Demo

```
<body>
<input id="htmlmarkup">
<div class="updatehtml link">
    Update HTML
</div>
<div class="updatetext link">
    Update text
</div>
<div class="text">
    Loonycorn
</div>
<br/>br>
</body>
```



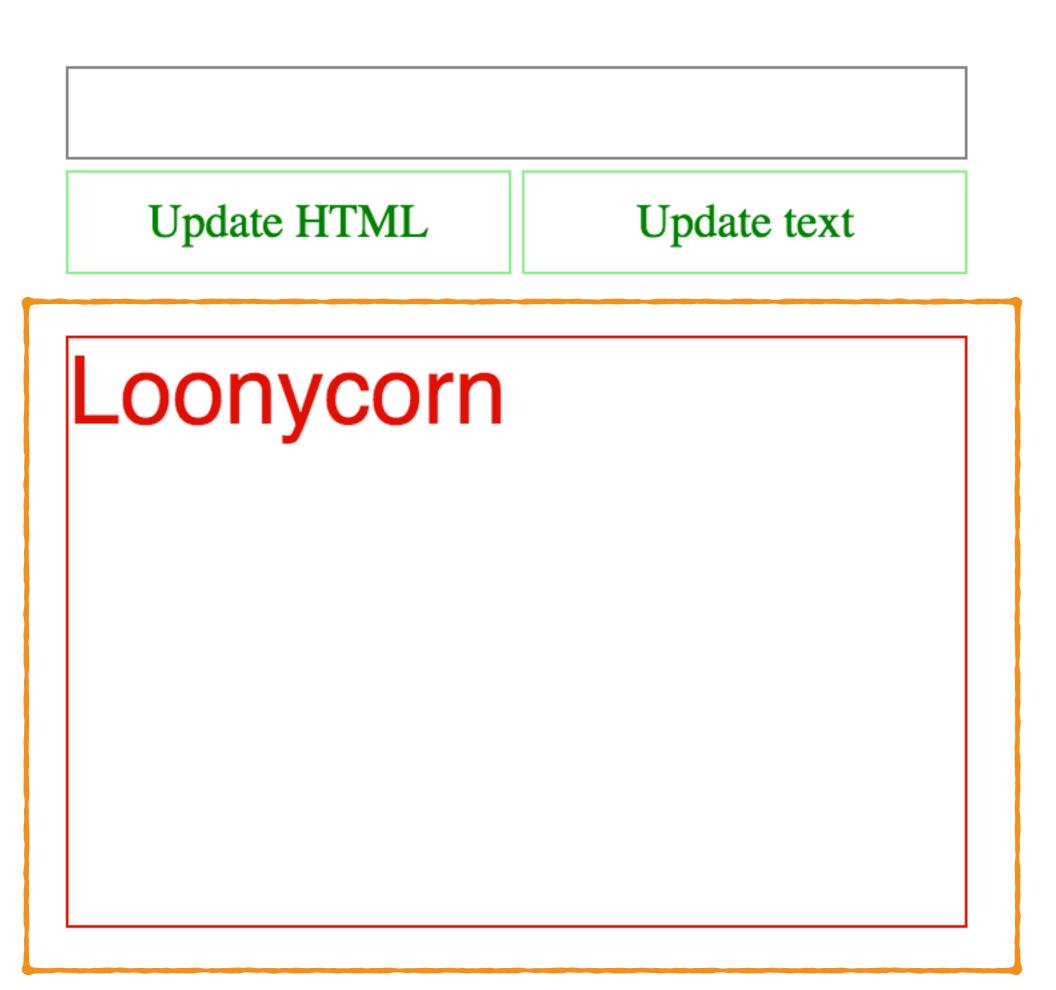
Loonycorn

```
<body>
<input id="htmlmarkup">
<br/>br>
<div class="updatehtml link">
    Update HTML
</div>
<div class="updatetext link">
    Update text
</div>
<div class="text">
    Loonycorn
</div>
<br/>br>
</body>
```



### Loonycorn

```
<body>
<input id="htmlmarkup">
<br/>br>
<div class="updatehtml link">
    Update HTML
</div>
<div class="updatetext link">
    Update text
</div>
<div class="text">
    Loonycorn
</div>
<br/>br>
</body>
```



```
$(document) ready(function () {
    $('.updatehtml').click(function() {
       var htmlMarkup = $('input').val();
       $('.text').html(htmlMarkup);
    });

$('.updatetext').click(function() {
       var htmlMarkup = $('input').val();
       $('.text').text(htmlMarkup);
    });
});
```

# This button sets the HTML content on an element

```
$(document).ready(function () {
    $('.updatehtml').click(function() {
        var htmlMarkup = $('input').val();
        $('.text').html(htmlMarkup);
    });
    $('.updatetext').click(function() {
        var htmlMarkup = $('input').val();
        $('.text').text(htmlMarkup);
    });
});
```

# Extract the user input from the input box

```
$(document).ready(function () {
    $('.updatehtml').click(function()) {
       var htmlMarkup = $('input').val();
       $('.text').html(htmlMarkup);
    });
    $('.updatetext').click(function()) {
       var htmlMarkup = $('input').val();
       $('.text').text(htmlMarkup);
    });
});
```

# Using the vall function

```
$(document).ready(function () {
    $('.updatehtml').click(function() {
        var htmlMarkup = $('input').val();
    $('.text').html(htmlMarkup);
});

$('.updatetext').click(function() {
    var htmlMarkup = $('input').val();
    $('.text').text(htmlMarkup);
});
});
```

# Set the content of the element via the html() function

```
$(document).ready(function () {
    $('.updatehtml').click(function() {
        var htmlMarkup = $('input').val();
    $('.text').html(htmlMarkup);
});

$('.updatetext').click(function() {
    var htmlMarkup = $('input').val();
    $('.text').text(htmlMarkup);
});
});
```

# This parses the HTML markup and sets it correctly as the content

```
$(document).ready(function () {
    $('.updatehtml').click(function() {
       var htmlMarkup = $('input').val();
       $('.text').html(htmlMarkup);
    });
    $('updatetext').click(function() {
       var htmlMarkup = $('input').val();
       $('.text').text(htmlMarkup);
    });
}
```

# The .text() function does not understand HTML

```
$(document).ready(function () {
    $('.updatehtml').click(function() {
       var htmlMarkup = $('input').val();
       $('.text').html(htmlMarkup);
    });

$('updatetext').click(function() {
    var htmlMarkup = $('input').val();
    $('.text').text(htmlMarkup);
    });
});
```

# It escapes the HTML markup in the input as text

# EXAMPLE 34 AttrAndRemoveAttr.html

```
<body>
<div class="add link">
        Add
</div>
<div class="remove link">
        Remove
</div>
<div class="text" id="loonyid" style="color:green; font-size:22px">
        Loonycorn
</div>
<br/>
<br/>
</body>

Add
Remove

LOONYCORN
```

```
<body>
<div class="add link">
        Add
</div>
<div class="remove link">
        Remove
</div>
<div class="text" id="loonyid" style="color:green; font-size:22px">
        Loonycorn
</div>
</br>

Addiv>
```

This is the element on which we add and remove attributes

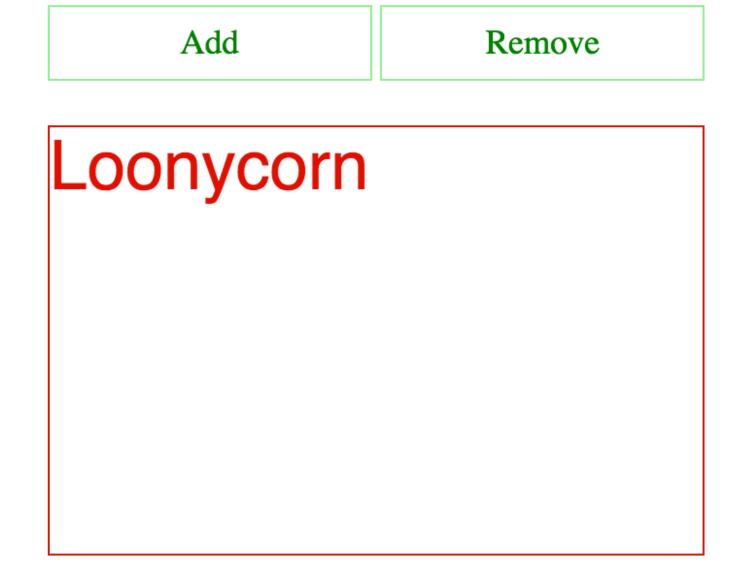
Add Remove

Loonycorn

```
$(document).ready(function () {
    $(' add').click(function() {
        var attributes = $('.text').attr('id');
        console.log(attributes);

    $('.text').attr('id', 'differentid');
    $('.text').attr('title', 'Loonycorn rocks!');
});

$('.remove').click(function() {
    $('#differentid').removeAttr('style');
});
});
```

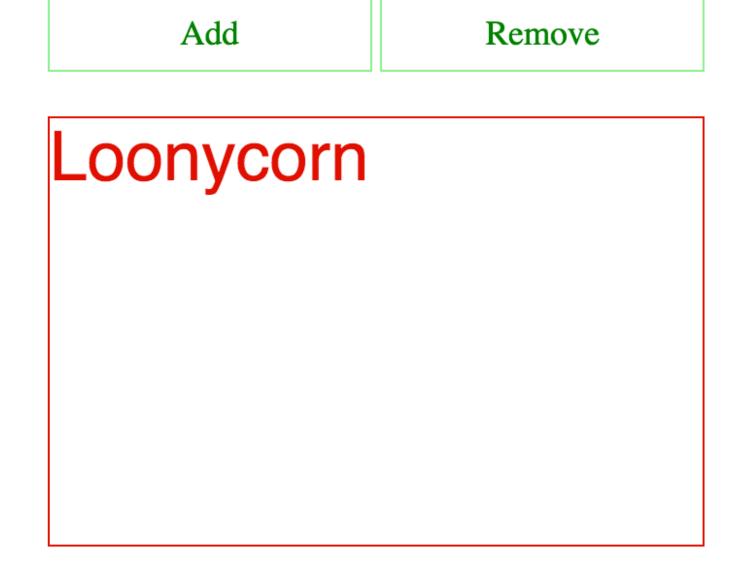


# The add button changes the id and the title attributes of the element

```
$(document).ready(function () {
    $('.add').click(function() {
       var attributes = $('.text').attr('id');
       console.log(attributes);

    $('.text').attr('id', 'differentid');
    $('.text').attr('title', 'Loonycorn rocks!');
});

$('.remove').click(function() {
    $('#differentid').removeAttr('style');
});
});
```

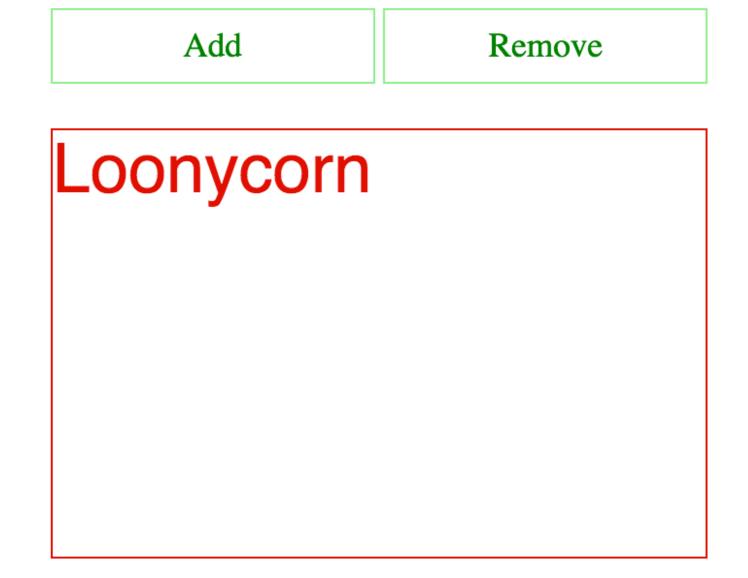


# The id is now differentia

```
$(document).ready(function () {
    $('.add').click(function() {
       var attributes = $('.text').attr('id');
       console.log(attributes);

    $('.text').attr('id', 'differentid');
    $('.text').attr('title', 'Loonycorn rocks!');
    });

$('remove').click(function() {
    $('#differentid').removeAttr('style');
    });
});
```

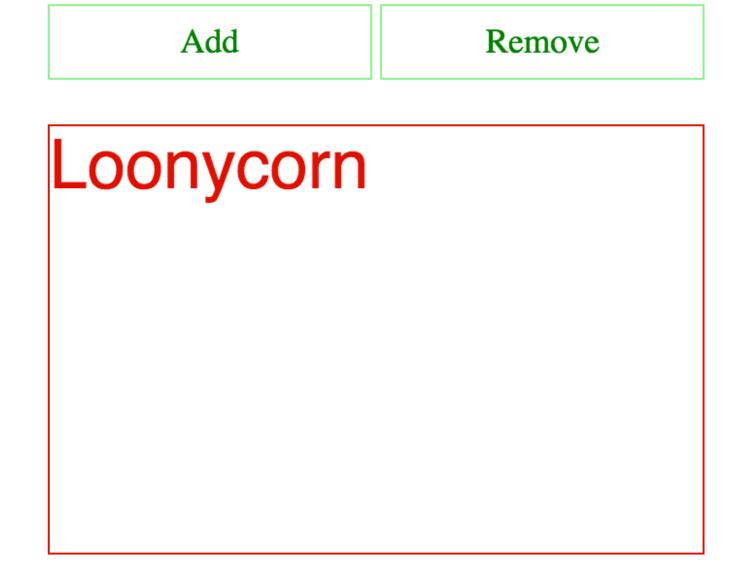


# This is what we use in the remove handler to access the element

```
$(document).ready(function () {
    $('.add').click(function() {
       var attributes = $('.text').attr('id');
       console.log(attributes);

    $('.text').attr('id', 'differentid');
    $('.text').attr('title', 'Loonycorn rocks!');
    });

    $('.remove').click(function() {
       $('#differentid').removeAttr('style');
    });
});
```

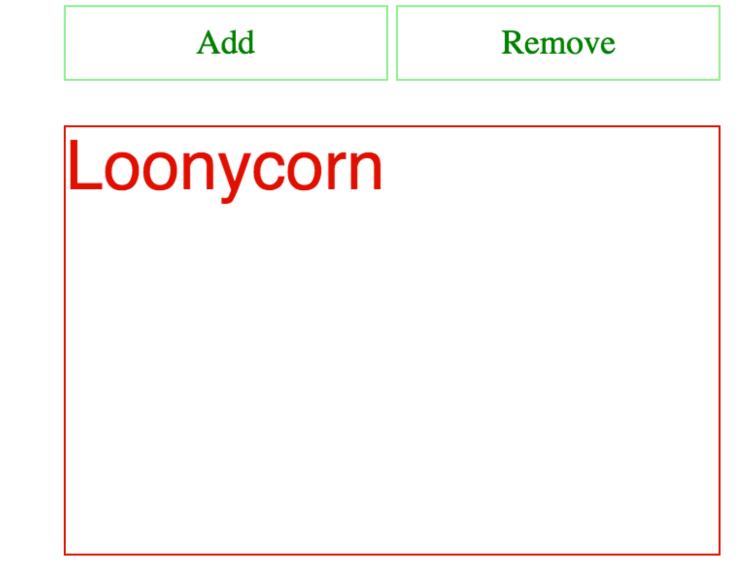


# This removes the style attribute on the element

```
$(document).ready(function () {
    $('.add').click(function() {
       var attributes = $('.text').attr('id');
       console.log(attributes);

    $('.text').attr('id', 'differentid');
    $('.text').attr('title', 'Loonycorn rocks!');
});

$('.remove').click(function() {
    $('#differentid').removeAttr('style');
});
});
```



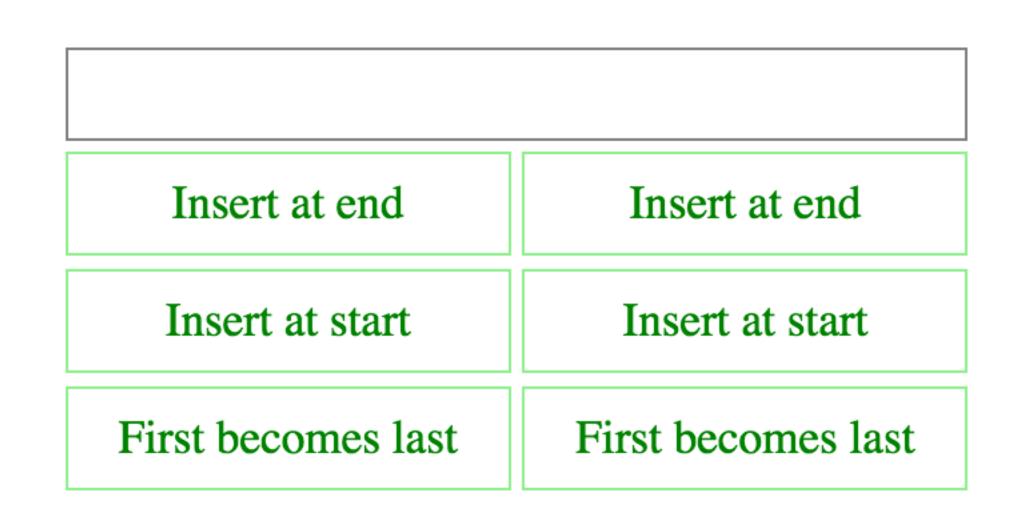
# This removes the explicit green color on the text

Example34Demo all parts

# EXAMPLE 35 AddingDomElements.html

Example35Demo

```
<body>
<input id="userinput">
<br/>br>
<div class="insertAfter link">
    Insert at end
</div>
<div class="after link">
    Insert at end
</div>
<br/>br>
<div class="insertBefore link">
    Insert at start
</div>
<div class="before link">
    Insert at start
</div>
<br/>br>
<div class="appendTo link">
    First becomes last
</div>
<div class="append link">
    First becomes last
</div>
<br/>br>
<div class="text">
    id="contendersList">
        <
            Hillary Clinton
        <
            Donald Trump
        </ul>
</div>
<br/>br>
</body>
</html>
```

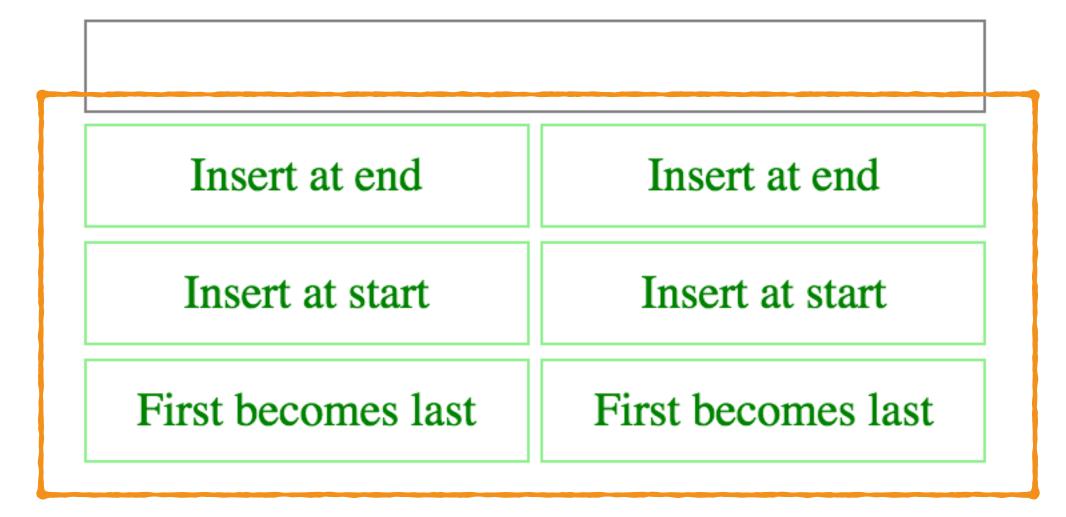


- Hillary Clinton
- Donald Trump

Insert at end	Insert at end
Insert at start	Insert at start
First becomes last	First becomes last

- Hillary Clinton
- Donald Trump

# There are specific functions which allow for each of these actions



- Hillary Clinton
- Donald Trump

# 2 buttons with the same message exist because there are 2 ways to perform each action

```
$(document).ready(function () {
   $('.insertAfter').click(function() {
       var value = $('input').val();
       $('' + value + '').insertAfter('#contendersList li:last');
   });
   $('.after').click(function() {
       var value = $('input').val();
       $('#contendersList li:last').after('' + value + '');
   });
   $('.insertBefore').click(function() {
       var value = $('input').val();
       $('' + value + '').insertBefore('#contendersList li:first');
   });
   $('.before').click(function() {
       var value = $('input').val();
       $('#contendersList li:first').before('' + value + '');
   });
   $('.appendTo').click(function() {
       $('#contendersList li:first').appendTo('#contendersList');
   });
   $('.append').click(function() {
       $('#contendersList').append($('#contendersList li:first'));
   });
});
```

```
$(document).ready(function () {
       $('.insertAfter').click(function() {
          var value = $('input').val();
          $('' + value + '').insertAfter('#contendersList li:last');
       });
We insert a new name in specified
   in the input box after the last
          $('#contenderslist light' lappen To ('#contenderslist');
    });
```

```
$(document).ready(function () {
        $('rinsertAfter').click(function() {
           var value = $('input').val();
           $('' + value + '').insertAfter('#contendersList li:last');
        });
Extractuthe value from the input
        $('.appendTo').click(function) ON $('#contendersList li:fir
    });
```

```
$(document).ready(function () {
      $('.insertAfter').click(function() {
        var value = $('input').val();
        $('' + value + '').insertAfter('#contendersList li:last');
      });
Create a list item with the value
 we just got trom the input box
   });
```

```
$(document).ready(function () {
    $('.insertAfter').click(function() {
        var value = $('input').val();
        $('' + value + '').insertAfter('#contendersList li:last');
});

$('.after').click(function() {
        var value = $('input').val();
        $('#contendersList li:last').after('' + value + '');
});

$('.insertBefore').click(function() {
        var value = $('input').val();
        $('' + value + '').insertBefore('#contendersList li:first')
```

# jQuery allows us to create items on the fly using the \$ selector!

```
$('#contendersList').append($('#contendersList li:first'));
});
```

```
$(document).ready(function () {
    $('.insertAfter').click(function() {
       var value = $('input').val();
       $('' + value + '').insertAfter('#contendersList li:last');
});

$('.after').click(function() {
    var value = $('input').val();
    $('#contendersList li:last').after('' + value + '');
});
```

# Insert the newly created element after the last item in the list (so it becomes to the new last item)

\$('#contendersList').append(\$('#contendersList l
});
});

```
$(document).ready(function () {
                                                              $('.insertAfter').click(function() {
                                                                                      var value = $('input').val();
                                                                                      $('' + value + '').insertAfter(| #contendersList li:last|);
                                                             });
li:lastis a quick way to select the
                                                                                   var value = $('input').val();
$('lasus en la lasus en 
                                                                                                                                    #contenderslist
                                     });
```

```
$(document).ready(function () {
    $('.insertAfter').click(function() {
       var value = $('input').val();
       $('' + value + '').insertAfter('#contendersList li:last');
    });
insertAfter inserts an element
    relative to other elements
  });
```

```
$(document).read/AddingPomElements.html
      $('.after').click(function() {
         var value = $('input').val();
         $('#contendersList li:last').after('' + value + '');
      });
This is another way to accomplish
```

```
$(document).readyAddingPomElements.html
       $('.after').click(function() {
         var value = $('input').val();
          $('#contendersList li:last').after('' + value + '');
       });
   Select the element relative to
which we place the newly created
                     eement
     });
```

```
$(document).readyAddingPomElements.html
      $('.after').click(function() {
        var value = $('input').val();
$('#contendersList li:last').after('' + value + '');
     });
Use the after() function rather
  than the insert After()
```

```
$(document).readyAddingPomElements.html
    $('.after').click(function() {
        var value = $('input').val();
        $('#contendersList li:last').after('' + value + '');
    });
    *('#contendersList li:first').appendTo('#contendersList');
*Create the New Element

*Greate the New Element
});
```

```
$('.after').cAddingPomElements.html
var value = $('input').val();
    $('.insertBefore').click(function() {
        var value = $('input').val();
        $('' + value + '').insertBefore('#contendersList li:first');
    });
    $('.before').click(function() {
        var value = $('input').val();
        $('#contendersList li:first').before('' + value + '');
    });
});
```

## The insertBefore() and before() functions work in similar ways

```
$('.after').cAddingPomElements.html
var value = $('input').val();
    $('.insertBefore').click(function() {
       var value = $('input').val();
       $('' + value + '').insertBefore('#contendersList li:first');
    $('.before').click(function() {
        var value = $('input').val();
        $('#contendersList li:first').before('' + value + '');
   });
});
```

## Create the element and insert it before the first element in the list

```
$('.after').claddinghomElements.html
var value = $('input').val();
    $('.insertBefore').click(function() {
        var value = $('input').val(');
        $('' + value + '').insertBefore(|#contendersList li:first');
    });
    $('.before').click(function() {
        var value = $('input').val();
        $('#contendersList li:first').before('' + value + '');
    });
});
```

### Create the element and insert it before the first element in the list

```
$('.after').claddinghomElements.html
var value = $('input').val();
    $('.insertBefore').click(function() {
        var value = $('input').val();
        $('' + value + '').insertBefore('#contendersList li:first');
    });
    $('.before').click(function() {
        var value = $('input').val();
       $('#contendersList li:first').before('' + value + '');
    });
});
```

## Select the first element and have the new element before it

```
$('.after').cAddingNomElements.html
var value = $('input').val();
    $('.insertBefore').click(function() {
        var value = $('input').val();
        $('' + value + '').insertBefore('#contendersList li:first');
    });
    $('.before').click(function() {
        var value = $('input').val();
        $('#contendersList li:first').before('' + value + '');
    });
});
```

## Select the first element and have the new element before it

```
});
$('.before') Adding PowElements.html
var value = $('input').val();
$('#contendersList li:first').before(''+ value + '');

$('.appendTo').click(function() {
    $('#contendersList li:first').appendTo('#contendersList');
});

$('.append').click(function() {
    $('#contendersList').append($('#contendersList li:first'));
});
});
```

# There are exact equivalent methods for append() and prepend()

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```

## append() and appendTo()

## prepend() and prepend To()

## In this code we do not create any new elements

```
});
$('.before') Adding PomElements.html
var value = $('input').val();
$('#contendersList li:first').before(''+ value + '');
$('.appendTo').click(function() {
    $('#contendersList li:first').appendTo('#contendersList');
});
$('.append').click(function() {
    $('#contendersList').append($('#contendersList li:first'));
});
});
```

# This takes the first element and appends it to the end of the list

```
});
$('.before') Adding PomElements.html
var value = $('input').val();
$('#contendersList li:first').before(''+ value + '');
$('#contendersList li:first').appendTo('#contendersList');
});
$('.append').click(function() {
    $('#contendersList').append($('#contendersList li:first'));
});
});
```

### Select the first element

```
});
$('.before') Adding PomElements.html
    var value = $('input').val();
    $('#contendersList li:first').before(''+ value + '');

$('.appendTo').click(function() {
    $('#contendersList li:first').appendTo('#contendersList');

});

$('.append').click(function() {
    $('#contendersList').append($('#contendersList li:first'));

});

});

});
```

## Append i.e. add it to the end of the list

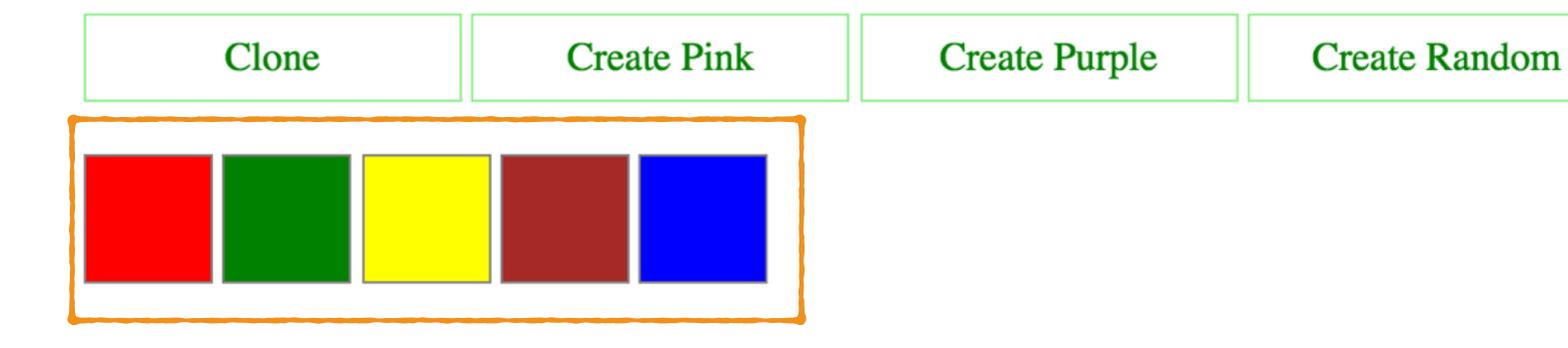
```
});
$('.before') Adding PomElements.html
    var value = $('input').val();
    $('#contendersList li:first').before(''+ value + '');
$('.appendTo').click(function() {
    $('#contendersList li:first').appendTo('#contendersList');
});
$('.append').click(function() {
    $('#contendersList').append($('#contendersList li:first'));
});
});
```

# The same action expressed in a slightly different way

## EXAMPLE 36 CloningAndCreatingElements.html

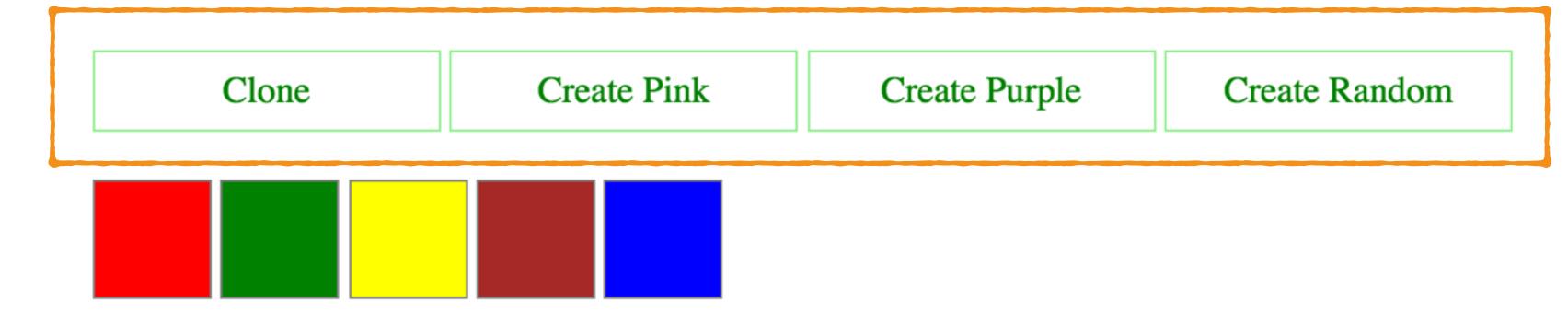
Example36Demo

```
<body>
<div class="clone link">
    Clone
</div>
<div class="createpink link">
    Create Pink
</div>
<div class="createpurple link">
    Create Purple
</div>
<div class="createrandom link">
    Create Random
</div>
<br/>br>
<hr>
<div id="colorboxes">
    <div class="red box">
    </div>
    <div class="green box">
    </div>
    <div class="yellow box">
    </div>
    <div class="brown box">
    </div>
    <div class="blue box">
    </div>
</div>
<br/>br>
</body>
```



## A whole bunch of colored boxes

```
<body>
<div class="clone link">
    Clone
</div>
<div class="createpink link">
    Create Pink
</div>
<div class="createpurple link">
    Create Purple
</div>
<div class="createrandom link">
    Create Random
</div>
<br/>br>
<br/>br>
<div id="colorboxes">
    <div class="red box">
    </div>
    <div class="green box">
    </div>
    <div class="yellow box">
    </div>
    <div class="brown box">
    </div>
    <div class="blue box">
    </div>
</div>
<br/>br>
</body>
```



# Clone and create new ones, with specific colors or at random

```
$(document).ready(function () {
    var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
    $('.clone').click(function() {
        var className = classNames[Math.floor(Math.random() * classNames.length)];
        $(className).first().clone().appendTo($('#colorboxes'));
    });
    $('.createpink').click(function() {
        var jqEl = $('<div class="pink box"></div>');
        $('#colorboxes').append(jqEl);
    });
    $('.createpurple').click(function() {
        $('#colorboxes').append($('<div class="purple box"></div>'));
    });
    $('.createrandom').click(function() {
        var className = classNames[Math.floor(Math.random() * classNames.length)];
        className = className.substr(1);
        $('#colorboxes').append($('<div></div>', {
            'class': className + ' box'
        }));
    });
});
```

```
var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
    $('.clone').click(function() {
       var className = classNames[Math.floor(Math.random() * classNames.length)];
       $(className).first().clone().appendTo($('#colorboxes'));
    });
Cone an existent box e ement to
```

```
var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
   $('.clone').click(function() {
      var className = classNames[Math.floor(Math.random() * classNames.length)];
      $(className).first().clone().appendTo($('#colorboxes'));
   });
An array cotanglass manes for the
```

```
var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
      $('_clone').click(function() {
          var className = classNames[Math.floor(Math.random() * classNames.length)];
         $(className).first().clone().appendTo($('#colorboxes'));
      });
Choose one of the class names at
         $('#colorboxes').append($('<div></div>', {
    'class': className + 2x100011
}));
```

```
var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
    $('.clone').click(function() {
       var className = classNames[Math.floor(Math.random() * classNames.length)];
        $(className).first().clone().appendTo($('#colorboxes'));
    });
Selectians [Math.floor(Math.random() * classNames.length)];
Selectians existing element which
has that class applied and clone it
```

```
var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
     $('.clone').click(function() {
        var className = classNames[Math.floor(Math.random() * classNames.length)];
        $(className).first().clone().appendTo($('#colorboxes'));
     });
An existing element which has the
                       class applied
```

```
var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
    $('.clone').click(function() {
       var className = classNames[Math.floor(Math.random() * classNames.length)];
       $(className).first().clone().appendTo($('#colorboxes'));
    });
The first of the selected elements
```

```
var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
$('.clone').click(function() {
                                 var className = classNames[Math.floor(Math.random() * classNames.length)];
                                 $(className).first().clone().appendTo($('#colorboxes'));
});
                      className = ctassname.e.
$('#colorboxes').append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).append($(\div></div>).ap
```

```
var classNames = ['.red', '.green', '.yellow', '.brown', '.blue'];
$('.clone').click(function() {
    var className = classNames[Math.floor(Math.random() * classNames.length)];
    $(className).first().clone().appendTo($('#colorboxes'));
});
Applendable (Clone to the outer assumes (Math. random() * classNames.length)];

Applendable (Clone to the outer)
```

```
Cloning And Greating Elements. html. Names. Length)];
$('.createpink').click(function() {
   var jqEl = $('<div class="pink box"></div>');
   $('#colorboxes').append(jqEl);
});
```

## Create a new pink box to add to the POM

## Cloning And Greating Elements. html Names. Length)]; \$('createpink').click(function() { var jqEl = \$('<div class="pink box"></div>'); \$('#colorboxes').append(jqEl); });

# Create an element on the fly-just specify the HTML as you would a selector

## Cloning And Creating Elements. html. names. length); \$('createpink').click(function() { var jqEl = \$('<div class="pink box"></div>'); \$('#colorboxes').append(jqEl); });

Assign it to a variable - the element has been created but not added to the POM yet

## Cloning And Creating Elements. html Names. Length)]; \$('.createpink').click(function() { var jqEl = \$('<div class="pink"box"></div>'); \$('#colorboxes').append(jqEl); });

## Append the element to POM

```
$('.createpurple').click(function() {
    $('#colorboxes').append($('<div class="purple box"></div>'));
});

$('.createrandom').click(function() {
    var className = classNames[Math.floor(Math.random() * classNames.length)];
    className = className.substr(1);
    $('#colorboxes').append($('<div></div>', {
        'class': className + 'box'
    }));
});
});
```

# A more concise way to create and append an element to DOM

```
$('.createrandom').click(function() {
   var className = classNames[Math.floor(Math.random() * classNames.length)];
   className = className.substr(1);
   $('#colorboxes').append($('<div></div>', {
        'class': className + ' box'
   }));
});
```

# Create an element and specify its attributes dynamically

```
$('.createrandom').click(function() {
    var className = classNames[Math.floor(Math.random() * classNames.length)];
    className = className.substr(1);
    $('#colorboxes').append($('<div></div>', {
        'class': className + ' box'
    }));
});
```

## Choose a class name at random (a random colored box)

```
$('.createrandom').click(function() {
  var className = classNames[Math.floor(Math.random() * classNames.length)];
  className = className.substr(1);
  $('#colorboxes').append($('<div></div>', {
    'class': className + ' box'
}));
```

### Append a div with this class name

```
$('.createrandom').click(function() {
   var className = classNames[Math.floor(Math.random() * classNames.length)];
   className = className.substr(1);
   $('#colorboxes').append($('<div></div>', {
        'class': className + ' box'
   });
});
```

## Specify the attributes applied to the <div> in the form of a properties object

#### EXAMPLE 37

#### RemoveDetachEmptyElements.html

### Events can be removed from the DOM in 2 ways

#### 

## This removes the element from the DOM and also removes all event handlers!



This removes the element from the DOM and also removes all event handlers!

If you re-attach the element then the original event handlers will no longer exist

### Events can be removed from the DOM in 2 ways

#### 

### This removes the element from the DOM but preserves the event handlers which exist on the element

#### 

This removes the element from the DOM but preserves the event handlers which exist on the element

If you re-add the element then we get back its original state complete with event handlers

### Events can be removed from the DOM in 2 ways

#### It's often useful to remove/ detach elements from the DOM before manipulation changes on the element

## This avoids the very expensive re-rendering of the page when the changes are made

#### 

#### 

This avoids the very expensive re-rendering of the page when the changes are made

Once changes are complete you can add it back leading to a one time render - this is much more performant

Example37Demo

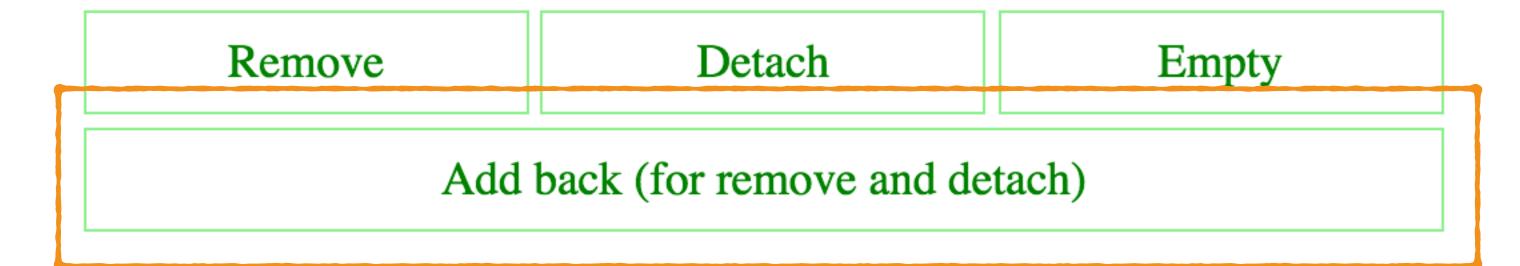
```
<body>
<div class="remove link">
    Remove
</div>
<div class="detach link">
    Detach
</div>
<div class="empty link">
    Empty
</div>
<br/>br>
<div class="link add">
    Add back (for remove and detach)
</div>
<br/>br>
<br/>br>
<div id="container">
    <div class="box">
        <i>Loonycorn rocks!</i>
    </div>
</div>
<br/>br>
</body>
```

Remove Detach Empty

Add back (for remove and detach)

Loonycorn rocks!

```
<body>
<div class="remove link">
    Remove
</div>
<div class="detach link">
    Detach
</div>
<div class="empty link">
    Empty
</div>
<br/>br>
<div class="link add">
    Add back (for remove and detach)
</div>
<br/>br>
<div id="container">
    <div class="box">
        <i>Loonycorn rocks!</i>
    </div>
</div>
<br/>br>
</body>
```



Loonycorn rocks!

```
<body>
<div class="remove link">
    Remove
</div>
<div class="detach link">
    Detach
</div>
<div class="empty link">
    Empty
</div>
<br/>br>
<div class="link add">
    Add back (for remove and detach)
</div>
<br/>br>
<div id="container">
    <div class="box">
        <i>Loonycorn rocks!</i>
    </div>
</div>
</body>
```

Remove Detach Empty

Add back (for remove and detach)

Loonycorn rocks!

```
$(document).ready(function () {
    var el = $('.box');
    el.click(function() {
        alert('Click event! And Loonycorn rocks!');
   });
    $('.remove').click(function() {
        el = $('.box').remove();
    });
    $('.detach').click(function() {
        el = $('.box').detach();
    });
    $('.empty').click(function() {
        $('.box').empty();
    });
    $('.add').click(function() {
        $('#container').append(el);
```

# All actions which apply to the element with the box class applied

```
$(document).ready(function () {
    var el = $('.box');
    el.click(function() {
        alert('Click event! And Loonycorn rocks!');
   });
});
```

# Store a reference to the element which is to be acted on

```
$(document).ready(function () {
    var el = $('.box');
    el.click(function() {
        alert('Click event! And Loonycorn rocks!');
   });
});
```

# Add an alert on click, any event handler works as well for this

```
$(document).ready(function () {
    $('.remove').click(function() {
        el = $('.box').remove();
   });
    $('.detach').click(function() {
        el = $('.box').detach();
    });
});
```

# remove() and detach() are functions on the jQuery object

```
$(document).ready(function () {
       .remove').click(function() {
        el = $('.box').remove();
   });
    $('.detach').click(function() {
        el = $('.box').detach();
});
```

#### Store a reference to the jQuery object which was removed from the POM

We'll need it to add it back

```
$(document).ready(function () {
    $('.empty').click(function() {
        $('.box').empty();
   });
});
```

#### The empty() function just removes all the content within the selected element

```
$(document).ready(function () {
    $('.empty').click(function() {
        $('.box').empty();
    });
});
```

#### It does not remove the element itself

```
$(document).ready(function () {
    $('.add').click(function() {
        $('#container').append(el);
```

# The add button simply adds the element back to the POM using append()

```
$(document).ready(function () {
    var el = $('.box');
    el.click(function() {
        alert('Click event! And Loonycorn rocks!');
   });
    $('.remove').click(function() {
        el = $('.box').remove();
    });
    $('.detach').click(function() {
        el = $('.box').detach();
    });
    $('.empty').click(function() {
        $('.box').empty();
   });
    $('.add').click(function() {
        $('#container').append(el);
```

#### The event handlers are preserved in the case of detach() but not in the case of remove()

### EXAMPLE 38 WrapAndWrapAll.html

Example38Demo

```
<body>
<div class="wrap link">
    Wrap
</div>
<div class="wrapall link">
    Wrap All
</div>
<br/>br>
<br/>br>
<div id="container">
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
</div>
<br/>br>
</body>
```

Wrap

Wrap All

Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!

```
$(document).ready(function () {
    $('.wrap').click(function() {
        $('.box').wrap('<div class="outer-box"></div>');
    });

$('.wrapall').click(function() {
        $('.box').wrapAll('<div class="outer-box"></div>');
    });
});
```

# The wrap() function wraps each selected element with the HTML specified

```
<body>
<div class="wrap link">
    Wrap
</div>
<div class="wrapall link">
    Wrap All
</div>
<br/>br>
<br/>br>
<div id="container">
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
</div>
<br/>br>
</body>
```

```
$(document).ready(function () {
    $('.wrap').click(function() {
        $('.box').wrap('<div class="outer-box"></div>');
    });

$('.wrapall').click(function() {
        $('.box').wrapAll('<div class="outer-box"></div>');
    });
});
```

#### Select elements with the box class applied and wrap each with HTML

```
<body>
<div class="wrap link">
    Wrap
</div>
<div class="wrapall link">
    Wrap All
</div>
<br/>br>
<br/>br>
<div id="container">
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
</div>
<br/>br>
</body>
```

```
$(document).ready(function () {
    $('.wrap').click(function() {
        $('.box').wrap('<div class="outer-box"></div>');
});

$('.wrapall').click(function() {
        $('.box').wrapAll('<div class="outer-box"></div>');
});
});
```

Each element gets the outer-box as a wrapper

```
$(document).ready(function () {
    $('.wrap').click(function() {
        $('.box').wrap('<div class="outer-box"></div>');
});

$('.wrapall').click(function() {
        $('.box').wrapAll('<div class="outer-box"></div>');
});
});
```

Each element gets the outer-box as a wrapper

```
$(document).ready(function () {
    $('.wrap').click(function() {
        $('.box').wrap('<div class="outer-box"></div>');
    });

$('.wrapall').click(function() {
        $('.box').wrapAll('<div class="outer-box"></div>');
});
});
```

# The wrapAll() method adds the HTML as the parent of all the selected elements

```
<body>
<div class="wrap link">
    Wrap
</div>
<div class="wrapall link">
    Wrap All
</div>
<br/>br>
<br/>br>
<div id="container">
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
</dl>
<br/>br>
</body>
```

```
$(document).ready(function () {
    $('.wrap').click(function() {
        $('.box').wrap('<div class="outer-box"></div>');
    });
    $('.wrapall').click(function() {
        $('.box').wrapAll('<div class="outer-box"></div>');
});
            <div id="container">
              <div class="outer-box">
                <div class="box">
                    Loonycorn rocks!
                </div>
                <div class="box">
                   Loonycorn rocks!
                </div>
                <div class="box">
                    Loonycorn rocks!
                </div>
                <div class="box">
                    Loonycorn rocks!
                </div>
              </div>
            </div>
```

# All the elements with the box class applied gets the outer-box as a wrapper

### EXAMPLE 39 Each.html

Example39Demo

```
<body>
<div class="each link">
    Each
</div>
<br/>br>
<br/>br>
<div id="container">
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
    <div class="box">
        Loonycorn rocks!
    </div>
</div>
<br/>br>
</body>
```

#### Each

Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!

```
$(document).ready(function () {
    $('.each').click(function()) {
     $('.box').each(function()) {
        $(this).addClass('outer-box');
    });
});
```

## The .each() function is an explicit iteration over all the selected elements

#### Each

Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!

```
$(document).ready(function () {
    $('.each').click(function()) {
        $('.box').each(function()) {
        $(this).addClass('outer-box');
      });
});
```

#### Each

Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!

### Add the outer-box class to each selected element

```
$(document).ready(function () {
    $('.each').click(function()) {
        $('.box').each(function()) {
        $(this).addClass('outer-box');
     });
});
```

### \$(this) refers to each selected element in turn

#### Each

Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!
Loonycorn rocks!