

## Cheat Sheet for comprehensive jQuery

### Basic Syntax and Selectors

#### - Basic Syntax:

```
$(selector).action();
```

- ` \$ ` is an alias for jQuery.
- ` selector ` is used to "query (or find)" HTML elements.
- ` action() ` is the jQuery method to be performed on the element(s).

#### - Common Selectors:

- **Element Selector:** ` \$('element') `
- **ID Selector:** ` \$('#id') `
- **Class Selector:** ` \$('.class') `
- **Multiple Selectors:** ` \$('selector1, selector2') `
- **Descendant Selector:** ` \$('parent child') `
- **Direct Child Selector:** ` \$('parent > child') `
- **Attribute Selector:** ` \$('[attribute=value]') `

### DOM Manipulation

#### - Get Content:

- **Text:** ` \$('selector').text() `
- **HTML:** ` \$('selector').html() `
- **Value:** ` \$('selector').val() `

#### - Set Content:

- **Text:** ` \$('selector').text('new text') `
- **HTML:** ` \$('selector').html('<b>new html</b>') `
- **Value:** ` \$('selector').val('new value') `

#### - Add Elements:

- **Append:** ``$('selector').append('content')``
- **Prepend:** ``$('selector').prepend('content')``
- **After:** ``$('selector').after('content')``
- **Before:** ``$('selector').before('content')``
- **Remove Elements:**
  - **Remove:** ``$('selector').remove()``
  - **Empty:** ``$('selector').empty()``
- **Clone Elements:**
  - **Clone:** ``$('selector').clone()``

### Event Handling

- **Common Events:**
  - **Click:** ``$('selector').click(function() { ... })``
  - **Double Click:** ``$('selector').dblclick(function() { ... })``
  - **Mouse Enter:** ``$('selector').mouseenter(function() { ... })``
  - **Mouse Leave:** ``$('selector').mouseleave(function() { ... })``
  - **Key Press:** ``$('selector').keypress(function() { ... })``
  - **Form Submit:** ``$('form').submit(function(event) { ... })``
- **Event Delegation:**
  - **On:** ``$('selector').on('event', 'childSelector', function() { ... })``
- **Trigger Events:**
  - **Trigger:** ``$('selector').trigger('event')``

### Effects and Animations

- **Basic Effects:**
  - **Hide:** ``$('selector').hide()``
  - **Show:** ``$('selector').show()``
  - **Toggle:** ``$('selector').toggle()``

- **Fading:**
  - **Fade In:** ``$('selector').fadeIn()``
  - **Fade Out:** ``$('selector').fadeOut()``
  - **Fade Toggle:** ``$('selector').fadeToggle()``
  - **Fade To:** ``$('selector').fadeTo(speed, opacity)``
- **Sliding:**
  - **Slide Down:** ``$('selector').slideDown()``
  - **Slide Up:** ``$('selector').slideUp()``
  - **Slide Toggle:** ``$('selector').slideToggle()``
- **Custom Animations:**
  - **Animate:** ``$('selector').animate({params}, speed, callback)``

## AJAX

- **Load Data:**
  - **Load:** ``$('selector').load('url', data, callback)``
- **Get Data:**
  - **Get:** ``$.get('url', data, callback)``
- **Post Data:**
  - **Post:** ``$.post('url', data, callback)``
- **AJAX Setup:**
  - **Global Settings:** ``$.ajaxSetup({settings})``
- **AJAX Request:**
  - **AJAX:** ``$.ajax({settings})``

## Utilities

- **Each Loop:**
  - **Each:** ``$('selector').each(function(index, element) { ... })``
- **Data Storage:**

- **Data:** ``$('selector').data('key', 'value')``
- **Remove Data:** ``$('selector').removeData('key')``
- **Deferred Objects:**
  - **Deferred:** ``var dfd = $.Deferred()```
  - **Resolve:** ``dfd.resolve()```
  - **Reject:** ``dfd.reject()```
  - **Promise:** ``dfd.promise()```

### Plugins and Extensions

#### - Plugin Structure:

```
(function($) {
  $.fn.pluginName = function(options) {
    var settings = $.extend({
      // default options
    }, options);
    return this.each(function() {
      // plugin code
    });
  };
})(jQuery);
```

#### - Common Plugins:

- **jQuery UI:** ``https://jqueryui.com/``
- **DataTables:** ``https://datatables.net/``
- **Select2:** ``https://select2.org/``

### Tips and Tricks

#### - Chainability:

- Methods can be chained together: ``$('selector').method1().method2()```

#### - Context:

- Use ``context`` parameter for more efficient selection: ``$('selector', context)```

#### - Performance:

- Cache selectors for better performance: ``var $selector = $('selector')``
- **Debugging:**
  - Use ``console.log()`` to debug jQuery code.
- **Best Practices:**
  - Always use ``$(document).ready(function() { ... })`` to ensure DOM is fully loaded.
  - Minimize DOM manipulation for better performance.

## Examples

### - **Basic Example:**

```
$(document).ready(function() {  
  $('button').click(function() {  
    $('p').hide();  
  });  
});
```

### - **AJAX Example:**

```
$(document).ready(function() {  
  $('button').click(function() {  
    $.get('test.php', function(data) {  
      $('#result').html(data);  
    });  
  });  
});
```

### - **Animation Example:**

```
$(document).ready(function() {  
  $('button').click(function() {  
    $('div').animate({left: '250px'}, 1000);  
  });  
});
```

## Conclusion

This cheat sheet covers the essential aspects of jQuery, from basic syntax and selectors to advanced topics like AJAX and plugin development. By mastering these concepts, you can efficiently manipulate the DOM, handle events, and create dynamic web applications.

By Ahmed Baheeg Khorshid

ver 1.0