

## Selectors in jQuery

These are powerful tools for selecting HTML elements from the DOM (Document Object Model) so that you can manipulate or interact with them using jQuery methods. Selectors are similar to CSS selectors and allow you to target elements based on their tag name, class, ID, attributes, or relationship with other elements.

Here are some common types of selectors in jQuery:

### ### 1. Tag Selector:

Selects all elements with a specific tag name.

```
```javascript
$('p') // Selects all <p> elements
```
```

### ### 2. Class Selector:

Selects all elements with a specific class.

```
```javascript
$('.classname') // Selects all elements with class="classname"
```
```

### ### 3. ID Selector:

Selects a single element with a specific ID.

```
```javascript
$('#elementID') // Selects the element with id="elementID"
```
```

### ### 4. Attribute Selector:

Selects elements based on their attributes.

```
```javascript
$('[attribute="value"]') // Selects elements with a specific attribute value
```
```

### ### 5. Descendant Selector:

Selects all elements that are descendants of a specified parent element.

```
```javascript
$('parentElement descendantElement') // Selects descendant elements of parentElement
```
```

### ### 6. Child Selector:

Selects all direct children of a specified parent element.

```
```javascript
$('parentElement > childElement') // Selects direct children of parentElement
```
```

### ### 7. :first Selector:

Selects the first matched element.

```
```javascript
$('selector:first') // Selects the first matched element
```
```

### ### 8. :last Selector:

Selects the last matched element.

```
```javascript
$('selector:last') // Selects the last matched element
```
```

### ### Example:

```
```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>jQuery Selectors Example</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<script>
$(document).ready(function() {
  // Tag Selector
  $('p').css('color', 'blue'); // Selects all <p> elements and changes their text color to blue

  // Class Selector

```

`$('.highlight').css('font-weight', 'bold');` // Selects all elements with class="highlight" and makes their text bold

// ID Selector

`$('#main-heading').css('font-size', '24px');` // Selects the element with id="main-heading" and changes its font size

// Attribute Selector

`$('[href]').css('color', 'green');` // Selects elements with a href attribute and changes their text color to green

// Descendant Selector

`$('#container p').css('background-color', 'yellow');` // Selects <p> elements that are descendants of #container and changes their background color to yellow

// Child Selector

`$('#menu > li').css('border', '1px solid black');` // Selects <li> elements that are direct children of #menu and adds a border

`});`

`</script>`

`</head>`

`<body>`

`<p>Paragraph 1</p>`

`<p>Paragraph 2</p>`

`<p>Paragraph 3</p>`

`<div class="highlight">Highlighted Div</div>`

`<div>Normal Div</div>`

`<h1 id="main-heading">Main Heading</h1>`

`<h2>Subheading</h2>`

`<a href="#">Link 1</a>`

`<a>Link 2</a>`

`<div id="container">`

`<p>Descendant Paragraph 1</p>`

`<p>Descendant Paragraph 2</p>`

`</div>`

`<ul id="menu">`

`<li>Item 1</li>`

`<li>Item 2</li>`

```
</ul>
```

```
</body>
```

```
</html>
```

```
```
```

In this example:

- Different types of selectors are demonstrated, along with jQuery methods to manipulate the selected elements.
- jQuery is used to apply CSS styles to various elements based on their selectors.

### Example2:

Sure! Here's another example demonstrating more jQuery selectors and their usage:

```
```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>More jQuery Selectors Example</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<script>
$(document).ready(function() {
    // Attribute Starts With Selector
    $('input[name^="user"]').css('border-color', 'blue'); // Selects input elements with name starting
    with "user" and changes their border color to blue

    // Attribute Ends With Selector
    $('a[href$=".pdf"]').addClass('pdf-link'); // Selects anchor elements with href ending with ".pdf"
    and adds a class "pdf-link" to them

    // Attribute Contains Selector
    $('[title*="example"]').css('font-style', 'italic'); // Selects elements with title containing the word
    "example" and applies italic font style

    // :even Selector
    $('tr:even').css('background-color', '#f2f2f2'); // Selects even table rows and changes their
    background color

    // :odd Selector
    $('tr:odd').css('background-color', '#e6e6e6'); // Selects odd table rows and changes their
    background color

    // :checked Selector
```

```
    $('input[type="checkbox"]:checked').siblings('label').css('color', 'green'); // Selects checked checkboxes and changes the color of their labels to green
```

```
});
```

```
</script>
```

```
<style>
```

```
.pdf-link {
```

```
    color: red;
```

```
    font-weight: bold;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<input type="text" name="username" placeholder="Username">
```

```
<input type="text" name="email" placeholder="Email">
```

```
<a href="document1.pdf">Document 1</a>
```

```
<a href="document2.docx">Document 2</a>
```

```
<a href="document3.pdf">Document 3</a>
```

```
<p title="example paragraph">Example Paragraph</p>
```

```
<p>Normal Paragraph</p>
```

```
<table border="1">
```

```
    <tr><td>Row 1</td></tr>
```

```
    <tr><td>Row 2</td></tr>
```

```
    <tr><td>Row 3</td></tr>
```

```
</table>
```

```
<input type="checkbox" id="checkbox1" checked><label for="checkbox1">Checkbox 1</label>
```

```
<input type="checkbox" id="checkbox2"><label for="checkbox2">Checkbox 2</label>
```

```
</body>
```

```
</html>
```

```
...
```

In this example:

- Additional jQuery selectors are demonstrated, including attribute starts with (`^=`), attribute ends with (`$=`), attribute contains (`*=`), `:even`, `:odd`, and `:checked` selectors.
- Different types of elements such as input fields, anchors, paragraphs, table rows, and checkboxes are targeted using jQuery selectors.
- Various CSS styles are applied to the selected elements based on their selectors.