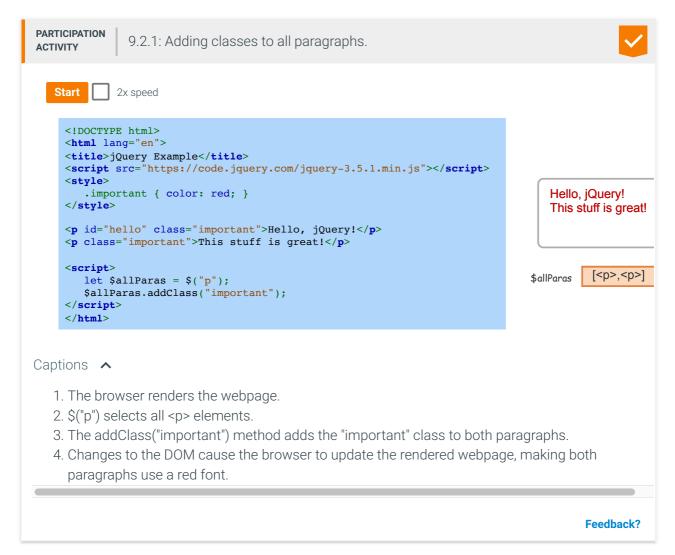
9.2 Selectors

Basic selectors

The \$() function is used to select DOM elements using selectors. A **selector** is a string that is crafted to match specific DOM elements. Once an element is selected, other jQuery methods can be used to add and remove CSS classes or properties from the selected element, show or hide the selected element, etc. The jQuery method **addClass()** is used to add a CSS class to selected elements as illustrated in the animation below.



A web developer can select elements and call jQuery methods to perform operations on the selected elements in a single line of code. The figure below selects and removes the "important" class from all paragraphs using the jQuery method **removeClass()**, which removes a class from a selected element.

```
Example 9.2.1: Using $() and removeClass() on a single line.

// Select all paragraphs, then remove the "important" class from all of them
$("p").removeClass("important");
```

Feedback?

Three common ways exist to select elements: by element, ID, or class. The jQuery syntax for selecting by element, ID, and class is similar to CSS selector syntax.

Table 9.2.1: Basic jQuery selectors.

Selector Type	Example	Explanation
Element	\$("p")	Selects all elements
ID	\$("#hello")	Selects the element with id="hello"
Class	<pre>\$(".important")</pre>	Selects all elements with class="important"

Feedback?

PARTICIPATION ACTIVITY

9.2.2: Using basic selectors.



- 1) Which line of code selects all <h2> elements in a document?
 - O \$("<h2>")
 - O \$("#h2")
 - \$ ("h2")

Correct

The equivalent code is

\$(document.getElementsByTagName("h2"))

- 2) Which line of code adds the class "crazy" to the element with ID "game"?
 - \$ ("#game").addClass("crazy");
 - \$ (".game").addClass("crazy");
 - \$ ("game").addClass("crazy");
- 3) Which line of code removes the class "crazy" from all elements currently using the "crazy" class?
 - \$(".crazy").removeClass(".crazy");
 - \$(".crazy").removeClass("crazy");
 - \$ ("div").removeClass("crazy");

Correct

The "#" is used for selecting by ID.

Correct

The elements using the "crazy" class are selected, then the "crazy" class is removed from the elements.

4) Which line of code removes the "crazy" class from all <div> elements currently using the "crazy" class and adds the "crazy" class to all <div> elements currently not using the "crazy" class?

Correct

toggleClass() is very handy for adding/removing classes.



\$ \$("div").removeClass("crazy");
\$ \$("div").addClass("crazy");
\$ \$("div").toggleClass("crazy");

- 5) Which line of code adds the classes "crazy" and "completed" in the most efficient manner to all elements?
 - \$ \$("p").addClass("crazy").addClass("completed");
 - \$ ("p").addClass("crazy + completed")
 - \$ ("p").addClass("crazy");
 \$ ("p").addClass("completed");

Correct

Chaining jQuery method calls is a common way to perform operations on the same set of selected elements. A single call to addClass() also works:

\$("p").addClass("crazy)

completed")

Feedback?

Additional selectors

Additional jQuery selectors provide more sophisticated selection of DOM elements:

- Attribute selector Selects elements based on an element attribute.
- Basic filter selector Selects elements based on a variety of properties.
- Child filter selector Selects child elements based on location or other properties.
- Content filter selector Selects elements based on an element's contents.
- Hierarchy selector Selects elements based on an element's location within the DOM hierarchy.

The table below shows examples of each additional jQuery selector type.

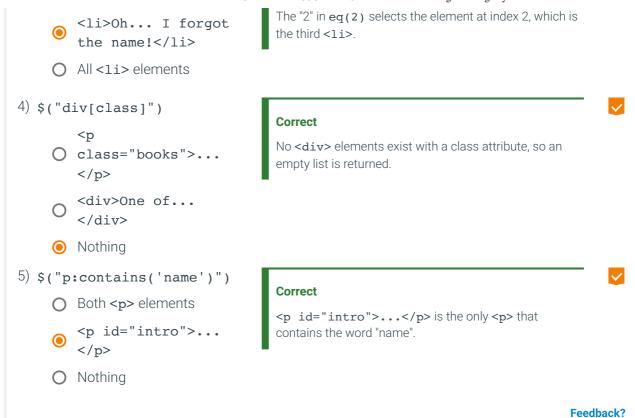
Table 9.2.2: Additional jQuery selectors.

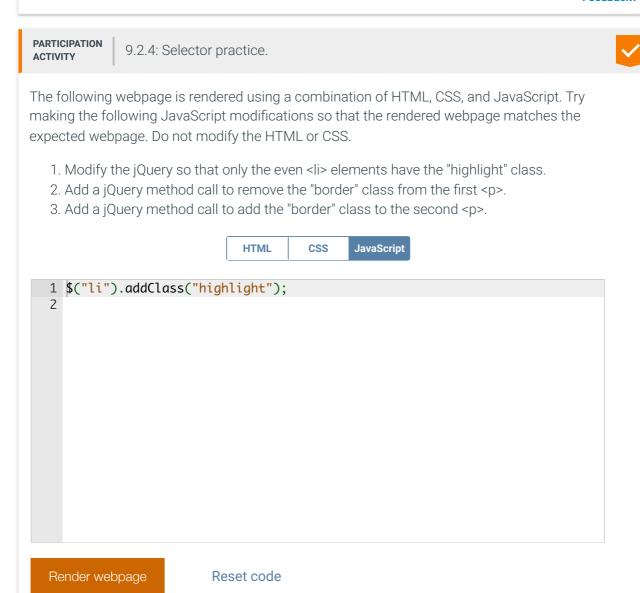
Selector Type	Example	Explanation
Attribute	\$("span[id]")	Selects all that have an id attribute
Attribute	<pre>\$("a[href\$='.pdf']")</pre>	Selects all <a> with href attributes ending in .pdf
Basic filter	<pre>\$("p:first")</pre>	Selects the first element
Basic filter	<pre>\$("tr:even")</pre>	Selects the first, third, fifth, etc. table rows (zero-indexed)
Basic filter	\$("li:eq(1)")	Selects the second element (index n)

Selector Type	Example	Explanation
Child filter	<pre>\$("li:last-child")</pre>	Selects the last <1i> in each group
Content filter	<pre>\$("p:contains('bye')")</pre>	Selects all that contain the word "bye"
Hierarchy	\$("li span")	Selects all that are descendants of <1i>

Feedback?

PARTICIPATION 9.2.3: Using additional selectors. **ACTIVITY** Given the HTML below, what elements are selected with each jQuery selector? <h2>About Me</h2> Hello, my name is Jamie! My favorite books: Animal Farm 1984 Oh... I forgot the name! <div>One of my favorite quotes from Robert Wilensky: We've all heard that a million monkeys banging on a million typewriters will eventually reproduce the entire works of Shakespeare. Now, thanks to the Internet, we know this is not true. </blockquote> </div> 1) \$("div strong") Correct Jamie Both elements are descendants of a O and Robert <div>. Wilensky Robert Wilensky Robert Wilensky and not true 2) \$("li:first") Correct Animal Only the first is selected. Farm Oh... I forgot the name! O All elements 3) \$("li:eq(2)") Correct O 1984





Expected webpage

Your webpage

Highest-Grossing Films Films adjusted for inflation as of 2019:

- 1. Gone with the Wind (1939)
- 2. Avatar (2009)
- 3. Titanic (1997)
- 4. Star Wars (1977)
- 5. Avengers: Endgame (2019)

Gone with the Wind is the oldest movie to rank in the top 10 list of highest-grossing

▶ View solution

Highest-Grossing Films

Films adjusted for inflation as of 2019:

- 1. Gone with the Wind (1939)
- 2. Avatar (2009)
- 3. Titanic (1997)
- 4. Star Wars (1977)
- 5. Avengers: Endgame (2019)

Gone with the Wind is the oldest movie to rank in the top 10 list of highest-grossing

Feedback?

