CS472 WAP

jQuery Traversal

DOM, jQuery

Main Point Preview

- In addition to selection by CSS-like selectors, jQuery has tree traversal relations that find children, sibling, parent, ancestor nodes
- *Science of Consciousness: jQuery traversal operations facilitate relationships with all elements of the DOM. The experience of self-referral awareness facilitates one's relationships with family, friends, countrymen, and the world.*

Aspects of the DOM and jQuery

- **Identification:**
  - how do I obtain a reference to the node that I want.
  - using css-like selectors to get target nodes
- **Traversal:**
  - Find nodes by tree traversal relations
  - using children, sibling, parent, etc links to get target nodes
- **Node Manipulation:**
  - how do I get or set aspects of a DOM node.
  - e.g., style, attributes, innerHTML
- **Tree Manipulation:**
  - how do I change the structure of the page.

Traversing the DOM tree

- every node's DOM object has the following properties:

name(s)	description
firstChild, lastChild	start/end of this node's list of children
childNodes	array of all this node's children
nextSibling, previousSibling	neighboring nodes with the same parent
parentNode	the element that contains this node

- complete list of DOM node properties and methods

jQuery Traversing - Ancestors

An ancestor is a parent, grandparent, great-grandparent, and so on.

- **parent() - returns the direct parent element of the selected element.**
- **parents() - returns all ancestor elements of the selected element.**
  - You can also use an optional parameter to filter the search for ancestors.
- **parentsUntil() - returns all ancestor elements between two given arguments.**

```
$("span").parent();
$("span").parents();
$("span").parents("ul"); // returns all ancestors of all
 <span> elements that are <ul> elements
$("span").parentsUntil("div");
```

jQuery Traversing - Descendants

A descendant is a child, grandchild, great-grandchild, and so on.

- **children() - returns all direct children of the selected element**
  - You can also use an optional parameter to filter the search for children
- **find() - returns descendant elements of the selected element**

```
$("div").children();

// returns all <p> elements with the class name "first", that are direct children of <div>
$("div").children("p.first");

// returns all <span> elements that are descendants of <div>:
$("div").find("span");

// returns all descendants of <div>
$("div").find("*");
```

jQuery Traversing - Siblings

- siblings() - returns all sibling elements of the selected element
  - can also use an optional parameter to filter the search for siblings
- next() - returns the next sibling element
- nextAll() - returns all following sibling elements
- nextUntil() - returns all sibling elements between two given arguments
- prev()
- prevAll()
- prevUntil()

jQuery Traversing - Filtering

```
// selects the first <p> element inside the first <div> element
$("div p").first();

// selects the last <p> element inside the last <div> element
$("div p").last();

// returns an element with a specific index number of the selected elements
$("p").eq(1);
```

The filter() method lets you specify a selection criteria. Elements that do not match the criteria are removed from the selection, and those that match will be returned

```
// returns all <p> elements with class name "intro"
$("p").filter(".intro");

// returns all elements that do not match the criteria - opposite to filter
$("p").not(".intro");
```

- All traversing methods

Main Point

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- *Science of Consciousness: jQuery traversal operations facilitate relationships with all elements of the DOM. The experience of self-referral awareness facilitates one's relationships with family, friends, countrymen, and the world.*


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