Introduction to the Document Object Model

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The way Javascript sees HTML

Image: http://watershedcreative.com/naked/
Looking at the DOM with Firefox
The nodes in the node tree have a hierarchical relationship to each other.

The terms parent, child, and sibling are used to describe the relationships. Parent nodes have children. Children on the same level are called siblings (brothers or sisters).

- In a node tree, the top node is called the root
- Every node has exactly one parent, except the root (which has no parent)
- A node can have any number of children
- Siblings are nodes with the same parent
A simple example

```html
<html>
  <head>
    <title>DOM Tutorial</title>
  </head>
  <body>
    <h1>DOM Lesson one</h1>
    <p>Hello world!</p>
  </body>
</html>
```

In terms of parents:

- The `<html>` node has no parent node; it is the root node.
- The parent node of the `<head>` and `<body>` nodes is the `<html>` node.
- The parent node of the "Hello world!" text node is the `<p>` node.
A simple example

```html
<html>
  <head>
    <title>DOM Tutorial</title>
  </head>
  <body>
    <h1>DOM Lesson one</h1>
    <p>Hello world!</p>
  </body>
</html>
```

In terms of children:

- The `<html>` node has 2 child nodes: `head` and `body`
- The `<head>` node has 1 child node: the `<title>` node
- The `<title>` node also has 1 child node: the text node "DOM Tutorial"
- The `<h1>` and `<p>` nodes are siblings and child nodes of `<body>`
A simple example

```html
<html>
  <head>
    <title>DOM Tutorial</title>
  </head>
  <body>
    <h1>DOM Lesson one</h1>
    <p>Hello world!</p>
  </body>
</html>
```

**First and last children:**

- The `<head>` element is the first child of the `<html>` element
- The `<body>` element is the last child of the `<html>` element
- The `<h1>` element is the first child of the `<body>` element
- The `<p>` element is the last child of the `<body>` element
Accessing nodes

Some commonly used HTML DOM methods:

**getElementById**(id) - get the node (element) with a specified id

**getElementsByClassName**(class) - get all the nodes for particular class

**getElementsByTagName**(tag) - get all the nodes w/ specified tag name

**appendChild**(node) - insert a new child node

**removeChild**(node) - remove a child node

**createElement**(tag) - create a new element with a given tag
Accessing nodes

Some commonly used HTML DOM properties:

- **innerHTML** - the text value of a node (element)
- **parentNode** - the parent node of a node (element)
- **childNodes** - the child nodes of a node (element)
- **attributes** - the attributes nodes of a node (element)
Utilizing the DOM

Class Demo
Qapla’