

DOM API

Two types of nodes:

- 1) elements (nonTextNodes) that have tagnames and attributes
- 2) textNodes (contain the dead text in the document) have no attributes

Modifying the DOM:

`document.createElement("tagname")`
returns the new element

`document.createTextNode("text")`
returns the new textNode

`parentNode.appendChild(childNode)`
parentNode must be an element, childNode can be element or textNode

`element.setAttribute("attr", "val")`
only works for elements, since textNodes don't have attributes

Finding a node in the DOM:

`document.getElementById("id")`
returns the one unique element that has "id"

`document.getElementsByTagName("tag")`
returns an array of all elements that have "tag"

`element.childNodes`
returns an array of nodes that are nested inside element

`element.firstChild`
Returns the first node that is nested inside element.
This is the only way to get to textNodes, since they have no name or id,
where element is the tag surrounding the dead text.

Finding information about a node in the DOM:

`element.getAttribute("attribute")`
Returns the value of attribute in element.
Note that `element.attribute` works in Safari but not in FireFox

`textNode.data`
returns the text from a textNode

`textNode.nodeValue`
same as `textNode.data` (above)

`selectNode.options`
returns an array of all the nodes with tagname "option" that are nested inside a selectNode,
which is a node with tagname "select"

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<!--
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Demonstrates data and value in elements and textNodes
-->

<head>
  <title> Your title goes here </title>
  <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
  <script language = 'JavaScript' type = 'text/javascript'>

    window.onload=function()
    { var msg=null;
      var pnode = document.getElementById("pid");
      msg = "pnode.getAttribute('value') = " + pnode.getAttribute('value') + "\n";
      msg += "pnode.data = " + pnode.data + "\n";
      msg += "pnode.nodeValue = " + pnode.nodeValue + "\n";
      msg += "pnode.firstChild.value = " + pnode.firstChild.value + "\n";
      msg += "pnode.firstChild.data = " + pnode.firstChild.nodeValue + "\n";
      msg += "pnode.firstChild.nodeValue= " + pnode.firstChild.nodeValue + "\n";
      alert (msg);
    }

    /* Here is the output in the alert box for both Firefox and Safari:
    pnode.getAttribute('value') = pvalue
    pnode.data = undefined
    pnode.nodeValue = null
    pnode.firstChild.value = undefined
    pnode.firstChild.data = This is between p tags
    pnode.firstChild.nodeValue = This is between p tags
    */

  </script>
</head>

<body>
  <p id = "pid" value = "pvalue" name = "pname">
    This is between p tags
  </p>
</body>

</html>

```