

```
<!--  
ajax1.html  
  
Gets stock quote from quotel.php via Ajax, displaying result with alert().  
  
David J. Malan  
Computer Science E-75  
Harvard Extension School  
  
-->  
  
<!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">  
  <head>  
    <script type="text/javascript">  
      // <br/><br/>        // an XMLHttpRequest<br/>        var xhr = null;<br/><br/>        /*<br/>        * void<br/>        * quote()<br/>        *<br/>        * Gets a quote.<br/>        */<br/>        function quote()<br/>        {<br/>          // instantiate XMLHttpRequest object<br/>          try<br/>          {<br/>            xhr = new XMLHttpRequest();<br/>          }<br/>          catch (e)<br/>          {<br/>            xhr = new ActiveXObject("Microsoft.XMLHTTP");<br/>          }<br/><br/>          // handle old browsers<br/>          if (xhr == null)<br/>          {<br/>            alert("Ajax not supported by your browser!");<br/>            return;<br/>          }<br/><br/>          // construct URL<br/>          var url = "quotel.php?symbol=" + document.getElementById("symbol").value;<br/><br/>          // get quote<br/>          xhr.onreadystatechange = handler;<br/>          xhr.open("GET", url, true);<br/>          xhr.send(null);<br/>        }<br/><br/>        /*<br/>        * void<br/>        * handler()<br/>        *<br/>        * Handles the Ajax response.<br/>        */</pre></div><div data-bbox="500 103 776 417" data-label="Text"><pre>function handler()<br/>{<br/>    // only handle loaded requests<br/>    if (xhr.readyState == 4)<br/>    {<br/>        if (xhr.status == 200)<br/>            alert(xhr.responseText);<br/>        else<br/>            alert("Error with Ajax call!");<br/>    }<br/>}<br/><br/>// ]]&gt;<br/>&lt;/script&gt;<br/>&lt;title&gt;&lt;/title&gt;<br/>&lt;/head&gt;<br/>&lt;body&gt;<br/>  &lt;form onsubmit="quote(); return false;"&gt;<br/>    Symbol: &lt;input id="symbol" type="text" /&gt;<br/>    &lt;br /&gt;&lt;br /&gt;<br/>    &lt;input type="submit" value="Get Quote" /&gt;<br/>  &lt;/form&gt;<br/>&lt;/body&gt;<br/>&lt;/html&gt;</pre></div>
```

```
<!--  
ajax2.html  
  
Gets stock quote from quotel.php via Ajax, embedding result in an input element.  
  
David J. Malan  
Computer Science E-75  
Harvard Extension School  
  
-->  
  
<!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">  
  <head>  
    <script type="text/javascript">  
      // <br/><br/>        // an XMLHttpRequest<br/>        var xhr = null;<br/><br/>        /*<br/>        * void<br/>        * quote()<br/>        *<br/>        * Gets a quote.<br/>        */<br/>        function quote()<br/>        {<br/>          // instantiate XMLHttpRequest object<br/>          try<br/>          {<br/>            xhr = new XMLHttpRequest();<br/>          }<br/>          catch (e)<br/>          {<br/>            xhr = new ActiveXObject("Microsoft.XMLHTTP");<br/>          }<br/><br/>          // handle old browsers<br/>          if (xhr == null)<br/>          {<br/>            alert("Ajax not supported by your browser!");<br/>            return;<br/>          }<br/><br/>          // construct URL<br/>          var url = "quotel.php?symbol=" + document.getElementById("symbol").value;<br/><br/>          // get quote<br/>          xhr.onreadystatechange = handler;<br/>          xhr.open("GET", url, true);<br/>          xhr.send(null);<br/>        }<br/><br/>        /*<br/>        * void<br/>        * handler()<br/>        *<br/>        * Handles the Ajax response.<br/>        */</pre></div><div data-bbox="500 104 926 443" data-label="Text"><pre>function handler()<br/>{<br/>  // only handle loaded requests<br/>  if (xhr.readyState == 4)<br/>  {<br/>    if (xhr.status == 200)<br/>      document.getElementById("price").value = xhr.responseText;<br/>    else<br/>      alert("Error with Ajax call!");<br/>  }<br/>}<br/><br/>// ]]&gt;<br/>&lt;/script&gt;<br/>&lt;title&gt;&lt;/title&gt;<br/>&lt;/head&gt;<br/>&lt;body&gt;<br/>  &lt;form onsubmit="quote(); return false;"&gt;<br/>    Symbol: &lt;input id="symbol" type="text" /&gt;<br/>    &lt;br /&gt;<br/>    Price: &lt;input id="price" type="text" /&gt;<br/>    &lt;br /&gt;&lt;br /&gt;<br/>    &lt;input type="submit" value="Get Quote" /&gt;<br/>  &lt;/form&gt;<br/>&lt;/body&gt;<br/>&lt;/html&gt;</pre></div>
```

```
<!--  
ajax3.html  
  
Gets stock quote from quotel.php via Ajax, embedding result in page itself.  
  
David J. Malan  
Computer Science E-75  
Harvard Extension School  
  
-->  
  
<!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">  
  <head>  
    <script type="text/javascript">  
      // <br/><br/>        // an XMLHttpRequest<br/>        var xhr = null;<br/><br/>        /*<br/>        * void<br/>        * quote()<br/>        *<br/>        * Gets a quote.<br/>        */<br/>        function quote()<br/>        {<br/>          // instantiate XMLHttpRequest object<br/>          try<br/>          {<br/>            xhr = new XMLHttpRequest();<br/>          }<br/>          catch (e)<br/>          {<br/>            xhr = new ActiveXObject("Microsoft.XMLHTTP");<br/>          }<br/><br/>          // handle old browsers<br/>          if (xhr == null)<br/>          {<br/>            alert("Ajax not supported by your browser!");<br/>            return;<br/>          }<br/><br/>          // construct URL<br/>          var url = "quotel.php?symbol=" + document.getElementById("symbol").value;<br/><br/>          // get quote<br/>          xhr.onreadystatechange = handler;<br/>          xhr.open("GET", url, true);<br/>          xhr.send(null);<br/>        }<br/><br/>        /*<br/>        * void<br/>        * handler()<br/>        *<br/>        * Handles the Ajax response.<br/>        */</pre></div><div data-bbox="500 103 949 443" data-label="Text"><pre>function handler()<br/>{<br/>    // only handle loaded requests<br/>    if (xhr.readyState == 4)<br/>    {<br/>        if (xhr.status == 200)<br/>            document.getElementById("price").innerHTML = xhr.responseText;<br/>        else<br/>            alert("Error with Ajax call!");<br/>    }<br/>}<br/><br/>// ]]&gt;<br/>&lt;/script&gt;<br/>&lt;title&gt;&lt;/title&gt;<br/>&lt;/head&gt;<br/>&lt;body&gt;<br/>  &lt;form onsubmit="quote(); return false;"&gt;<br/>    Symbol: &lt;input id="symbol" type="text" /&gt;<br/>    &lt;br /&gt;<br/>    Price: &lt;span id="price"&gt;&lt;b&gt;to be determined&lt;/b&gt;&lt;/span&gt;<br/>    &lt;br /&gt;&lt;br /&gt;<br/>    &lt;input type="submit" value="Get Quote" /&gt;<br/>  &lt;/form&gt;<br/>&lt;/body&gt;<br/>&lt;/html&gt;</pre></div>
```

```
<!--  
ajax4.html  
  
Gets stock quote (plus day's low and high) from quote2.php via Ajax,  
embedding result in a textarea.  
  
David J. Malan  
Computer Science E-75  
Harvard Extension School  
  
-->  
  
<!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">  
  <head>  
    <script type="text/javascript">  
      // <br/><br/>        // an XMLHttpRequest<br/>        var xhr = null;<br/><br/>        /*<br/>        * void<br/>        * quote()<br/>        *<br/>        * Gets a quote.<br/>        */<br/>        function quote()<br/>        {<br/>          // instantiate XMLHttpRequest object<br/>          try<br/>          {<br/>            xhr = new XMLHttpRequest();<br/>          }<br/>          catch (e)<br/>          {<br/>            xhr = new ActiveXObject("Microsoft.XMLHTTP");<br/>          }<br/><br/>          // handle old browsers<br/>          if (xhr == null)<br/>          {<br/>            alert("Ajax not supported by your browser!");<br/>            return;<br/>          }<br/><br/>          // construct URL<br/>          var url = "quote2.php?symbol=" + document.getElementById("symbol").value;<br/><br/>          // get quote<br/>          xhr.onreadystatechange = handler;<br/>          xhr.open("GET", url, true);<br/>          xhr.send(null);<br/>        }<br/><br/>        /*<br/>        * void<br/>        * handler()<br/>        *<br/>        * Handles the Ajax response.<br/>        */</pre></div><div data-bbox="500 104 932 456" data-label="Text"><pre>      */<br/>      function handler()<br/>      {<br/>        // only handle loaded requests<br/>        if (xhr.readyState == 4)<br/>        {<br/>          if (xhr.status == 200)<br/>            document.getElementById("result").value = xhr.responseText;<br/>          else<br/>            alert("Error with Ajax call!");<br/>        }<br/>      }<br/><br/>    // ]]&gt;<br/>  &lt;/script&gt;<br/>  &lt;title&gt;&lt;/title&gt;<br/>&lt;/head&gt;<br/>&lt;body&gt;<br/>  &lt;form onsubmit="quote(); return false;"&gt;<br/>    Symbol: &lt;input id="symbol" type="text" /&gt;<br/>    &lt;br /&gt;<br/>    &lt;textarea cols="40" id="result" rows="3"&gt;&lt;/textarea&gt;<br/>    &lt;br /&gt;&lt;br /&gt;<br/>    &lt;input type="submit" value="Get Quote" /&gt;<br/>  &lt;/form&gt;<br/>&lt;/body&gt;<br/>&lt;/html&gt;</pre></div>
```

```
<!--  
  
ajax5.html  
  
Gets stock quote (plus day's low and high) from quote3.php via Ajax,  
embedding result in page itself.  
  
David J. Malan  
Computer Science E-75  
Harvard Extension School  
  
-->  
  
<!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">  
  <head>  
    <script type="text/javascript">  
      // <br/><br/>        // an XMLHttpRequest<br/>        var xhr = null;<br/><br/>        /*<br/>        * void<br/>        * quote()<br/>        *<br/>        * Gets a quote.<br/>        */<br/>        function quote()<br/>        {<br/>          // instantiate XMLHttpRequest object<br/>          try<br/>          {<br/>            xhr = new XMLHttpRequest();<br/>          }<br/>          catch (e)<br/>          {<br/>            xhr = new ActiveXObject("Microsoft.XMLHTTP");<br/>          }<br/><br/>          // handle old browsers<br/>          if (xhr == null)<br/>          {<br/>            alert("Ajax not supported by your browser!");<br/>            return;<br/>          }<br/><br/>          // construct URL<br/>          var url = "quote3.php?symbol=" + document.getElementById("symbol").value;<br/><br/>          // get quote<br/>          xhr.onreadystatechange = handler;<br/>          xhr.open("GET", url, true);<br/>          xhr.send(null);<br/>        }<br/><br/>        /*<br/>        * void<br/>        * handler()<br/>        *<br/>        * Handles the Ajax response.<br/>        */</pre></div><div data-bbox="500 104 949 456" data-label="Text"><pre>      */<br/>      function handler()<br/>      {<br/>        // only handle requests in "loaded" state<br/>        if (xhr.readyState == 4)<br/>        {<br/>          if (xhr.status == 200)<br/>            document.getElementById("quote").innerHTML = xhr.responseText;<br/>          else<br/>            alert("Error with Ajax call!");<br/>        }<br/>      }<br/><br/>    // ]]&gt;<br/>  &lt;/script&gt;<br/>  &lt;title&gt;&lt;/title&gt;<br/>&lt;/head&gt;<br/>&lt;body&gt;<br/>  &lt;form onsubmit="quote(); return false;"&gt;<br/>    Symbol: &lt;input id="symbol" type="text" /&gt;<br/>    &lt;br /&gt;&lt;br /&gt;<br/>    &lt;div id="quote"&gt;&lt;b&gt;quote will appear here!&lt;/b&gt;&lt;/div&gt;<br/>    &lt;br /&gt;&lt;br /&gt;<br/>    &lt;input type="submit" value="Get Quote" /&gt;<br/>  &lt;/form&gt;<br/>&lt;/body&gt;<br/>&lt;/html&gt;</pre></div>
```

```
<!--

ajax6.html

Gets stock quote (plus day's low and high) from quote4.php via Ajax,
embedding result in page itself after indicating progress with text.

David J. Malan
Computer Science E-75
Harvard Extension School

-->

<!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">
<head>
<script type="text/javascript">
// 

// an XMLHttpRequest
var xhr = null;

/*
 * void
 * quote()
 *
 * Gets a quote.
 */
function quote()
{
    // instantiate XMLHttpRequest object
    try
    {
        xhr = new XMLHttpRequest();
    }
    catch (e)
    {
        xhr = new ActiveXObject("Microsoft.XMLHTTP");
    }

    // handle old browsers
    if (xhr == null)
    {
        alert("Ajax not supported by your browser!");
        return;
    }

    // construct URL
    var url = "quote4.php?symbol=" + document.getElementById("symbol").value;

    // inform user
    document.getElementById("quote").innerHTML = "Looking up symbol...";

    // get quote
    xhr.onreadystatechange = handler;
    xhr.open("GET", url, true);
    xhr.send(null);
}

/*
 * void</pre></div><div data-bbox="500 104 949 495" data-label="Text"><pre>    * handler()
    *
    * Handles the Ajax response.
    */
function handler()
{
    // only handle requests in "loaded" state
    if (xhr.readyState == 4)
    {
        if (xhr.status == 200)
            document.getElementById("quote").innerHTML = xhr.responseText;
        else
            alert("Error with Ajax call!");
    }
}

// ]]&gt;
&lt;/script&gt;
&lt;title&gt;&lt;/title&gt;
&lt;/head&gt;
&lt;body&gt;
&lt;form onsubmit="quote(); return false;"&gt;
    Symbol: &lt;input id="symbol" type="text" /&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;div id="quote"&gt;&lt;b&gt;quote will appear here!&lt;/b&gt;&lt;/div&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;input type="submit" value="Get Quote" /&gt;
&lt;/form&gt;
&lt;/body&gt;
&lt;/html&gt;</pre></div>
```

```
<!--

ajax7.html

Gets stock quote (plus day's low and high) from quote4.php via Ajax,
embedding result in page itself after indicating progress with an
animated GIF.

David J. Malan
Computer Science E-75
Harvard Extension School

-->

<!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">
  <head>
    <script type="text/javascript">
      // 

        // an XMLHttpRequest
        var xhr = null;

        /*
         * void
         * quote()
         *
         * Gets a quote.
         */
        function quote()
        {
          // instantiate XMLHttpRequest object
          try
          {
            xhr = new XMLHttpRequest();
          }
          catch (e)
          {
            xhr = new ActiveXObject("Microsoft.XMLHTTP");
          }

          // handle old browsers
          if (xhr == null)
          {
            alert("Ajax not supported by your browser!");
            return;
          }

          // construct URL
          var url = "quote4.php?symbol=" + document.getElementById("symbol").value;

          // show progress
          document.getElementById("progress").style.display = "block";

          // get quote
          xhr.onreadystatechange = handler;
          xhr.open("GET", url, true);
          xhr.send(null);
        }

        /*
         * void
         * handler()
         *
         * Handles the Ajax response.
         */
        function handler()
        {
          // only handle requests in "loaded" state
          if (xhr.readyState == 4)
          {
            // hide progress
            document.getElementById("progress").style.display = "none";

            if (xhr.status == 200)
              document.getElementById("quote").innerHTML = xhr.responseText;
            else
              alert("Error with Ajax call!");
          }
        }

      // ]]&gt;
    &lt;/script&gt;
    &lt;title&gt;&lt;/title&gt;
  &lt;/head&gt;
  &lt;body&gt;
    &lt;form onsubmit="quote(); return false;"&gt;
      Symbol: &lt;input id="symbol" type="text" /&gt;
      &lt;br /&gt;&lt;br /&gt;
      &lt;div id="progress" style="display: none;"&gt;
        &lt;img alt="Please Wait" src="pleasewait.gif" /&gt;
        &lt;br /&gt;&lt;br /&gt;
      &lt;/div&gt;
      &lt;div id="quote"&gt;&lt;/div&gt;
      &lt;br /&gt;&lt;br /&gt;
      &lt;input type="submit" value="Get Quote" /&gt;
    &lt;/form&gt;
  &lt;/body&gt;
&lt;/html&gt;</pre></div>
```

```

<!--

ajax8.html

Gets stock quote (plus day's low and high) from quote5.php via Ajax,
embedding result in page itself.

David J. Malan
Computer Science E-75
Harvard Extension School

-->

<!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">
<head>
<script type="text/javascript">
// 

// an XMLHttpRequest
var xhr = null;

/*
 * void
 * quote()
 *
 * Gets a quote.
 */
function quote()
{
    // instantiate XMLHttpRequest object
    try
    {
        xhr = new XMLHttpRequest();
    }
    catch (e)
    {
        xhr = new ActiveXObject("Microsoft.XMLHTTP");
    }

    // handle old browsers
    if (xhr == null)
    {
        alert("Ajax not supported by your browser!");
        return;
    }

    // construct URL
    var url = "quote5.php?symbol=" + document.getElementById("symbol").value;

    // get quote
    xhr.onreadystatechange = handler;
    xhr.open("GET", url, true);
    xhr.send(null);
}

/*
 * void
 * handler()
 *
 * Handles the Ajax response.
</pre>
</div>
<div data-bbox="500 104 908 861" data-label="Text">
<pre>
*/
function handler()
{
    // only handle requests in "loaded" state
    if (xhr.readyState == 4)
    {
        if (xhr.status == 200)
        {
            // get XML
            var xml = xhr.responseXML;

            // update price
            var prices = xml.getElementsByTagName("price");
            if (prices.length == 1)
            {
                var price = prices[0].firstChild.nodeValue;
                document.getElementById("price").innerHTML = price;
            }

            // update low
            var lows = xml.getElementsByTagName("low");
            if (lows.length == 1)
            {
                var low = lows[0].firstChild.nodeValue;
                document.getElementById("low").innerHTML = low;
            }

            // update high
            var highs = xml.getElementsByTagName("high");
            if (highs.length == 1)
            {
                var high = highs[0].firstChild.nodeValue;
                document.getElementById("high").innerHTML = high;
            }
        }
        else
            alert("Error with Ajax call!");
    }
}

// ]]&gt;
&lt;/script&gt;
&lt;title&gt;&lt;/title&gt;
&lt;/head&gt;
&lt;body&gt;
&lt;form onsubmit="quote(); return false;"&gt;
    Symbol: &lt;input id="symbol" type="text" /&gt;
    &lt;br /&gt;&lt;br /&gt;
    Price: &lt;span id="price"&gt;&lt;/span&gt;
    &lt;br /&gt;
    Low: &lt;span id="low"&gt;&lt;/span&gt;
    &lt;br /&gt;
    High: &lt;span id="high"&gt;&lt;/span&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;input type="submit" value="Get Quote" /&gt;
&lt;/form&gt;
&lt;/body&gt;
&lt;/html&gt;
</pre>
</div>
```



&lt;!--

ajax9.html

Gets stock quote from quotel.php via Ajax, inserting result into DOM.  
Also displays new DOM nodes' XHTML in a textarea.

David J. Malan  
Computer Science E-75  
Harvard Extension School

--&gt;

```
<!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">
```

```
<head>
```

```
<script type="text/javascript">
// </pre></div><div data-bbox="74 391 186 417" data-label="Text"><pre>// an XMLHttpRequest
var xhr = null;</pre></div><div data-bbox="74 430 164 507" data-label="Text"><pre>/*
 * void
 * quote()
 *
 * Gets a quote.
 */</pre></div><div data-bbox="74 508 164 522" data-label="Text"><pre>function quote()</pre></div><div data-bbox="74 522 360 652" data-label="Text"><pre>{
    // instantiate XMLHttpRequest object
    try
    {
        xhr = new XMLHttpRequest();
    }
    catch (e)
    {
        xhr = new ActiveXObject("Microsoft.XMLHTTP");
    }
}</pre></div><div data-bbox="96 664 360 743" data-label="Text"><pre>// handle old browsers
if (xhr == null)
{
    alert("Ajax not supported by your browser!");
    return;
}</pre></div><div data-bbox="96 756 381 783" data-label="Text"><pre>// get symbol
var symbol = document.getElementById("symbol").value;</pre></div><div data-bbox="96 795 313 822" data-label="Text"><pre>// construct URL
var url = "quotel.php?symbol=" + symbol;</pre></div><div data-bbox="96 834 281 952" data-label="Text"><pre>// get quote
xhr.onreadystatechange =
function()
{
    // only handle loaded requests
    if (xhr.readyState == 4)
    {
        if (xhr.status == 200)
        {</pre></div><div data-bbox="500 104 972 339" data-label="Text"><pre>            // insert quote into DOM
            var div = document.createElement("div");
            var text = document.createTextNode(symbol + ": " + xhr.respons
eText);

            div.appendChild(text);
            document.getElementById("quotes").appendChild(div);

            // show corresponding XHTML in textarea
            document.getElementById("code").value = document.getElementByI
d("quotes").innerHTML;
        }
        else
            alert("Error with Ajax call!");
    }
}
xhr.open("GET", url, true);
xhr.send(null);
}</pre></div><div data-bbox="500 352 799 560" data-label="Text"><pre>// ]]&gt;
&lt;/script&gt;
&lt;title&gt;&lt;/title&gt;
&lt;/head&gt;
&lt;body&gt;
    &lt;form onsubmit="quote(); return false;"&gt;
        Symbol: &lt;input id="symbol" type="text" /&gt;
        &lt;br /&gt;&lt;br /&gt;
        &lt;input type="submit" value="Get Quote" /&gt;
    &lt;/form&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;div id="quotes"&gt;&lt;/div&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;textarea cols="80" id="code" rows="16"&gt;&lt;/textarea&gt;
&lt;/body&gt;
&lt;/html&gt;</pre></div>
```

&lt;!--

ajax10.html

Gets stock quote from quote6.php via Ajax, inserting result into DOM.  
Also displays returned JSON in a textarea.

David J. Malan  
Computer Science E-75  
Harvard Extension School

--&gt;

```
<!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">
```

```
<head>
```

```
<script type="text/javascript">
// </pre></div><div data-bbox="75 391 187 417" data-label="Text"><pre>// an XMLHttpRequest
var xhr = null;</pre></div><div data-bbox="75 430 91 443" data-label="Text"><pre>/*</pre></div><div data-bbox="75 443 164 507" data-label="Text"><pre>* void
* quote()
*
* Gets a quote.
*/</pre></div><div data-bbox="75 508 164 522" data-label="Text"><pre>function quote()</pre></div><div data-bbox="75 522 360 652" data-label="Text"><pre>{
    // instantiate XMLHttpRequest object
    try
    {
        xhr = new XMLHttpRequest();
    }
    catch (e)
    {
        xhr = new ActiveXObject("Microsoft.XMLHTTP");
    }
}</pre></div><div data-bbox="96 664 360 743" data-label="Text"><pre>// handle old browsers
if (xhr == null)
{
    alert("Ajax not supported by your browser!");
    return;
}</pre></div><div data-bbox="96 756 381 783" data-label="Text"><pre>// get symbol
var symbol = document.getElementById("symbol").value;</pre></div><div data-bbox="96 795 312 823" data-label="Text"><pre>// construct URL
var url = "quote6.php?symbol=" + symbol;</pre></div><div data-bbox="96 834 281 952" data-label="Text"><pre>// get quote
xhr.onreadystatechange =
function()
{
    // only handle loaded requests
    if (xhr.readyState == 4)
    {
        if (xhr.status == 200)
        {</pre></div><div data-bbox="625 104 886 131" data-label="Text"><pre>// evaluate JSON
var quote = eval("(" + xhr.responseText + ")");</pre></div><div data-bbox="625 143 943 170" data-label="Text"><pre>// show JSON in textarea
document.getElementById("code").value = xhr.responseText;</pre></div><div data-bbox="625 183 972 222" data-label="Text"><pre>// insert quote into DOM
var div = document.createElement("div");
var text = document.createTextNode(symbol + ": " + quote.price</pre></div><div data-bbox="500 222 517 235" data-label="Text"><pre>);</pre></div><div data-bbox="625 234 909 261" data-label="Text"><pre>div.appendChild(text);
document.getElementById("quotes").appendChild(div);</pre></div><div data-bbox="603 261 798 300" data-label="Text"><pre>}
else
    alert("Error with Ajax call!");</pre></div><div data-bbox="562 300 713 353" data-label="Text"><pre>}
}
xhr.open("GET", url, true);
xhr.send(null);</pre></div><div data-bbox="540 353 554 366" data-label="Text"><pre>}</pre></div><div data-bbox="520 378 560 392" data-label="Text"><pre>// ]]&gt;</pre></div><div data-bbox="520 391 576 405" data-label="Text"><pre>&lt;/script&gt;</pre></div><div data-bbox="520 404 607 418" data-label="Text"><pre>&lt;title&gt;&lt;/title&gt;</pre></div><div data-bbox="510 417 554 431" data-label="Text"><pre>&lt;/head&gt;</pre></div><div data-bbox="510 430 550 443" data-label="Text"><pre>&lt;body&gt;</pre></div><div data-bbox="520 443 756 496" data-label="Text"><pre>&lt;form onsubmit="quote(); return false;"&gt;
    Symbol: &lt;input id="symbol" type="text" /&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;input type="submit" value="Get Quote" /&gt;</pre></div><div data-bbox="520 495 565 509" data-label="Text"><pre>&lt;/form&gt;</pre></div><div data-bbox="520 508 592 522" data-label="Text"><pre>&lt;br /&gt;&lt;br /&gt;</pre></div><div data-bbox="520 521 650 535" data-label="Text"><pre>&lt;div id="quotes"&gt;&lt;/div&gt;</pre></div><div data-bbox="520 534 592 548" data-label="Text"><pre>&lt;br /&gt;&lt;br /&gt;</pre></div><div data-bbox="520 547 799 561" data-label="Text"><pre>&lt;textarea cols="80" id="code" rows="16"&gt;&lt;/textarea&gt;</pre></div><div data-bbox="510 560 554 574" data-label="Text"><pre>&lt;/body&gt;</pre></div><div data-bbox="500 573 544 587" data-label="Text"><pre>&lt;/html&gt;</pre></div>
```

```
<!--
ajax11.html

Gets stock quote from quote7.php via Ajax, inserting result into DOM.
Also displays returned JSON in a textarea.

David J. Malan
Computer Science E-75
Harvard Extension School

-->

<!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">
  <head>
    <script type="text/javascript">
      // 

        // an XMLHttpRequest
        var xhr = null;

        /*
         * void
         * quote()
         *
         * Gets a quote.
         */
        function quote()
        {
          // instantiate XMLHttpRequest object
          try
          {
            xhr = new XMLHttpRequest();
          }
          catch (e)
          {
            xhr = new ActiveXObject("Microsoft.XMLHTTP");
          }

          // handle old browsers
          if (xhr == null)
          {
            alert("Ajax not supported by your browser!");
            return;
          }

          // get symbol
          var symbol = document.getElementById("symbol").value;

          // construct URL
          var url = "quote7.php?symbol=" + symbol;

          // get quote
          xhr.onreadystatechange =
          function()
          {
            // only handle loaded requests
            if (xhr.readyState == 4)
            {
              if (xhr.status == 200)
              {
                // evaluate JSON
                var quote = eval("(" + xhr.responseText + ")");

                // show JSON in textarea
                document.getElementById("code").value = xhr.responseText;

                // insert quote into DOM
                var div = document.createElement("div");
                var text = document.createTextNode(symbol + ": " + quote.price);

                div.appendChild(text);
                document.getElementById("quotes").appendChild(div);
              }
              else
                alert("Error with Ajax call!");
            }
          }
          xhr.open("GET", url, true);
          xhr.send(null);
        }

      // ]]&gt;
    &lt;/script&gt;
    &lt;title&gt;&lt;/title&gt;
  &lt;/head&gt;
  &lt;body&gt;
    &lt;form onsubmit="quote(); return false;"&gt;
      Symbol: &lt;input id="symbol" type="text" /&gt;
      &lt;br /&gt;&lt;br /&gt;
      &lt;input type="submit" value="Get Quote" /&gt;
    &lt;/form&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;div id="quotes"&gt;&lt;/div&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;textarea cols="80" id="code" rows="16"&gt;&lt;/textarea&gt;
  &lt;/body&gt;
&lt;/html&gt;</pre></div>
```

&lt;!--

ajax12.html

Gets stock quote from quote7.php via Ajax, using YUI's Connection Manager, embedding result in page itself.

David J. Malan  
Computer Science E-75  
Harvard Extension School

--&gt;

```
<!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">
<head>
<script src="http://yui.yahooapis.com/2.5.0/build/yahoo/yahoo.js"></script>
<script src="http://yui.yahooapis.com/2.5.0/build/event/event.js"></script>
<script src="http://yui.yahooapis.com/2.5.0/build/connection/connection.js"></scri
pt>
<script type="text/javascript">
// 

/*
 * void
 * quote()
 *
 * Gets a quote.
 */
function quote()
{
    // get symbol
    var symbol = document.getElementById("symbol").value;

    // construct URL
    var url = "quote7.php?symbol=" + symbol;

    // make call
    YAHOO.util.Connect.asyncRequest("GET", url, { success: handler });
}

/*
 * void
 * handler()
 *
 * Handles the Ajax response.
 */
function handler(o)
{
    // evaluate JSON
    var quote = eval("(" + o.responseText + ")");

    // insert quote into page
    document.getElementById("quote").innerHTML = quote.price;
}

// ]]&gt;
&lt;/script&gt;
&lt;title&gt;&lt;/title&gt;
&lt;/head&gt;
&lt;body&gt;</pre></div><div data-bbox="500 104 815 222" data-label="Text"><pre>&lt;form onsubmit="quote(); return false;"&gt;
    Symbol: &lt;input id="symbol" type="text" /&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;div id="quote"&gt;&lt;b&gt;quote will appear here!&lt;/b&gt;&lt;/div&gt;
    &lt;br /&gt;&lt;br /&gt;
    &lt;input type="submit" value="Get Quote" /&gt;
&lt;/form&gt;
&lt;/body&gt;
&lt;/html&gt;</pre></div>
```

```
<?
/**
 * quote1.php
 *
 * Outputs price of given symbol as text/html.
 *
 * David J. Malan
 * Computer Science E-75
 * Harvard Extension School
 */

// get quote
$handle = @fopen("http://download.finance.yahoo.com/d/quotes.csv?s={$_GET['symbol']}&f=e1l1", "r");
if ($handle !== FALSE)
{
    $data = fgetcsv($handle);
    if ($data !== FALSE && $data[0] == "N/A")
        print($data[1]);
    fclose($handle);
}
?>
```

```
<?
/**
 * quote2.php
 *
 * Outputs price, low, and high of given symbol as plain/text.
 *
 * David J. Malan
 * Computer Science E-75
 * Harvard Extension School
 */

// send MIME type
header("Content-type: text/plain");

// try to get quote
$handle = @fopen("http://download.finance.yahoo.com/d/quotes.csv?s={$_GET['symbol']}&f=ellhg", "r");
if ($handle !== FALSE)
{
    $data = fgetcsv($handle);
    if ($data !== FALSE && $data[0] == "N/A")
    {
        print("Price: {$data[1]}\n");
        print("High: {$data[2]}\n");
        print("Low: {$data[3]}");
    }
    fclose($handle);
}
?>
```

```
<?
/**
 * quote3.php
 *
 * Outputs price, low, and high of given symbol as text/html.
 *
 * David J. Malan
 * Computer Science E-75
 * Harvard Extension School
 */

// try to get quote
$handle = @fopen("http://download.finance.yahoo.com/d/quotes.csv?s={$_GET['symbol']}&f=ellhg", "r");
if ($handle !== FALSE)
{
    $data = fgetcsv($handle);
    if ($data !== FALSE && $data[0] == "N/A")
    {
        print("Price: {$data[1]}");
        print("<br />");
        print("High: {$data[2]}");
        print("<br />");
        print("Low: {$data[3]}");
    }
    fclose($handle);
}
?>
```

```
<?
/**
 * quote3.php
 *
 * Outputs price, low, and high of given symbol as text/html, after
 * inserting an artificial delay.
 *
 * David J. Malan
 * Computer Science E-75
 * Harvard Extension School
 */

// pretend server is slow
sleep(5);

// try to get quote
$handle = @fopen("http://download.finance.yahoo.com/d/quotes.csv?s={$_GET['symbol']}&f=e1l1hg", "r");
if ($handle !== FALSE)
{
    $data = fgetcsv($handle);
    if ($data !== FALSE && $data[0] == "N/A")
    {
        print("Price: {$data[1]}");
        print("<br />");
        print("High: {$data[2]}");
        print("<br />");
        print("Low: {$data[3]}");
    }
    fclose($handle);
}
?>
```



```
<?
/**
 * quote5.php
 *
 * Outputs price, low, and high of given symbol as text/xml.
 *
 * David J. Malan
 * Computer Science E-75
 * Harvard Extension School
 */

// set MIME type
header("Content-type: text/xml");

// output root element's start tag
print("<quote symbol='{$_GET['symbol']}'>");

// try to get quote
$handle = @fopen("http://download.finance.yahoo.com/d/quotes.csv?s={$_GET['symbol']}&f=ellhg", "r");
if ($handle !== FALSE)
{
    $data = fgetcsv($handle);
    if ($data !== FALSE && $data[0] == "N/A")
    {
        print("<price>{$data[1]}</price>");
        print("<high>{$data[2]}</high>");
        print("<low>{$data[3]}</low>");
    }
    fclose($handle);
}

// output root element's end tag
print("</quote>");
?>
```

```
<?
/**
 * quote6.php
 *
 * Outputs price, low, and high of given symbol in JSON format.
 *
 * David J. Malan
 * Computer Science E-75
 * Harvard Extension School
 */

// set MIME type
header("Content-type: application/json");

// try to get quote
$handle = @fopen("http://download.finance.yahoo.com/d/quotes.csv?s={$_GET['symbol']}&f=ellhg", "r");
if ($handle !== FALSE)
{
    $data = fgetcsv($handle);
    if ($data !== FALSE && $data[0] == "N/A")
    {
        if (is_numeric($data[1]))
            $price = $data[1];
        if (is_numeric($data[2]))
            $high = $data[2];
        if (is_numeric($data[3]))
            $low = $data[3];
    }
    fclose($handle);
}

// output JSON
print("{ price: $price, high: $high, low: $low }");
?>
```

```
<?
/**
 * quote7.php
 *
 * Outputs price, low, and high of given symbol in JSON format
 * using PHP's JSON extension.
 *
 * David J. Malan
 * Computer Science E-75
 * Harvard Extension School
 */

// defines a stock
class Stock
{
    public $price;
    public $high;
    public $low;
}

// set MIME type
header("Content-type: application/json");

// try to get quote
$handle = @fopen("http://download.finance.yahoo.com/d/quotes.csv?s={$_GET['symbol']}&f=ellhg", "r");
if ($handle !== FALSE)
{
    $data = fgetcsv($handle);
    if ($data !== FALSE && $data[0] == "N/A")
    {
        $stock = new Stock();

        if (is_numeric($data[1]))
            $stock->price = $data[1];
        if (is_numeric($data[2]))
            $stock->high = $data[2];
        if (is_numeric($data[3]))
            $stock->low = $data[3];
    }
    fclose($handle);
}

// output JSON
print(json_encode($stock));
?>
```