

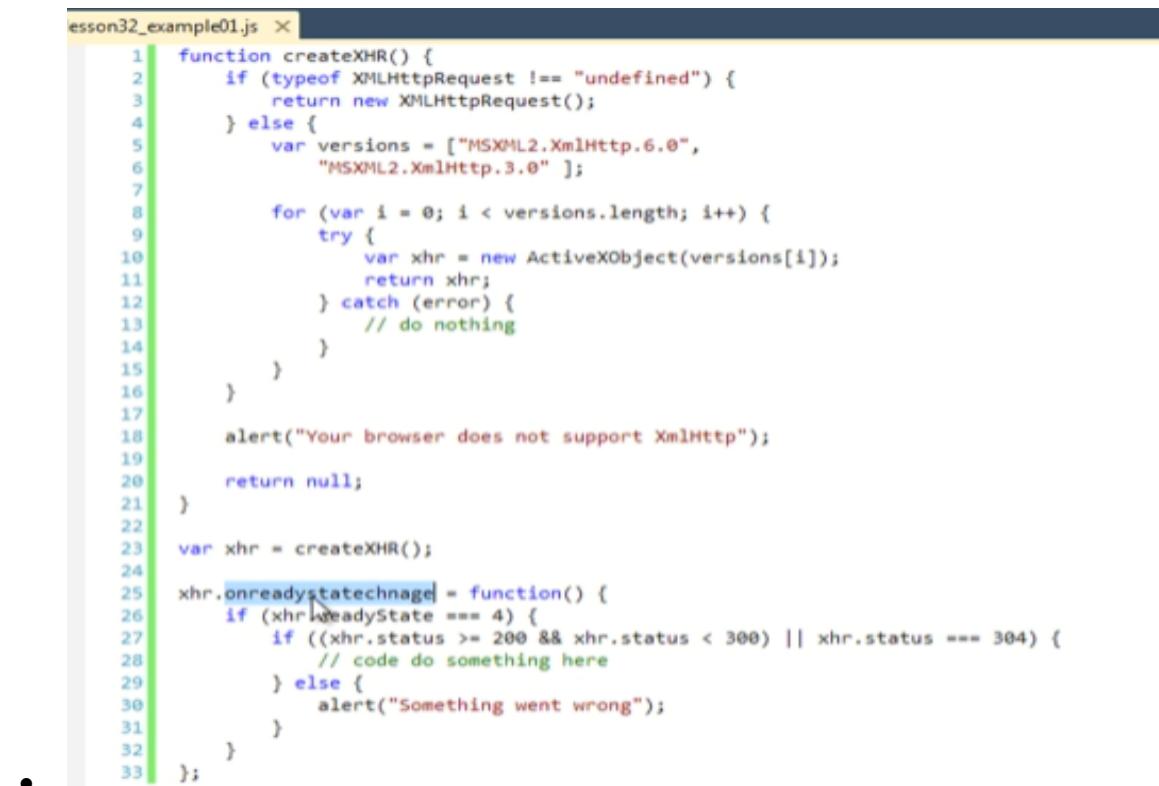
JSON

Lesson 31 Introduction to AJAX

Configure AJAX Environment

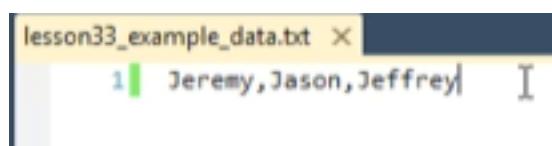
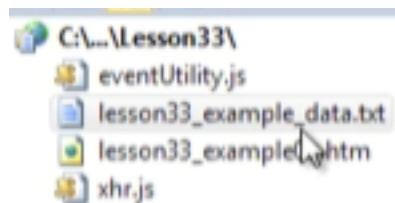
- Install the web server

Lesson 32 Creating XMLHttpRequest (XHR) Objects



```
lesson32_example01.js ×
1  function createXHR() {
2      if (typeof XMLHttpRequest !== "undefined") {
3          return new XMLHttpRequest();
4      } else {
5          var versions = ["MSXML2.XmlHttp.6.0",
6              "MSXML2.XmlHttp.3.0" ];
7
8          for (var i = 0; i < versions.length; i++) {
9              try {
10                  var xhr = new ActiveXObject(versions[i]);
11                  return xhr;
12              } catch (error) {
13                  // do nothing
14              }
15          }
16      }
17
18      alert("Your browser does not support XmlHttp");
19
20      return null;
21  }
22
23  var xhr = createXHR();
24
25  xhr.onreadystatechange = function() {
26      if (xhr.readyState === 4) {
27          if ((xhr.status >= 200 && xhr.status < 300) || xhr.status === 304) {
28              // code do something here
29          } else {
30              alert("Something went wrong");
31          }
32      }
33  };
●
```

Lesson 33 Making Ajax Request Using Get



```
lesson33_example_data.txt ×
1 | Jeremy, Jason, Jeffrey|
```

xhr.js*

```
1  function createXHR() {
2      if (typeof XMLHttpRequest !== "undefined") {
3          return new XMLHttpRequest();
4      } else {
5          var versions = [ "MSXML2.XmlHttp.6.0",
6              "MSXML2.XmlHttp.3.0" ];
7
8          for (var i = 0; i < versions.length; i++) {
9              try {
10                  var xhr = new ActiveXObject(versions[i]);
11                  return xhr;
12              } catch (error) {
13                  // do nothing
14              }
15          }
16      }
17
18      alert("Your browser does not support XmlHttp");
19
20      return null;
21  }

22
23  function makeGetRequest(url, callback) {
24      var xhr = createXHR();
25
26      xhr.open("GET", url);
27
28      xhr.onreadystatechange = function() {
29          if (xhr.readyState === 4) {
30              var status = xhr.status;
31
32              if ((status >= 200 && status < 300) || status === 304) {
33                  callback(xhr.responseText);
34              } else {
35                  alert("An error occurred");
36              }
37          }
38      };
39
40      xhr.send(null);
41  }
```

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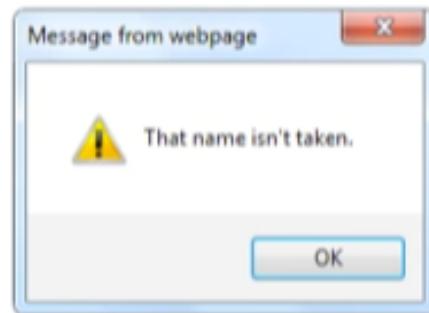
```
lesson33_example01.htm ×
```

```
1  <!DOCTYPE html>
2
3   <html>
4   <head>
5      <title>Lesson 33: Example 01</title>
6  </head>
7   <body>
8
9   <form name="theForm" action="" onsubmit="validateName(event)">
10     <input type="text" name="txtName" value="" />
11     <input type="submit" name="btnSubmit" value="Check Name" />
12 </form>
13
14
15 <script type="text/javascript" src="eventutility.js"></script>
16 <script type="text/javascript" src="xhr.js"></script>
17  <script type="text/javascript">
18     function validateName(event) {
19         var nameToVerify = document.theForm.txtName.value;
20         var button = document.theForm.btnSubmit;
21
22         if (nameToVerify === "") {
23             alert("Please enter a name");
24         } else {
25             button.disabled = true;
26             makeGetRequest("lesson33_example_data.txt", processData);
27         }
28     }
29     eventUtility.preventDefault(event);
30 }
```

```
31
32     function processData(data) {
33         var names = data.split(",");
34         var nameToVerify = document.theForm.txtName.value;
35         var button = document.theForm.btnSubmit;
36         var nameFound = false;
37
38         for (var i = 0; i < names.length; i++) {
39             var name = names[i];
40
41             if (name.toLowerCase() === nameToVerify.toLowerCase()) {
42                 nameFound = true;
43                 break;
44             }
45         }
46
47         if (nameFound) {
48             alert("That name is taken.");
49         } else {
50             alert("That name isn't taken.");
51         }
52
53         button.disabled = false;
54
55     }
56 
```

```
57 </body>
```

phillip



Lesson 34 Making Ajax Request Using Post



```
ajaxUtility.js*  X
1 var ajaxUtility = {
2     createXHR : function() {
3         if (typeof XMLHttpRequest !== "undefined") {
4             return new XMLHttpRequest();
5         } else {
6             var versions = [ "MSXML2.XmlHttp.6.0",
7                 "MSXML2.XmlHttp.3.0" ];
8
9             for (var i = 0; i < versions.length; i++) {
10                 try {
11                     var xhr = new ActiveXObject(versions[i]);
12                     return xhr;
13                 } catch (error) {
14                     // do nothing
15                 }
16             }
17         }
18
19         alert("Your browser does not support XmlHttp");
20
21         return null;
22     },
23 }
```

```
24     makeGetRequest : function(url, callback) {
25         var xhr = this.createXHR();
26
27         xhr.open("GET", url);
28
29         xhr.onreadystatechange = function() {
30             if (xhr.readyState === 4) {
31                 var status = xhr.status;
32
33                 if ((status >= 200 && status < 300) || status === 304) {
34                     callback(xhr.responseText);
35                 } else {
36                     alert("An error occurred");
37                 }
38             }
39         };
40
41         xhr.send(null);
42     },
43
44     getRequestBody : function(form) {
45         var pieces = [];
46         var elements = form.elements;
47
48         for (var i = 0; i < elements.length; i++) {
49             var element = elements[i];
50             var name = encodeURIComponent(element.name);
51             var value = encodeURIComponent(element.value);
52
53             pieces.push(name + "=" + value);
54         }
55
56         return pieces.join("&");
57     },
58 }
```

```

58
59     postFromForm : function(url, form, callback) {
60         var xhr = this.createXHR();
61         var data = this.getRequestBody(form);
62
63         xhr.open("POST", url);
64         xhr.setRequestHeader("Content-Type", "application/x-www-form-urlencoded");
65
66         xhr.onreadystatechange = function() {
67             if (xhr.readyState === 4) {
68                 var status = xhr.status;
69
70                 if ((status >= 200 && status < 300) || status === 304) {
71                     callback(xhr.responseText);
72                 } else {
73                     alert("An error occurred");
74                 }
75             }
76         };
77
78         xhr.send(data);
79     }
80 };

```

lesson34_example01.htm ×

```

1  <!DOCTYPE html>
2
3 <html>
4 <head>
5   <title>Lesson 34: Example 01</title>
6 </head>
7 <body>
8 <form name="theForm" method="post" action="ajax_post.php" onsubmit="addUser(event)">
9   <p>
10    Name: <input type="text" name="txtName" value="" />
11   </p>
12   <p>
13    Email: <input type="text" name="txtEmail" value="" />
14   </p>
15   <p>
16    <input type="submit" name="btnSubmit" value="Submit" />
17   </p>
18 </form>

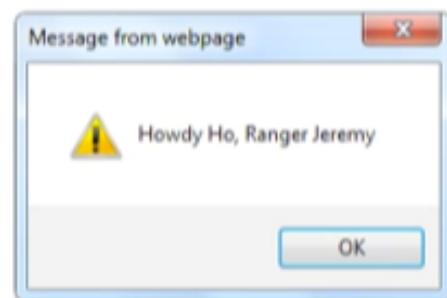
```

```
19 | <script type="text/javascript" src="eventutility.js"></script>
20 | <script type="text/javascript" src="ajaxUtility.js"></script>
21 | <script type="text/javascript">
22 |     function addUser(event) {
23 |         var theForm = document.theForm;
24 |         var name = theForm.txtName.value;
25 |         var email = theForm.txtEmail.value;
26 |         var button = theForm.btnSubmit;
27 |
28 |         button.disabled = true;
29 |
30 |         if (name === "" || email === "") {
31 |             alert("Please complete the form");
32 |             button.disabled = false;
33 |         } else {
34 |             ajaxUtility.postFromForm(theForm.action, theForm, processData);
35 |         }
36 |
37 |         eventUtility.preventDefault(event);
38 |     }
39 |
40 |     function processData(data) {
41 |         var button = document.theForm.btnSubmit;
42 |
43 |         alert(data);
44 |
45 |         button.disabled = false;
46 |     }
47 | </script>
48 | </body>
49 | </html>
```

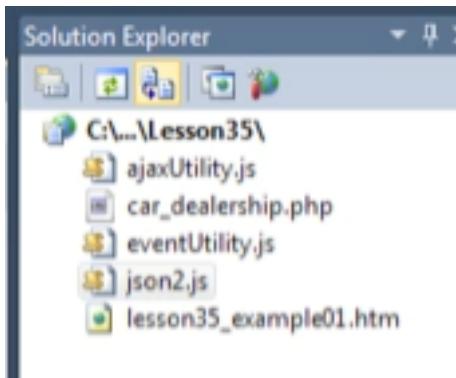
Output:

Name:

Email:



Lesson 35



What you need for legacy Browser



```

lesson35_example01.htm ×
5     <title>Lesson 35: Example 01</title>
6   </head>
7   <body>
8     <div id="divResults">
9       <div id="divSearchMessage"></div>
10      <div id="divSearchResults"></div>
11    </div>
12   <form name="theForm" method="post" action="car_dealership.php" onsubmit="submitForm(event);">
13     <p>
14       Make: <input type="text" name="txtMake" value="" />
15     </p>
16     <p>
17       Model: <input type="text" name="txtModel" value="" />
18     </p>
19     <p>
20       Year: <input type="text" name="txtYear" value="" />
21     </p>
22     <p>
23       <input type="submit" name="btnSubmit" value="Submit" />
24     </p>
25   </form>
26   <script type="text/javascript" src="eventutility.js"></script>
27   <script type="text/javascript" src="ajaxUtility.js"></script>
28   <script type="text/javascript" src="json2.js"></script>
29   <script type="text/javascript">
30     function submitForm(event) {
31       var data = ajaxUtility.getRequestBody(document.theForm);
32
33       ajaxUtility.makeGetRequest("car_dealership.php?" + data, processReponse);
34
35       eventUtility.preventDefault(event);
36     }
37
38 //{
39 //  "searchedCar" : {
40 //    "make" : "value",
41 //    "model" : "value",
42 //    "year" : numericValue
43 //  },
44 //  "isFound" : booleanValue,
45 //  "results" : [
46 //    {
47 //      "make" : "value",
48 //      "model" : "value",
49 //      "year" : numericValue
50 //    },
51 //    // more object structures if necessary
52 //  ]
53 //}

```

```
59 | function processResponse(data) {
60 |     var result = JSON.parse(data);
61 |     var messageDiv = document.getElementById("divSearchMessage");
62 |     var resultsDiv = document.getElementById("divSearchResults");
63 |     var message = "";
64 |     var results = [];
65 |     var length = result.results.length;
66 |     var carStr = getCarString(result.searchedCar);
67 |
68 |     if (result.isFound) {
69 |         message = "We found " + length + " matches for " + carStr;
70 |     } else {
71 |         message = "We could not find " + carStr + ". You might like: ";
72 |
73 |         for (var i = 0; i < length; i++) {
74 |             results.push(getCarString(result.results[i]));
75 |         }
76 |
77 |         resultsDiv.innerHTML = results.join("<br/>");
78 |     }
79 |
80 |     messageDiv.innerHTML = message;
81 |
82 |
83 | </script>
84 | </body>
85 | </html>
```

car_dealership.php X lesson35_example01.htm

```
1 <?php
2 header('Cache-Control: no-cache, must-revalidate');
3 //header('Content-type: application/json');
4
5 class Object {
6     function __construct( ) {
7         $n = func_num_args( );
8         for ( $i = 0 ; $i < $n ; $i += 2 ) {
9             $this->{func_get_arg($i)} = func_get_arg($i + 1) ;
10        }
11    }
12 }
13
14 function search_array_ig($needle, $haystack) {
15     $value = false;
16
17     while ( $model = current($haystack) ) {
18         if ( strtolower($needle) == strtolower($model)) {
19             return true;
20         }
21
22         next($haystack);
23     }
24
25     return false;
26 }
27
28 // a hack because I'm lazy
29 $makesIndexes = array("Toyota", "Ford", "Chevy", "Nissan");
30
31 $makes["toyota"] = array("Camry", "Corolla", "4Runner", "Tundra");
32 $makes["ford"] = array("Explorer", "Mustang", "F150");
33 $makes["chevy"] = array("Camaro", "Blazer", "Malibu");
34 $makes["nissan"] = array("Altima", "Maxima", "Murano", "Armada");
35
36 $make = $_GET["txtMake"];
37 $model = $_GET["txtModel"];
38 $year = (int)$_GET["txtYear"];
39 $isFound = false;
40
41 if ( $makes[strtolower($make)] != null) {
42     if (search_array_ig($model, $makes[strtolower($make)])) {
43         $isFound = true;
```

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```
car_dealership.php X
44     }
45 }
46
47 $resultCount = rand(1,5);
48
49 $results = array();
50
51 if ($isFound) {
52     for ($i = 0; $i < $resultCount; $i++) {
53         $yearRand = rand(1979, 2010);
54         $results[$i] = new Object("model", $model, "make", $make, "year", $yearRand);
55     }
56 } else {
57     for ($i = 0; $i < $resultCount; $i++) {
58         $makeRand = rand(0, sizeof($makes) - 1);
59         $modelRand = rand(0, sizeof($makes[$makeRand]) - 1);
60         $yearRand = rand(1979, 2010);
61
62         $results[$i] = new Object("model", $makes[strtolower($makesIndexes[$makeRand])][$modelRa
63     }
64 }
65
66 $response = new Object(
67     "searchedCar", new Object("model", $model, "make", $make, "year", $year),
68     "isFound", $isFound,
69     "results", $results
70 );
71
72
73
74 echo json_encode($response);
75 ?>
```

eventUtility.js ×

```
1  var eventUtility = {
2      addEvent : (function() {
3          if (typeof addEventListener !== "undefined") {
4              return function(obj, evt, fn) {
5                  obj.addEventListener(evt, fn, false);
6              };
7          } else {
8              return function(obj, evt, fn) {
9                  obj.attachEvent("on" + evt, fn);
10             };
11         }
12     })(),
13     removeEvent : (function() {
14         if (typeof removeEventListener !== "undefined") {
15             return function(obj, evt, fn) {
16                 obj.removeEventListener(evt, fn, false);
17             };
18         } else {
19             return function(obj, evt, fn) {
20                 obj.detachEvent("on" + evt, fn);
21             };
22         }
23     })(),
24     getTarget : (function() {
25         if (typeof addEventListener !== "undefined") {
26             return function(event) {
27                 return event.target;
28             };
29         } else {
30             return function(event) {
31                 return event.srcElement;
32             };
33         }
34     })(),
35     preventDefault : (function() {
36         if (typeof addEventListener !== "undefined") {
```

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```
37     }
38   })(),
39   preventDefault : (function() {
40     if (typeof addEventListener !== "undefined") {
41       return function(event) {
42         event.preventDefault();
43       };
44     } else {
45       return function(event) {
46         event.returnValue = false;
47       };
48     }
49   })()
50};
```

```
ajaxUtility.js ×

1  var ajaxUtility = {
2      createXHR : function() {
3          if (typeof XMLHttpRequest !== "undefined") {
4              return new XMLHttpRequest();
5          } else {
6              var versions = [ "MSXML2.XmlHttp.6.0",
7                  "MSXML2.XmlHttp.3.0" ];
8
9              for (var i = 0; i < versions.length; i++) {
10                 try {
11                     var xhr = new ActiveXObject(versions[i]);
12                     return xhr;
13                 } catch (error) {
14                     // do nothing
15                 }
16             }
17         }
18
19         alert("Your browser does not support XmlHttp");
20
21         return null;
22     },
23
24     makeGetRequest : function(url, callback) {
25         var xhr = this.createXHR();
26
27         xhr.open("GET", url);
28
29         xhr.onreadystatechange = function() {
30             if (xhr.readyState === 4) {
31                 var status = xhr.status;
32
33                 if ((status >= 200 && status < 300) || status === 304) {
34                     callback(xhr.responseText);
35                 } else {
36                     alert("An error occurred");
37                 }
38             }
39         };
40     }
41 }
```

```
37         }
38     }
39 }
40
41 xhr.send(null);
42 },
43
44 getRequestBody : function(form) {
45     var pieces = [];
46     var elements = form.elements;
47
48     for (var i = 0; i < elements.length; i++) {
49         var element = elements[i];
50         var name = encodeURIComponent(element.name);
51         var value = encodeURIComponent(element.value);
52
53         pieces.push(name + "=" + value);
54     }
55
56     return pieces.join("&");
57 },
58
59 postFromForm : function(url, form, callback) {
60     var xhr = this.createXHR();
61     var data = this.getRequestBody(form);
62
63     xhr.open("POST", url);
64     xhr.setRequestHeader("Content-Type", "application/x-www-form-urlencoded");
65
66     xhr.onreadystatechange = function() {
67         if (xhr.readyState === 4) {
68             var status = xhr.status;
69
70             if ((status >= 200 && status < 300) || status === 304) {
71                 callback(xhr.responseText);
72             } else {
73                 alert("An error occurred");
74             }
75         }
76     };
77
78     xhr.send(data);
79 },
80
```

```
81     makePostRequest : function(url, data, callback) {
82         var xhr = this.createXHR();
83
84         xhr.open("POST", url);
85
86         xhr.onreadystatechange = function() {
87             if (xhr.readyState === 4) {
88                 var status = xhr.status;
89                 if ((status >= 200 || status < 300) || status === 304) {
90                     callback(xhr.responseText);
91                 } else {
92                     alert("An error occurred");
93                 }
94             }
95         };
96
97         xhr.send(data);
98     }

```

We found 5 matches for 1980 toyota camry

Make:

Model:

Year:

Youtube JSON

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```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 var obj1 = { user:"John", age:22, country:"United States" };
6 var obj2 = { user:"Will", age:27, country:"United Kingdom" };
7 var obj3 = { user:"Abiel", age:19, country:"Mexico" };
8 var obj4 = { u1:obj1, u2:obj2, u3:obj3 };
9 document.write(obj1.user);
10 </script>
11 </head>
12 <body>
13 </body>
14 </html>
```

Outputs: John

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 var obj1 = { user:"John", age:22, country:"United States" };
6 var obj2 = { user:"Will", age:27, country:"United Kingdom" };
7 var obj3 = { user:"Abiel", age:19, country:"Mexico" };
8 var obj4 = { u1:obj1, u2:obj2, u3:obj3 };
9 document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "+obj3.country);
10 </script>
11 </head>
12 <body>
13 </body>
14 </html>
```

Outputs: Abiel is 19 yrs old and lives in Mexico

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 var obj1 = { user:"John", age:22, country:"United States" };
6 var obj2 = { user:"Will", age:27, country:"United Kingdom" };
7 var obj3 = { user:"Abiel", age:19, country:"Mexico" };
8 var obj4 = { u1:obj1, u2:obj2, u3:obj3 };
9 document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "+
10 obj3.country = "Italy";
11 document.write("<hr />");
12 document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "+
13 </script>
14 </head>
15 <body>
16 </body>
```

Abiel is 19 yrs old and lives in Mexico

Abiel is 19 yrs old and lives in Italy

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```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 var obj1 = { user:"John", age:22, country:"United States" };
6 var obj2 = { user:"Will", age:27, country:"United Kingdom" };
7 var obj3 = { user:"Abiel", age:19, country:"Mexico" };
8 var obj4 = { u1:obj1, u2:obj2, u3:obj3 };
9 document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "
10 obj3.country = "Italy";
11 document.write("<hr />");
12 document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "
13 document.write("<hr />");
14 document.write(obj4.u2.country); [
15 </script>
16 </head>
17 <body>
18 </body>
```



Abiel is 19 yrs old and lives in Mexico

Abiel is 19 yrs old and lives in Italy

United Kingdom

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 var obj1 = { user:"John", age:22, country:"United States" };
6 var obj2 = { user:"Will", age:27, country:"United Kingdom" };
7 var obj3 = { user:"Abiel", age:19, country:"Mexico" };
8 var obj4 = { u1:obj1, u2:obj2, u3:obj3 };
9 document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "
10 obj3.country = "Italy";
11 document.write("<hr />");
12 document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "
13 document.write("<hr />");
14 document.write(obj4.u2.user);
15 document.write("<hr />");
16 document.write(obj4["u2"]["user"]);
17 </script>
18 </head>
19 <body>
```



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Abiel is 19 yrs old and lives in Mexico

Abiel is 19 yrs old and lives in Italy

Will

Will



How to access Array

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 var obj1 = { user:"John", age:22, country:"United States" };
6 var obj2 = { user:"Will", age:27, country:"United Kingdom" };
7 var obj3 = { user:"Abiel", age:19, country:"Mexico" };
8 var obj4 = { u1:obj1, u2:obj2, u3:obj3 };
9 //document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "+obj3.country);
0 //obj3.country = "Italy";
1 //document.write("<hr />");
2 //document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "+obj3.country);
3 //document.write("<hr />");
4 //document.write(obj4.u2.user);
5 //document.write("<hr />");
6 //document.write(obj4["u2"]["user"]);
7 var meats = ["beef","pork","lamb"];
8 var fruit = ["apple","plumb","grape","orange"];
9 var obj5 = { arr1:meats, arr2:fruit };
0 document.write(obj5.arr1[1]);  I
1 </script>
2 </head>
3 <body>
4 </body>
```



Outputs: pork

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 var obj1 = { user:"John", age:22, country:"United States" };
6 var obj2 = { user:"Will", age:27, country:"United Kingdom" };
7 var obj3 = { user:"Abiel", age:19, country:"Mexico" };
8 var obj4 = { u1:obj1, u2:obj2, u3:obj3 };
9 //document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "+obj3.country);
10 //obj3.country = "Italy";
11 //document.write("<hr />");
12 //document.write(obj3.user+" is "+obj3.age+" yrs old and lives in "+obj3.country);
13 //document.write("<hr />");
14 //document.write(obj4.u2.user);
15 //document.write("<hr />");
16 //document.write(obj4["u2"]["user"]);
17 var meats = ["beef","pork","lamb"];
18 var fruit = ["apple","plumb","grape","orange"];
19 var obj5 = { arr1:meats, arr2:fruit };
20 document.write(obj5.arr1[1]+" with "+obj5.arr2[0]+" for dinner");
21 </script>
22 </head>
23 <body>
```

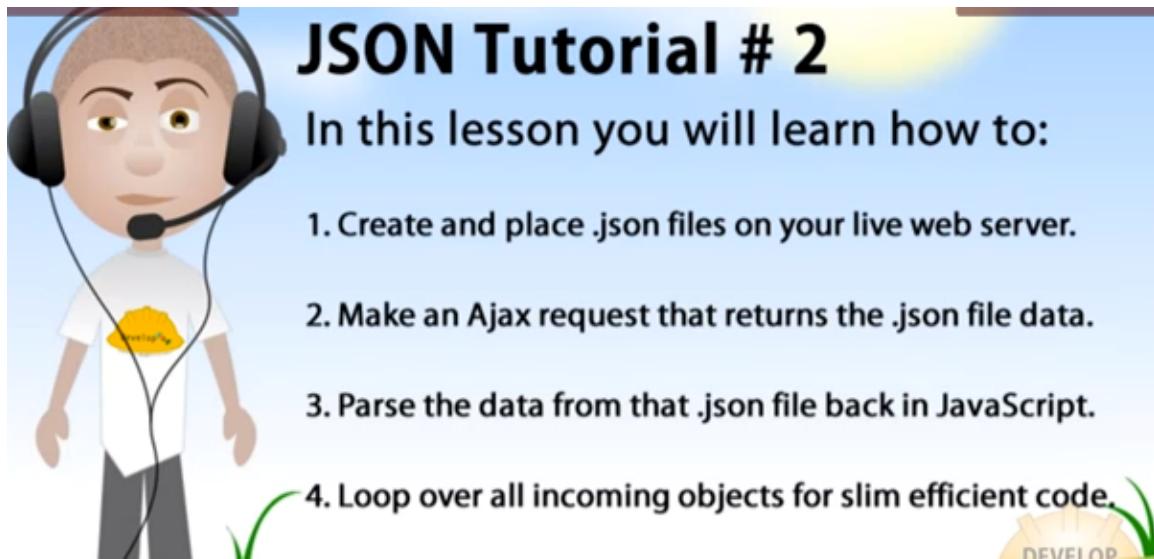


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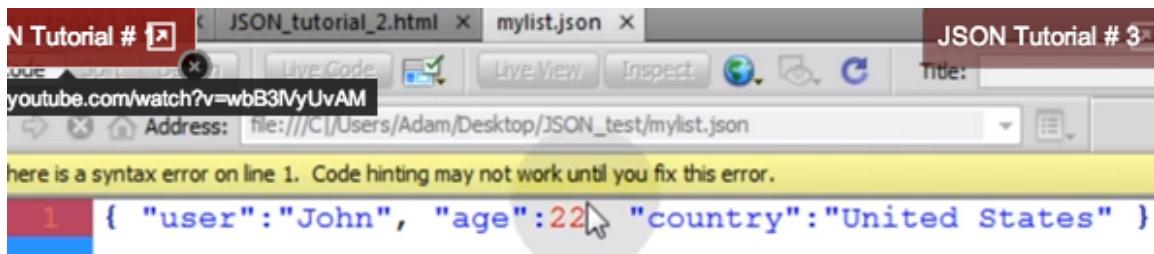
pork with apple for dinner



JSON Tutorial # 2

In this lesson you will learn how to:

1. Create and place .json files on your live web server.
2. Make an Ajax request that returns the .json file data.
3. Parse the data from that .json file back in JavaScript.
4. Loop over all incoming objects for slim efficient code.



here is a syntax error on line 1. Code hinting may not work until you fix this error.

```
1 { "user": "John", "age":22 "country": "United States" }
```

Copy from developphp.com

Original Code: Watch the Video for more detail use of the function

```
4 <script type="text/javascript">
5     function ajax_post() {
6         // Create our XMLHttpRequest object
7         var hr = new XMLHttpRequest();
8         // Create some variables we need to send to our PHP file
9         var url = "my_parse_file.php";
10        var fn = document.getElementById("first_name").value;
11        var ln = document.getElementById("last_name").value;
12        var vars = "firstname=" + fn + "&lastname=" + ln;
13        hr.open("POST", url, true);
14        // Set content type header information for sending url encoded variables in the request
15        hr.setRequestHeader("Content-type", "application/x-www-form-urlencoded");
16        // Access the onreadystatechange event for the XMLHttpRequest object
17        hr.onreadystatechange = function() {
18            if(hr.readyState == 4 && hr.status == 200) {
19                var return_data = hr.responseText;
20                document.getElementById("status").innerHTML = return_data;
21            }
22        }
23        // Send the data to PHP now... and wait for response to update the status
24        hr.send(vars); // Actually execute the request
25        document.getElementById("status").innerHTML = "processing...";
```

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```

4 <script type="text/javascript">
5     function ajax_post() {
6         var hr = new XMLHttpRequest();
7         var url = "my_parse_file.php";
8         var fn = document.getElementById("first_name").value;
9         var ln = document.getElementById("last_name").value;
10        var vars = "firstname="+fn+"&lastname="+ln;
11        hr.open("POST", "my_parse_file.php", true);
12        hr.setRequestHeader("Content-type", "application/x-www-form-urlencoded");
13        hr.onreadystatechange = function() {
14            if(hr.readyState == 4 && hr.status == 200) {
15                var return_data = hr.responseText;
16                document.getElementById("status").innerHTML = return_data;
17            }
18        }
19        hr.send(vars);
20        document.getElementById("status").innerHTML = "processing...";
```



Slowly Cleanup the function

```

1 <!DOCTYPE html>
2 <html>
3 <head>
4     <script type="text/javascript">
5         function ajax_post() {
6             var hr = new XMLHttpRequest();
7             hr.open("GET", "mylist.json", true);
8             hr.setRequestHeader("Content-type", "application/json", true);
9             hr.onreadystatechange = function() {
10                 if(hr.readyState == 4 && hr.status == 200) {
11                     //hr.responseText
12                 }
13             }
14             hr.send(null);
15             document.getElementById("results").innerHTML = "processing...";
```

Final Changes

```

1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 function ajax_get_json(){
6     var hr = new XMLHttpRequest();
7     hr.open("GET", "mylist.json", true);
8     hr.setRequestHeader("Content-type", "application/json", true);
9     hr.onreadystatechange = function() {
10         if(hr.readyState == 4 && hr.status == 200) {
11             var data = JSON.parse(hr.responseText);
12             var results = document.getElementById("results");
13             results.innerHTML = data.user;
14         }
15     }
16     hr.send(null);
17     results.innerHTML = "requesting...";
18 }
19 </script>

```



Outputs: John

Syntax errors:

```

1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 function ajax_get_json(){
6     var hr = new XMLHttpRequest();
7     hr.open("GET", "mylist.json", true);
8     hr.setRequestHeader("Content-type", "application/json", true);
9     hr.onreadystatechange = function() {
10         if(hr.readyState == 4 && hr.status == 200) {
11             var data = JSON.parse(hr.responseText);
12             var results = document.getElementById("results");
13             results.innerHTML = data.user+" is "+data.age+" and lives in "+data.country;
14         }
15     }
16     hr.send(null);
17     results.innerHTML = "requesting...";
18 }
19 </script>

18 </head>
19 <body>
20 <div id="results"></div>
21 <script type="text/javascript">ajax_get_json();</script>
22 </body>
23 </html>

```



ON Tutorial # 1

Address: file:///C:/Users/Adam/Desktop/JSON_test/mylist.json

There is a syntax error on line 1. Code hinting may not work until you fix this error.

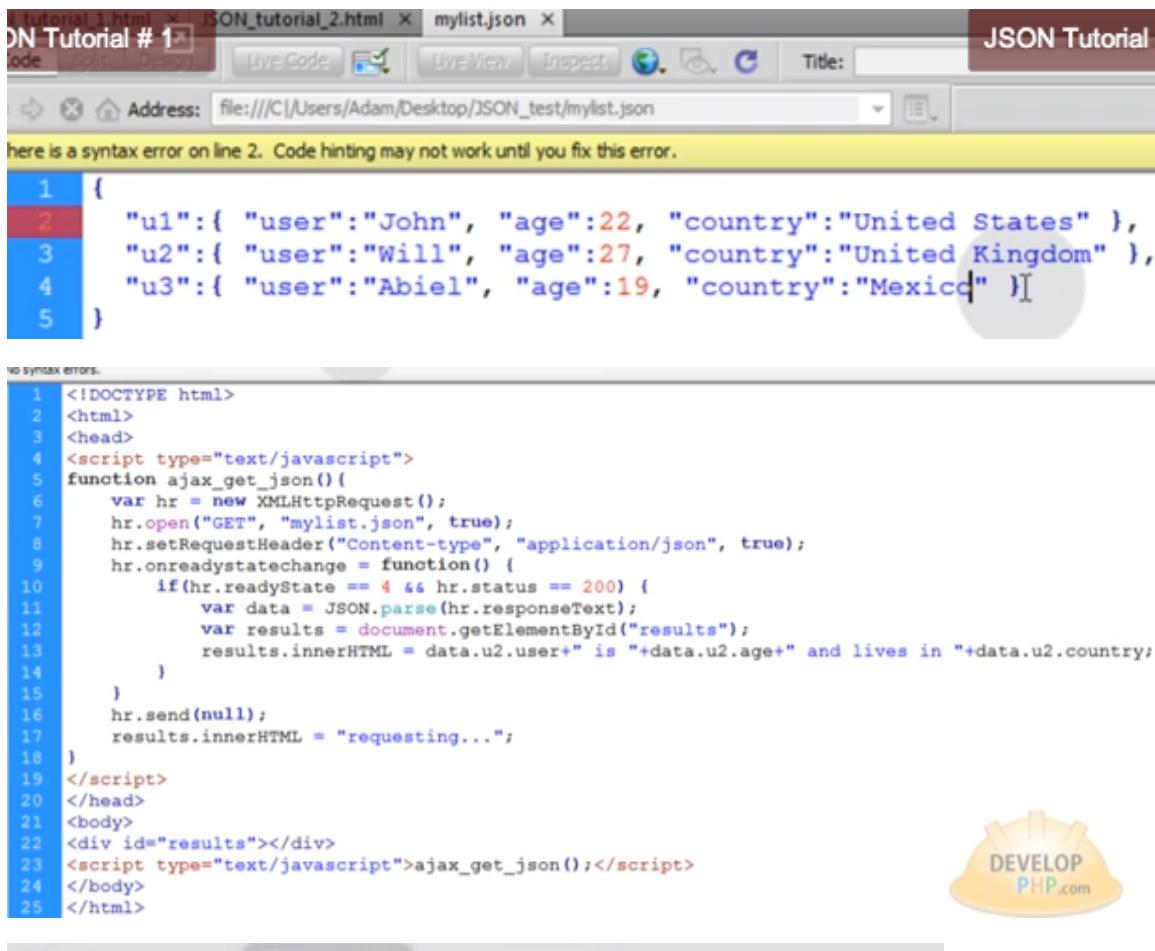
```

1 { "user":"John", "age":22, "country":"United States" }

```

Outputs:

John is 22 and lives in United States



The screenshot shows a browser window titled "JSON Tutorial" with the address bar pointing to "file:///C:/Users/Adam/Desktop/JSON_test/mylist.json". A yellow status bar at the bottom of the browser window displays the message "here is a syntax error on line 2. Code hinting may not work until you fix this error.". The code editor shows the following JSON and JavaScript code:

```
1 {
2     "u1": { "user": "John", "age": 22, "country": "United States" },
3     "u2": { "user": "Will", "age": 27, "country": "United Kingdom" },
4     "u3": { "user": "Abiel", "age": 19, "country": "Mexico" }
5 }
```

```
no syntax errors.
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 function ajax_get_json(){
6     var hr = new XMLHttpRequest();
7     hr.open("GET", "mylist.json", true);
8     hr.setRequestHeader("Content-type", "application/json", true);
9     hr.onreadystatechange = function() {
10         if(hr.readyState == 4 && hr.status == 200) {
11             var data = JSON.parse(hr.responseText);
12             var results = document.getElementById("results");
13             results.innerHTML = data.u2.user + " is " + data.u2.age + " and lives in " + data.u2.country;
14         }
15     }
16     hr.send(null);
17     results.innerHTML = "requesting...";
18 }
19 </script>
20 </head>
21 <body>
22 <div id="results"></div>
23 <script type="text/javascript">ajax_get_json();</script>
24 </body>
25 </html>
```

A small yellow icon of a person wearing a hard hat with the text "DEVELOP PHP.com" is visible on the right side of the browser window.

Will is 27 and lives in United Kingdom

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```

4 <script type="text/javascript">
5   w.youtube.com/watch?v=wbB3lMyUvAM () {
6     var hr = new XMLHttpRequest();
7     hr.open("GET", "mylist.json", true);
8     hr.setRequestHeader("Content-type", "application/json", true);
9     hr.onreadystatechange = function() {
10       if(hr.readyState == 4 && hr.status == 200) {
11         var data = JSON.parse(hr.responseText);
12         var results = document.getElementById("results");
13         results.innerHTML = "";
14         for(var obj in data){
15           results.innerHTML += data[obj].user+" is in my list <br />";
16         }
17       }
18     }
19     hr.send(null);
20     results.innerHTML = "requesting...";
21   }
22 </script>
23 </head>
24 <body>
25 <div id="results"></div>
26 <script type="text/javascript">ajax_get_json();</script>

```



```

1 {
2   "u1":{ "user":"John", "age":22, "country":"United States" },
3   "u2":{ "user":"Will", "age":27, "country":"United Kingdom" },
4   "u3":{ "user":"Abiel", "age":19, "country":"Mexico" },
5   "u4":{ "user":"Rick", "age":34, "country":"Panama" },
6   "u5":{ "user":"Susan", "age":23, "country":"Germany" },
7   "u6":{ "user":"Amy", "age":43, "country":"France" },
8   "u7":{ "user":"Pete", "age":18, "country":"Italy" },
9   "u8":{ "user":"Chris", "age":25, "country":"United States" },
10  "u9":{ "user":"Louis", "age":31, "country":"Spain" },
11  "u10":{ "user":"Emily", "age":38, "country":"Uruguay" },
12  "u11":{ "user":"Shawn", "age":52, "country":"Chile" },
13  "u12":{ "user":"Greg", "age":24, "country":"Romania" }
14 }

```



Outputs:

JSON Tutorial # 1 XML X www.adamkhoury.com/de

www.adamkhoury.com/demo/JSON/JSON_tutorial_2.html

DevelopPHP Adam Khoury YouTube - flashbu... World of Webcraft - ... PMA

John is in my list
Will is in my list
Abiel is in my list
Rick is in my list
Susan is in my list
Amy is in my list
Pete is in my list
Chris is in my list
Louis is in my list
Emily is in my list
Shawn is in my list
Greg is in my list

```
syntax errors.
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 function ajax_get_json(){
6     var hr = new XMLHttpRequest();
7     hr.open("GET", "mylist.json", true);
8     hr.setRequestHeader("Content-type", "application/json", true);
9     hr.onreadystatechange = function() {
10         if(hr.readyState == 4 && hr.status == 200) {
11             var data = JSON.parse(hr.responseText);
12             var results = document.getElementById("results");
13             results.innerHTML = "";
14             for(var obj in data){
15                 results.innerHTML += data[obj].user+" is "+data[obj].age+" and lives in "+data[obj].country;
16             }
17         }
18     }
19     hr.send(null);
20     results.innerHTML = "requesting...";
21 }
22 </script>
23 </head>
24 <body>
25 <div id="results"></div>
26 <script type="text/javascript">ajax_get_json();</script>
```



.country+"

|";

The screenshot shows a browser window with several tabs open. The active tab is titled 'mylist.json' and contains the following JSON code:

```
1 {
2   "u1": { "user": "John", "age": 22, "country": "United States" },
3   "u2": { "user": "Will", "age": 27, "country": "United Kingdom" },
4   "u3": { "user": "Abiel", "age": 19, "country": "Mexico" },
5   "u4": { "user": "Rick", "age": 34, "country": "Panama" },
6   "u5": { "user": "Susan", "age": 23, "country": "Germany" },
7   "u6": { "user": "Amy", "age": 43, "country": "France" },
8   "u7": { "user": "Pete", "age": 18, "country": "Italy" },
9   "u8": { "user": "Chris", "age": 25, "country": "United States" },
10  "u9": { "user": "Louis", "age": 31, "country": "Spain" },
11  "u10": { "user": "Emily", "age": 38, "country": "Uruguay" },
12  "u11": { "user": "Shawn", "age": 52, "country": "Chile" },
13  "u12": { "user": "Greg", "age": 24, "country": "Romania" }
14 }
```

A yellow bar at the top of the code editor area displays the message: "There is a syntax error on line 2. Code hinting may not work until you fix this error."

Outputs:

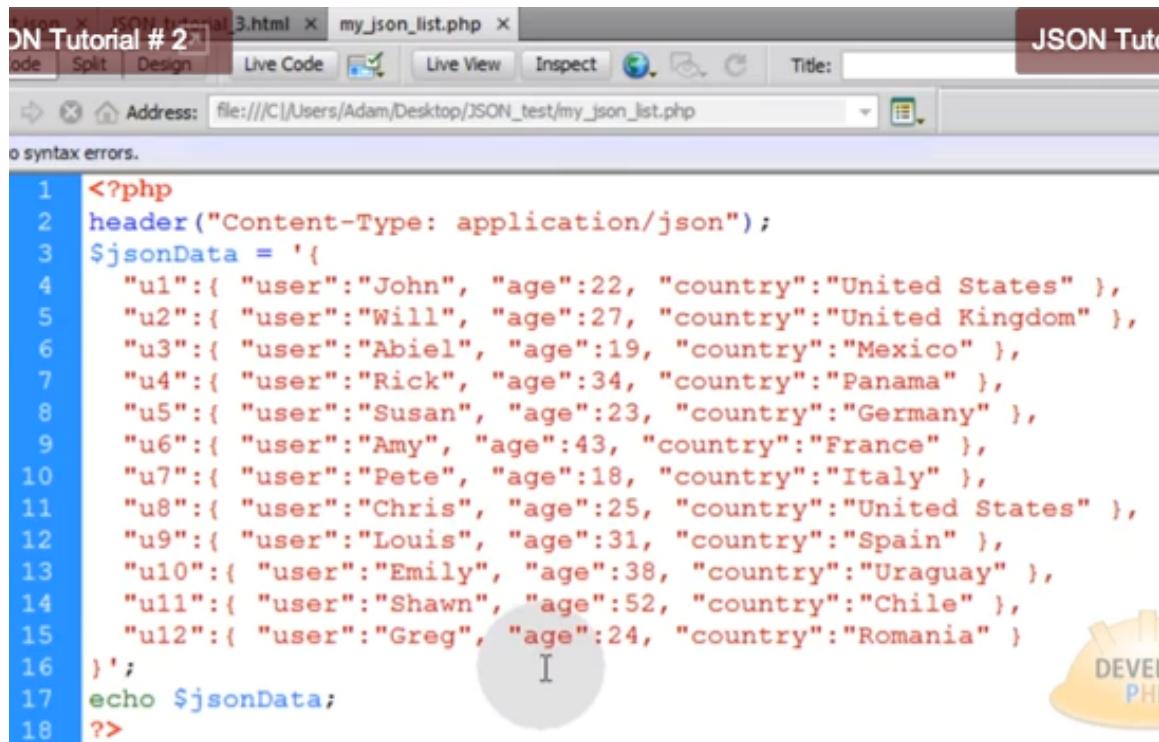
The screenshot shows a browser window with the title 'JSON Tutorial # 1'. The page content displays the following list of users:

- John is 22 and lives in United States
- Will is 27 and lives in United Kingdom
- Abiel is 19 and lives in Mexico
- Rick is 34 and lives in Panama
- Susan is 23 and lives in Germany
- Amy is 43 and lives in France
- Pete is 18 and lives in Italy
- Chris is 25 and lives in United States
- Louis is 31 and lives in Spain
- Emily is 38 and lives in Uruguay
- Shawn is 52 and lives in Chile
- Greg is 24 and lives in Romania

JSON Tutorial # 3

In this lesson you will learn how to:

1. Use php's header() function to set content type to JSON.
2. Use php's file_get_contents() to read a static JSON file.
3. Make PHP echo JSON data back to your Ajax request.



The screenshot shows a browser window titled "JSON Tutorial # 2". The address bar shows "file:///C:/Users/Adam/Desktop/JSON_test/my_json_list.php". The code editor contains the following PHP script:

```
1 <?php
2 header("Content-Type: application/json");
3 $jsonData = '{
4     "u1":{ "user":"John", "age":22, "country":"United States" },
5     "u2":{ "user":"Will", "age":27, "country":"United Kingdom" },
6     "u3":{ "user":"Abiel", "age":19, "country":"Mexico" },
7     "u4":{ "user":"Rick", "age":34, "country":"Panama" },
8     "u5":{ "user":"Susan", "age":23, "country":"Germany" },
9     "u6":{ "user":"Amy", "age":43, "country":"France" },
10    "u7":{ "user":"Pete", "age":18, "country":"Italy" },
11    "u8":{ "user":"Chris", "age":25, "country":"United States" },
12    "u9":{ "user":"Louis", "age":31, "country":"Spain" },
13    "u10":{ "user":"Emily", "age":38, "country":"Uruguay" },
14    "u11":{ "user":"Shawn", "age":52, "country":"Chile" },
15    "u12":{ "user":"Greg", "age":24, "country":"Romania" }
16 }';
17 echo $jsonData;
18 ?>
```

A small yellow icon with the text "DEVE PHI" is visible on the right side of the screen.

- the header lets the browser know it is a json data
- Other way to write:



ON Tutorial # 2

tutorial_3.html x my_json_list.php x JSON

Split Design Live Code Live View Inspect Title:

Address: file:///C:/Users/Adam/Desktop/JSON_test/my_json_list.php

ax errors.

```
<?php
header("Content-Type: application/json");
$jsonData = file_get_contents("mylist.json");
echo $jsonData;
?>
```

ON Tutorial # 2

tutorial_3.html x my_json_list.php x JSON Tutorial # 4

Code Split Design Live Code Live View Inspect Title:

Address: file:///C:/Users/Adam/Desktop/JSON_test/JSON_tutorial_3.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 function ajax_get_json(){
6     var results = document.getElementById("results");
7     var hr = new XMLHttpRequest();
8     hr.open("GET", "my_json_list.php", true);
9     hr.setRequestHeader("Content-type", "application/json", true);
10    hr.onreadystatechange = function() {
11        if(hr.readyState == 4 && hr.status == 200) {
12            var data = JSON.parse(hr.responseText);
13            results.innerHTML = "";
14            for(var obj in data){
15                results.innerHTML += data[obj].user+" is "+data[obj].age
16            }
17        }
18    }
19    hr.send(null);
```

- notice: my_json_list.php is a php file

JSON Tutorial # 2

www.adamkhoury.com/demo/JSON/JSON_tutorial_3.html

DevelopPHP Adam Khoury YouTube - flashbuil... World of Webcraft - ... PMA

John is 22 and lives in United States

Will is 27 and lives in United Kingdom

Abiel is 19 and lives in Mexico

Rick is 34 and lives in Panama

Susan is 23 and lives in Germany

Amy is 43 and lives in France

Pete is 18 and lives in Italy

Chris is 25 and lives in United States

Louis is 31 and lives in Spain

Emily is 38 and lives in Uruguay

Shawn is 52 and lives in Chile

Greg is 24 and lives in Romania

- The Same output as toturial 2

JSON Tutorial # 4

In this lesson you will learn how to:

1. Make your JSON Ajax data requests more dynamic by POSTing variables to your dynamic PHP JSON files that we learned how to make in Tutorial #3.
2. Use php's `json_decode()` and `json_encode()` functions to more easily format JSON data handling with PHP.

JSON Tutorial # 3

No syntax errors.

```

1 <!DOCTYPE html>
2 <html>
3 <head>
4 <script type="text/javascript">
5 function ajax_get_json(){
6     var results = document.getElementById("results");
7     var hr = new XMLHttpRequest();
8     hr.open("POST", "my_json_list.php", true);
9     hr.setRequestHeader("Content-type", "application/x-www-form-urlencoded");
10    hr.onreadystatechange = function() {
11        if(hr.readyState == 4 && hr.status == 200) {
12            var data = JSON.parse(hr.responseText);
13            results.innerHTML = "";
14            for(var obj in data){
15                results.innerHTML += "Property A: "+data[obj].propertyA+"<br />";
16                results.innerHTML += "Property B: "+data[obj].propertyB;
17            }
18        }
19    }
20    hr.send("var1=birds&var2=bees");
21    results.innerHTML = "requesting...";
22 }
23 </script>
24 </head>
25 <body>
<div id="results"></div>

```

JSON Tutorial # 3

No syntax errors.

```

1 <?php
2 header("Content-Type: application/json");
3 $var1 = $_POST["var1"];
4 $var2 = $_POST["var2"];
5 $jsonData = '{ "obj1":{ "propertyA":"'". $var1 .'", "propertyB":"'". $var2 .'" } }';
6 echo $jsonData;
7 ?>

```

Output:

Property A: birds

Property B: bees

Json Decode: Json to PHP

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Json Encode: PHP to Json

Created with



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