**Assignment 12**

**1. <Bài tập thực hiện cá nhân> Thực hành các bài tập sau trong bài Lab11-2 Javascript \_ AJAX: sinh viên nộp bài vào thư mục con trong repository cá nhân trên BitBucket (**[**https://bitbucket.org/**](https://bitbucket.org/)**)**

## Exercise 2 – AJAX & MySQL example

### AJAX Database Example

The following example will demonstrate how a web page can fetch information from a database with AJAX:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Example   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Top of Form  Bottom of Form   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Firstname** | **Lastname** | **Age** | **Hometown** | **Job** | | Peter | Griffin | 41 | Quahog | Brewery | | |

### Create the User table in MySQL Database

The database table we use in the example above looks like this:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **id** | **FirstName** | **LastName** | **Age** | **Hometown** | **Job** |
| 1 | Peter | Griffin | 41 | Quahog | Brewery |
| 2 | Lois | Griffin | 40 | Newport | Piano Teacher |
| 3 | Joseph | Swanson | 39 | Quahog | Police Officer |
| 4 | Glenn | Quagmire | 41 | Quahog | Pilot |

### Create the HTML Page

When a user selects a user in the dropdown list above, a function called "showUser()" is executed. The function is triggered by the "onChange" event:

|  |
| --- |
| <html> <head> <script type="text/javascript"> function showUser(str){  if (str=="") {   document.getElementById("txtHint").innerHTML="";   return;   }   if (window.XMLHttpRequest){  // code for IE7+, Firefox, Chrome, Opera, Safari    xmlhttp=new XMLHttpRequest();   }  else {  // code for IE6, IE5   xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");  }  xmlhttp.onreadystatechange=function() {    if (xmlhttp.readyState==4 && xmlhttp.status==200){      document.getElementById("txtHint").innerHTML=xmlhttp.responseText;     }   }  xmlhttp.open("GET","getuser.php?q="+str,true);  xmlhttp.send(); } </script> </head> <body>  <form> <select name="users" onchange="showUser(this.value)"> <option value="">Select a person:</option> <option value="1">Peter Griffin</option> <option value="2">Lois Griffin</option> <option value="3">Glenn Quagmire</option> <option value="4">Joseph Swanson</option> </select> </form> <br /> <div id="txtHint"><b>Person info will be listed here.</b></div>  </body> </html> |

The showUser() function does the following:

* Check if a person is selected
* Create an XMLHttpRequest object
* Create the function to be executed when the server response is ready
* Send the request off to a file on the server
* Notice that a parameter (q) is added to the URL (with the content of the dropdown list)

### Create the PHP File

The page on the server called by the JavaScript above is a PHP file called "getuser.php".

The source code in "getuser.php" runs a query against a MySQL database, and returns the result in an HTML table:

|  |
| --- |
| <?php $q=$\_GET["q"];  $con = mysql\_connect('localhost', 'peter', 'abc123'); if (!$con) {   die('Could not connect: ' . mysql\_error()); }  mysql\_select\_db("ajax\_demo", $con);  $sql="SELECT \* FROM user WHERE id = '".$q."'";  $result = mysql\_query($sql);  echo "<table border='1'> <tr> <th>Firstname</th> <th>Lastname</th> <th>Age</th> <th>Hometown</th> <th>Job</th> </tr>";  while($row = mysql\_fetch\_array($result)) {   echo "<tr>";   echo "<td>" . $row['FirstName'] . "</td>";   echo "<td>" . $row['LastName'] . "</td>";   echo "<td>" . $row['Age'] . "</td>";   echo "<td>" . $row['Hometown'] . "</td>";   echo "<td>" . $row['Job'] . "</td>";   echo "</tr>"; } echo "</table>";  mysql\_close($con); ?> |

**Explanation:** When the query is sent from the JavaScript to the PHP file, the following happens:

* PHP opens a connection to a MySQL server
* The correct person is found
* An HTML table is created, filled with data, and sent back to the "txtHint" placeholder

## Exercise 3 – Validate inputs (JS)

Create a register form and validate inputs in the form (username… not null, email, telephone in the right format…)

## Exercise 4 – Search suggestions by AJAX

Develop a PHP application which allows users to search product information of your company. Everytime users enter any character in the product name, provide suggestions corresponding with entered characters. Using AJAX to complete the exercise.