## 实验五 Ajax基础

### 一、实验目的

1．了解AJAX的工作原理。

2．了解jQuery中AJAX的基本使用方法。

### 二、实验内容

1. 利用传统的方法异步获取数据；

2. 自动校验的表单中输入的数据；

3. JQuery制作自动提示的文本框(选做)。

### 三、实验步骤

注意：要安装好WAMP服务器。

1. 利用传统的方法异步获取数据(本实验有两个文件)。

**8-1-1.html文件代码：**

<html>

<head>

<meta http-equiv="Content-Type" content="text/html;charset=UTF-8">

<title>Ajax获取数据过程</title>

<script language="javascript">

var xmlHttp;

function createXMLHttpRequest(){

if(window.ActiveXObject)

xmlHttp = new ActiveXObject("Microsoft.XMLHTTP");

else if(window.XMLHttpRequest)

xmlHttp = new XMLHttpRequest();

}

function startRequest(){

createXMLHttpRequest();

xmlHttp.open("GET","8-1-1.php",true);

xmlHttp.onreadystatechange = function(){

if(xmlHttp.readyState == 4 && xmlHttp.status == 200)

document.getElementById("target").innerHTML = xmlHttp.responseText;

}

xmlHttp.send(null);

}

</script>

</head>

<body>

<input type="button" value="测试异步通讯" onClick="startRequest()">

<br><br>

<div id="target"></div>

</body>

</html>

**8-1-1.php文件代码**

<?php

header("Content-type: text/html; charset=utf-8");

echo “异步加载测试成功，很高兴”;

?>

2. 自动验证表单中输入的数据。

**8-3-1.html文件代码：**

<html>

<head>

<meta http-equiv="Content-Type" content="text/html;charset=UTF-8">

<title>自动校验的表单</title>

<style type="text/css">

<!--

form{

padding:0px; margin:0px;

font-size:12px;

font-family:Arial, Helvetica, sans-serif;

}

input{

border:1px solid #004082;

font-size:12px;

请自行下载相应的jquey文件

font-family:Arial, Helvetica, sans-serif;

}

-->

</style>

<script language="javascript" src="jquery-1.11.2.min.js "></script>

<script language="javascript">

$(function(){

$("#UserResult").ajaxSend(function(){

//定义全局函数

$(this).html("<font style='background:#990000; color:#FFFFFF;'>loading... </font>");

});

});

function showResult(sText){

var oSpan = document.getElementById("UserResult");

oSpan.innerHTML = sText;

if(sText.indexOf("already exists") >= 0)

//如果用户名已被占用

oSpan.style.color = "red";

else

oSpan.style.color = "black";

}

function startCheck(oInput){

//首先判断是否有输入，没有输入直接返回，并提示

if(!oInput.value){

oInput.focus(); //聚焦到用户名的输入框

$("#UserResult").html("User cannot be empty.");

return;

}

$.get("8-3-2.php",{user:oInput.value.toLowerCase()},

//用jQuery来获取异步数据

function(data){

showResult(decodeURI(data));

}

);

}

</script>

</head>

<body>

<form name="register">

<table cellpadding="5" cellspacing="0" border="0">

<tr><td>用户名:</td><td><input type="text" onblur="startCheck(this)" name="User"></td> <td><span id="UserResult"></span></td> </tr>

<tr><td>输入密码:</td><td><input type="password" name="passwd1"></td> <td></td> </tr>

<tr><td>确认密码:</td><td><input type="password" name="passwd2"></td> <td></td> </tr>

<tr>

<td colspan="2" align="center">

<input type="submit" value="注册">

<input type="reset" value="重置">

</td> <td></td>

</tr>

</table>

</form>

</body>

</html>

**8-3-2.php文件代码：**

<?php

sleep(3); //为了测试返回速度慢，单位： 秒

if($\_REQUEST["user"]=="isaac")

echo "Sorry, "**.**$\_REQUEST ["user"] **.** " already exists.";

else

echo $\_REQUEST ["user"]." is ok.";

?>

3. JQuery制作自动提示的文本框。（选做）

**8-4-2.html文件代码：**

<html>

<head>

<meta http-equiv="Content-Type" content="text/html;charset=UTF-8">

<title>jQuery实现自动提示的文本框</title>

<style>

<!--

body{

font-family:Arial, Helvetica, sans-serif;

font-size:12px; padding:0px; margin:5px;

}

form{padding:0px; margin:0px;}

input{

/\* 用户输入框的样式 \*/

font-family:Arial, Helvetica, sans-serif;

font-size:12px; border:1px solid #000000;

width:200px; padding:1px; margin:0px;

}

#popup{

/\* 提示框div块的样式 \*/

position:absolute; width:202px;

color:#004a7e; font-size:12px;

font-family:Arial, Helvetica, sans-serif;

left:41px; top:25px;

}

#popup.show{

/\* 显示提示框的边框 \*/

border:1px solid #004a7e;

}

/\* 提示框的样式风格 \*/

ul{

list-style:none;

margin:0px; padding:0px;

color:#004a7e;

}

li.mouseOver{

background-color:#004a7e;

color:#FFFFFF;

}

-->

</style>

<script language="javascript" src=" jquery-1.11.2.min.js "></script>

<script language="javascript">

var oInputField; //考虑到很多函数中都要使用

var oPopDiv; //因此采用全局变量的形式

var oColorsUl;

function initVars(){

//初始化变量

oInputField = $("#colors");

oPopDiv = $("#popup");

oColorsUl = $("#colors\_ul");

}

function clearColors(){

//清除提示内容

oColorsUl.empty();

oPopDiv.removeClass("show");

}

function setColors(the\_colors){

//显示提示框，传入的参数即为匹配出来的结果组成的数组

clearColors(); //每输入一个字母就先清除原先的提示，再继续

oPopDiv.addClass("show");

for(var i=0;i<the\_colors.length;i++)

//将匹配的提示结果逐一显示给用户

oColorsUl.append($("<li>"+the\_colors[i]+"</li>"));

oColorsUl.find("li").click(function(){

oInputField.val($(this).text());

clearColors();

}).hover(

function(){$(this).addClass("mouseOver");},

function(){$(this).removeClass("mouseOver");}

);

}

function findColors(){

initVars(); //初始化变量

if(oInputField.val().length > 0){

//获取异步数据

$.get("8-4-2.php",{sColor:oInputField.val()},

function(data){

var aResult = new Array();

if(data.length > 0){

aResult = data.split(",");

setColors(aResult); //显示服务器结果

}

else

clearColors();

});

}

else

clearColors(); //无输入时清除提示框（例如用户按del键）

}

</script>

</head>

<body>

<form method="post" name="myForm1">

Color: <input type="text" name="colors" id="colors" onkeyup="findColors();" />

</form>

<div id="popup">

<ul id="colors\_ul"></ul>

</div>

</body>

</html>

**8-4-2.php文件代码：**

<?php

$sInput = $\_REQUEST["sColor"];

if(strlen($sInput) == 0)

return;

$sResult = "";

$aColors = array("aliceblue","antiquewith","aquamarine","azure","beige", "bisque","black","blanchedalmond","blue","blueviolet","brass","bronze","brown","burlywood","cadetblue","chartreuse","chocolate","copper","coral","cornfloewrblue","cornsilk","cyan","darkblue","darkcyan","darkgoldenrod","darkgray","darkgreen","darkhaki","darkmagenta","darkolivegreen","darkorchid","darkorenge","darkred","darksalmon","darkseagreen","darkslateblue","darkslategray","darkturquoise","darkviolet","deeppink","deepskyblue","dimgray","dodgerblue","feldspar","firebrick","floralwhite","forestgreen","fuchsia","gainsboro","gold","goldenrod","golenrod","gostwhite","gray","green","greenyellow","honeydew","hotpink","indianred","inen","ivory","khaki","lavender","lavenderblush","lawngreen","lemonchiffon","lightblue","lightcoral","lightcyan","lightgodenrod","lightgodenrodyellow","lightgray","lightgreen","lightpink","lightsalmon","lightseagreen","lightskyblue","lightslateblue","lightslategray","lightsteelblue","lightyellow","lime","limegreen","magenta","magenta","maroom","maroon","mediumaquamarine","mediumblue","mediumorchid","mediumpurpul","mediumseagreen","mediumslateblue","mediumspringgreen","mediumturquoise","mediumvioletred","midnightblue","mintcream","mistyrose","moccasin","navajowhite","navy","navyblue","oldlace","olivedrab","orange","orchid","orengered","palegodenrod","palegreen","paleturquoise","palevioletred","papayawhip","peachpuff","peru","pink","plum","powderblue","purple","quartz","red","rosybrown","royalblue","saddlebrown","salmon","sandybrown","scarlet","seagreen","seashell","sienna","silver","skyblue","slategray","snow","springgreen","steelblue","tan","thistle","tomato","turquoise","violet","violetred","wheat","whitesmoke","yellow","yellowgreen");

for($i=0;$i<count($aColors);$i++){

if(strstr($aColors[$i],$sInput) != "")

$sResult .= $aColors[$i] . ",";

}

if(strlen($sResult)> 0) //如果有匹配项

$sResult = substr($sResult,0,-1); //去掉最后的“,”号

echo $sResult;

?>