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**IN THIS ASSIGNMENT, I CHOSE TO DEMO THE RETRIEVAL AND
INSERTION OF DATABASE VALUES THROUGH MY PREVIOUSLY
USED LEAGUE OF LEGENDS CHAMPIONS DATABASE.**

I CREATED A SIMPLE HTML PAGE THAT ALLOWS FOR THIS:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Champions Database Page</title>
    <link type="text/css" rel="stylesheet" href="ajaxchampionsstyle.css"/>
    <script src="ajaxchampionsscript.js"></script>
    <script src="jquery.js"></script>
  </head>
  <body onload = "onLoad()">
    <div id="left">
      <p>
        Champion Name:<br>
        Primary Lane:<br>
        Primary Role:<br>
        <button type="button" onclick="insertChampion()">Insert</button><br><br>
        <button type="button" onclick="showChampions()">Show Champions</button>
      </p>
    </div>
    <div id="right"><br>
      <input id="ChampionName" type="text" value=""><br>
      <select id="Lane">
        <option value=1>Top</option>
        <option value=2>Jungle</option>
        <option value=3>Middle</option>
        <option value=4>Bottom</option>
      </select><br>
      <select id="Role">
        <option value=1>Assassin</option>
        <option value=2>Fighter</option>
        <option value=3>Mage</option>
        <option value=4>Marksman</option>
        <option value=5>Support</option>
        <option value=6>Tank</option>
      </select><br>
    </div>
    <div id = "below">
      <p id="results"></p>
      <p id="champions"></p>
    </div>
  </body>
</html>
```

THE RESULTS WITH ACCOMPANYING CSS APPEARS AS SUCH:

Champion Name:

Primary Lane: Top ▾

Primary Role: Assassin ▾

USING THE AJAX, PHP, AND JQUERY WE WERE TAUGHT IN CLASS AND THROUGH THE VIDEOS, I CREATED THIS JAVASCRIPT FILE TO ACCOMPANY THE PAGE:

```
var champions;

function onLoad()
{
    getChampions(false);
}

function insertChampion()
{
    var Champion, LaneID, RoleID;
    Champion = JSON.stringify($("#ChampionName").val());
    LaneID = $("#Lane option:selected").val();
    RoleID = $("#Role option:selected").val();
    ajax = ajaxInsertChampion("insertChampion", Champion, LaneID, RoleID);
    ajax.done(insertChampionCallback);
    ajax.fail(function(){
        alert("Failure");
    });
}

function ajaxInsertChampion(method, Champion, LaneID, RoleID)
{
    return $.ajax({
        url: 'ShadyAPI.php',
        type: 'POST',
        data: {method: method,
            Champion: Champion,
            LaneID: LaneID,
            RoleID: RoleID
        }
    });
}

function insertChampionCallback(response_in)
{
    response = JSON.parse(response_in);
    if (!response["success"])
    {
        $("#results").html("");
        alert("Insert failed on query:" + "\n" + response['querystring']);
    }
    else
    {
        $("#results").html(
            response['querystring'] + '<br>' +
            response['success'] + '<br>');
        getChampions(false);
    }
}
```

```

function showChampions()
{
    var championList = "";
    {
        $.each(champions, function (key, value)
        {
            var itemString = "";
            $.each(value, function (key, item)
            {
                itemString += "<td>&nbsp;" + item + "&nbsp;</td>";
            });
            championList += "<tr>&nbsp;" + itemString + "&nbsp;</tr>";
        });
    }

    $("#champions").html("<table><tr><td>&nbsp;Champion&nbsp;</td><td>&nbsp;Lane&nbsp;</td><td>&nbsp;Role&nbsp;</td>" + championList + "</table>");
}

function getChampions(async)
{
    ajax = ajaxGetChampions("getChampions", async);
    ajax.done(getChampionsCallback);
    ajax.fail(function () {
        alert("Failure");
    });
}

function ajaxGetChampions(method, async)
{
    return $.ajax({
        url: "ShadyAPI.php",
        type: 'POST',
        async: async,
        data: {method: method}
    });
}

function getChampionsCallback(response_in)
{
    var response = JSON.parse(response_in);
    champions = response["champions"];
    if(!response["champions"])
    {
        $("#results").html("getChampions failed");
    }
}

```

THIS JAVASCRIPT REFERENCES A PHP FILE, WHICH I HAVE COPIED AND PASTED BELOW:

```
<?php
echo $_POST["method"]();

function sanitize($str, $quotes = ENT_NOQUOTES)
{
    $str = htmlspecialchars($str, $quotes);
    return $str;
}

function getChampions()
{
    $dbConn = mysqli_connect("23.253.61.96", "ncJonathanR",
                            ";;ncJonathanR;;", "ncJonathanR");

    $query = "SELECT Champion, Lane, Role
              FROM ncJonathanR.Champions, ncJonathanR.Lanes, ncJonathanR.Roles
              WHERE Champions.LaneID = Lanes.LaneID and Champions.RoleID = Roles.RoleID;";
    $result = $dbConn->query($query);
    if($dbConn->connect_error){
        $return->connect_error = "Connection failed: " . $dbConn->connect_error;
        $return->success = false;
        return json_encode($return);
    }

    $champions = array();

    if($result){
        while($row = $result->fetch_array()){
            $allColumns = array();
            for ($i = 0; $i < 3; $i++){
                array_push($allColumns, $row[$i]);
            }
            array_push($champions, $allColumns);
        }
    }

    $return = new stdClass();
    $return->success = true;
    $return->champions = $champions;
    $return->querystring = $query;
    return json_encode($return);
}
```

```

function insertChampion()
{
    if(isset($_POST['Champion'])) {
        $Champion = json_decode(sanitize($_POST['Champion']));
    }

    if(isset($_POST['LaneID'])) {
        $LaneID = json_decode(sanitize($_POST['LaneID']));
    }

    if(isset($_POST['RoleID'])) {
        $RoleID = json_decode(sanitize($_POST['RoleID']));
    }

    $dbConn = mysqli_connect("23.253.61.96", "ncJonathanR",
                            ";;ncJonathanR;;", "ncJonathanR");

    if($dbConn->connect_error) {
        die("Connection failed: " . $dbConn->connect_error);
    }

    $query = "INSERT INTO ncJonathanR.Champions ( Champion, LaneID, RoleID ) " .
        "VALUES ( '" . $Champion . "', " . $LaneID . ", " . $RoleID .
        " );";

    $result = $dbConn->query($query);
    $return = new stdClass();
    $return->querystring = (string) $query;
    if ($result)
    {
        $return->success = true;
    }
    else
    {
        $return->success = false;
    }
    return json_encode($return);
}

```

THAT'S ENOUGH CODE. LET'S SEE AN EXAMPLE OF THE PAGE IN ACTION.

WHEN THE PAGE LOADS, IT GETS THE CHAMPIONS FROM THE DATABASE, WHICH CAN BE VIEWED BY CLICKING THE “SHOW CHAMPIONS” BUTTON:

Champion Name:

Primary Lane:

Primary Role:

Champion	Lane	Role
Aatrox	Top	Fighter
Akali	Top	Assassin
Cho'Gath	Top	Tank
Darius	Top	Fighter
Dr. Mundo	Top	Fighter
Fiora	Top	Fighter
Gangplank	Top	Fighter
Garen	Top	Fighter
Gnar	Top	Fighter

NOTICE THAT THE CHAMPIONS ARE PUT INTO A TABLE FORMAT WITH COLUMN TITLES FOR READABILITY.

IF YOU CAN'T TELL, CHAMPIONS CAN ALSO BE INSERTED INTO THE TABLE USING THE THREE PARAMETERS AT THE TOP OF THE PAGE. SIMPLY TYPE A CHAMPION NAME, SELECT THE CHAMP'S LANE AND ROLE, AND PRESS THE "INSERT" BUTTON:

Champion Name:

Primary Lane:

Primary Role:

```
INSERT INTO ncJonathanR.Champions ( Champion, LaneID, RoleID ) VALUES ( 'Dave Retterer', 3, 3 );
true
```

Champion	Lane	Role
Aatrox	Top	Fighter

THIS NEW DATA CAN BE SEEN IN THE DATABASE NOW:

ChampionID	Champion	LaneID	RoleID
116	Vi	2	2
117	Viktor	3	3
118	Vladimir	1	3
119	Volibear	2	2
120	Warwick	2	2
121	Wukong	1	2
122	Xerath	3	3
123	Xin Zhao	2	2
124	Yasuo	3	1
125	Yorick	1	2
126	Zac	2	6
127	Zed	3	1
128	Ziggs	3	3
129	Zilean	4	5
130	Zyra	4	5
136	Dave Retterer	3	3
NULL	NULL	NULL	NULL

CLICKING THE “SHOW CHAMPIONS” BUTTON WILL ALSO UPDATE THE TABLE TO DISPLAY THE CSS WIZARD ON THE PAGE:

Swain	Middle	Mage
Syndra	Middle	Mage
Talon	Middle	Assassin
Twisted Fate	Middle	Mage
Veigar	Middle	Mage
Vel'Koz	Middle	Mage
Viktor	Middle	Mage
Xerath	Middle	Mage
Yasuo	Middle	Assassin
Zed	Middle	Assassin
Ziggs	Middle	Mage
Dave Retterer	Middle	Mage
Alistar	Bottom	Support
Ashe	Bottom	Marksman
Bard	Bottom	Support
Blitzcrank	Bottom	Support

THAT'S ABOUT IT, THEN.

SPECIAL THANKS GO TO DR. RETTERER FOR HIS LECTURES AND
VIDEOS, AND TO ALL OF THE FONTS I'VE USED IN THESE
ASSIGNMENTS TO DATE:

Times New Roman

Arial Narrow

Courier New

Comic Sans MS

Calibri

☼☼■☞☹☼☼☼☼☼ (Wingdings)

Papyrus

Jokerman

ALGERIAN