Department of Computer Science and Engineering

S.G.Shivanirudh , 185001146, Semester VI

14 April 2021

UCS1601 - Internet Programming

Assignment 6: Autocomplete Feature using AJAX

Objective:

Develop an AJAX program that implements the Autocomplete feature for filling the country names as given.

Code:

HTML:

```
<!DOCTYPE html>
<html>
<head>
    <title>Country autocomplete</title>
    <meta charset="utf-8">
```

```
    <link rel="stylesheet" href="styles_index.css">
</head>

<body>
    <h1>Country list</h1>
    <hr><br>
    <table>
        <form id="countryform">
            <tr>
                <td><label for="country">Country: </label></td>
                <td><select name="country" id="country" required>

                </select></td>
            </tr>
        </form>
    </table>
    <script>
        var input = document.getElementById("country");
        var msg = "";
        var xhttp = new XMLHttpRequest();

        function removeOptions(){
            for(var i = input.options.length-1; i >= 0 ;i--){
                input.remove(i);
            }
        }
        document.addEventListener("keydown", (event) => {
            if(event.keyCode == 8 || event.keyCode == 46){
                msg = msg.slice(0, -1);
            }
            else{
                msg += event.key;
            }
            var url = "Country?val="+msg;
            xhttp.onreadystatechange= function() {
                if(this.readyState == 4 && this.status == 200) {

                    var val = xhttp.responseText;
                    var countries = val.split("/");
                    for(var i = 0; i<countries.length;i++){
                        if(i==0){
                            removeOptions();
```

```
                        }
                        var opt = document.createElement("option");
                        opt.value = countries[i];
                        opt.text = countries[i];
                        input.add(opt);
                        input.placeholder = msg;
                    }
                }
            };
            xhttp.open("GET", url, true);
            xhttp.send();
        });

        window.addEventListener('load', (event) => {
            document.getElementById("countryform").reset();
        });
    </script>
</body>
```

CSS:

```
body{
    font-size: 16pt;
    font-family: -apple-system, BlinkMacSystemFont, 'Segoe UI', 'Roboto', 'Oxygen',
    'Ubuntu', 'Cantarell', 'Fira Sans', 'Droid Sans', 'Helvetica Neue',
    sans-serif;
    background: #1D4350;  /* fallback for old browsers */
    background: -webkit-linear-gradient(to right, #A43931, #1D4350);  /* Chrome 10-25, Safari 5.1-6 */
    background: linear-gradient(to right, #A43931, #1D4350); /* W3C, IE 10+/ Edge, Firefox 16+, Chrome 26+, Opera 12+, Safari 7+ */

    color: white;
    height: 100vh;
    text-align: center;
}

h1{
```

```
    font-size: 50pt;
    text-align: center;
    color: white;
}

table{
    display: block;
    margin-left: auto;
    margin-right: auto;
    width: 25%;
    text-align: center;
    border-spacing: 25px;
}
```

Country Servlet:

Java:

```
import java.io.*;
import java.util.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class Country extends HttpServlet{
    public void doGet(HttpServletRequest request,
    HttpServletResponse response) throws ServletException,
    IOException {

        String JDBC_DRIVER = "com.mysql.cj.jdbc.Driver";
        String DB_URL = "jdbc:mysql://localhost:3306/mysql?
    autoReconnect=true&useSSL=false";

        String USER = "shiva";
        String PASS = "$$Shiva123";

        //response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        var val = request.getParameter("val");
        try {
            Class.forName(JDBC_DRIVER);
```

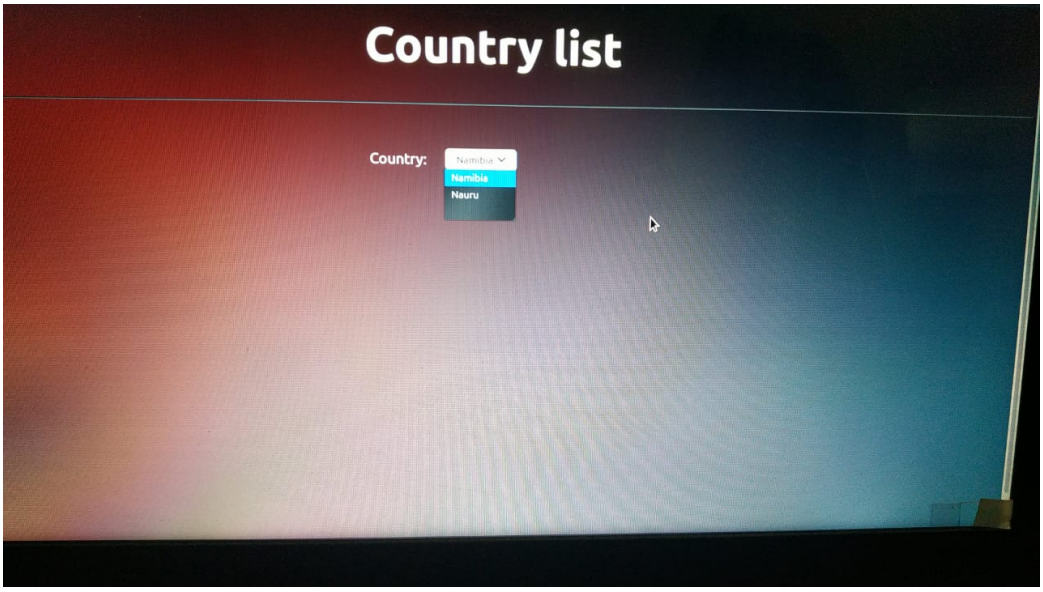
```
            Connection conn = DriverManager.getConnection(
    DB_URL, USER, PASS);
            Statement stmt = conn.createStatement();
            String sql = "SELECT * FROM countries where LOWER
    (country) LIKE '"+val+"%'";
            Statement pst = conn.createStatement();

            ResultSet rs = pst.executeQuery(sql);
            while (rs.next()) {

                String country = rs.getString("country");

                out.print(country+"/");

            }

            pst.close();
            conn.close();


        } catch (SQLException sql) {
            sql.printStackTrace();
            out.println(sql);
        } catch (Exception e) {
            e.printStackTrace();
            out.println(e);
        }
    }
}
```

XML:

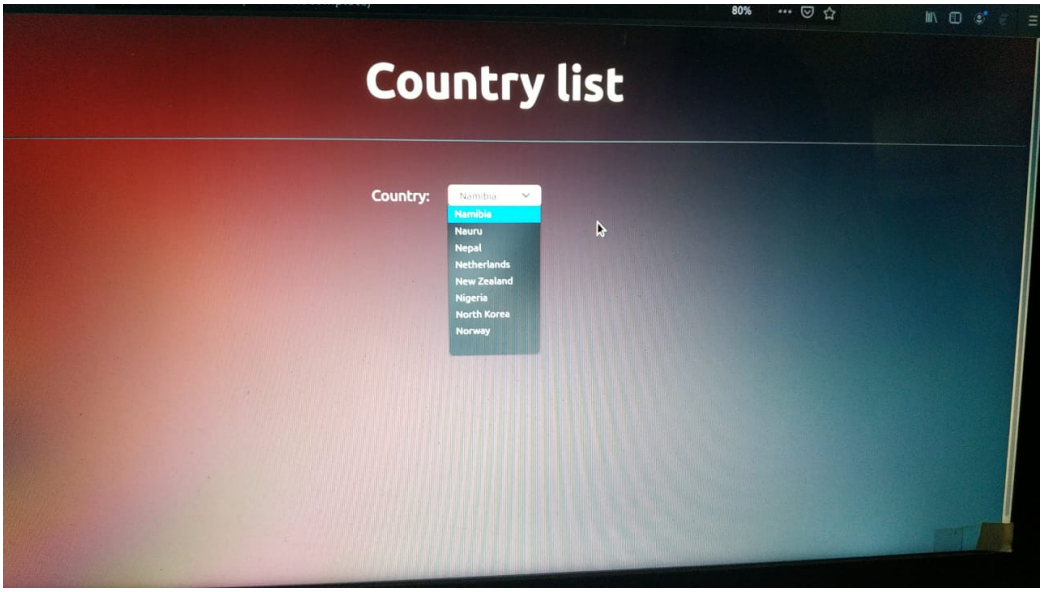
```
<web-app>
    <servlet>
        <servlet-name>Country</servlet-name>
        <servlet-class>Country</servlet-class>
</servlet>
<servlet-mapping>
    <servlet-name>Country</servlet-name>
    <url-pattern>/Country</url-pattern>
</servlet-mapping>
</web-app>
```

Output:

Initial:



Input ”n”:


80%
Country list
Country:
Namibia
Namibia
Nauru
Nepal
Netherlands
New Zealand
Nigeria
North Korea
Norway

Input ”na”: