Phase – 2 Practice Project: Assisted Practice

11. Demonstrate a project to set up JDBC environment.

• Code

index.html

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>JDBC Setup</title>
</head>
<body>
<a href="init">Initialize JDBC</a><br>
</body>
</html>
```

DBConnection.java

```java
package com.ecommerce;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
public class DBConnection {
        private Connection connection;
        public DBConnection(String dbURL, String user, String pwd)
throws ClassNotFoundException, SQLException{
                Class.forName("com.mysql.cj.jdbc.Driver");
                        this.connection =
DriverManager.getConnection(dbURL, user,
pwd);
        }
        public Connection getConnection(){
            return this.connection;
        }
        public void closeConnection() throws SQLException {
            if (this.connection != null)
                    this.connection.close();
        }
}
```

config.properties

```
url=jdbc:mysql://localhost:3306/ecommerce
userid=root
password=master
```

DemoJDBC.java

```java
package com.ecommerce;
import java.io.IOException;
import java.io.InputStream;
import java.io.PrintWriter;
import java.math.BigDecimal;
import java.sql.CallableStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Properties;
import javax.servlet.ServletException;
```

```java
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import com.ecommerce.DBConnection;
/**
* Servlet implementation class DemoJDBC
*/
@WebServlet("/DemoJDBC")
public class DemoJDBC extends HttpServlet {
private static final long serialVersionUID = 1L;
/**
* @see HttpServlet#HttpServlet()
*/
public DemoJDBC() {
super();
// TODO Auto-generated constructor stub
}
/**
* @see HttpServlet#doGet(HttpServletRequest request,
HttpServletResponse response)
*/
protected void doGet(HttpServletRequest request,
HttpServletResponse response) throws ServletException, IOException {
// TODO Auto-generated method stub
try {
PrintWriter out = response.getWriter();
out.println("<html><body>");
                    InputStream in =
getServletContext().getResourceAsStream("/WEB-INF/config.properties");
                    Properties props = new Properties();
                    props.load(in);

                    DBConnection conn = new
DBConnection(props.getProperty("url"), props.getProperty("userid"),
props.getProperty("password"));
                    out.println("DB Connection initialized.<br>");

                    conn.closeConnection();
                    out.println("DB Connection closed.<br>");


                    out.println("</body></html>");
                    conn.closeConnection();

                } catch (ClassNotFoundException e) {
                        e.printStackTrace();
                } catch (SQLException e) {
                        e.printStackTrace();
                }
        }

        /**
         * @see HttpServlet#doPost(HttpServletRequest request,
HttpServletResponse response)
         */
        protected void doPost(HttpServletRequest request,
HttpServletResponse response) throws ServletException, IOException {
                // TODO Auto-generated method stub
                doGet(request, response);
        }
```

```
}
```

web.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://java.sun.com/xml/ns/javaee"
xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd" id="WebApp_ID"
version="2.5">
  <display-name>Assisted-Practice-Project 2.11 (JDBCSetup)</display-
name>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>index.htm</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.jsp</welcome-file>
    <welcome-file>default.htm</welcome-file>
  </welcome-file-list>
  <servlet>
    <description></description>
<display-name>DemoJDBC</display-name>
<servlet-name>DemoJDBC</servlet-name>
<servlet-class>com.ecommerce.DemoJDBC</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>DemoJDBC</servlet-name>
<url-pattern>/init</url-pattern>
</servlet-mapping>
</web-app>
```

Output: