2.Demonstrate a project to set up JDBC environment.(Unassisted Practice)

Index.html:

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>JDBC environment</title>
</head>
<body>
<a href="init">Initialize JDBC</a><br>
<a href="JDBCstatement">Execute Query Demo
(retrieve eproduct table rows)
</a><br>

</body>
</html>
```

JDBCinit:

```
package Abc;

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
```

```
@WebServlet("/init")
public class JDBCinit extends HttpServlet {
    private static final long serialVersionUID = 1L;

    protected void doGet(HttpServletRequest request,
HttpServletResponse response)
            throws ServletException, IOException {

        try {
            // sTEP 1 LOAD THE JDBC DRIVER
            Class.forName("com.mysql.jdbc.Driver");

            // STEP 2 GET THE CONNECTION TO THE DATABSE
            Connection connection =
DriverManager.getConnection("jdbc:mysql://localhost:3306/
ecommerce", "root",
                    "root");

            //
            PrintWriter out = response.getWriter();
            out.println("SUCCESS!!");

        } catch (ClassNotFoundException | SQLException e) {

        }

    }

}
```

JDBcstatement:

```
package Abc;

import java.io.*;
import java.sql.*;
import java.util.*;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.*;

@WebServlet("/JDBCstatement")
public class JDBcstatement extends HttpServlet {
    private static final long serialVersionUID = 1L;

    DBUtil dbutil = null;

    // @Override
    public void init() throws ServletException {
        super.init();

        InputStream in = getServletContext().getResourceAsStream("/
WEB-INF/config.properties");
        Properties props = new Properties();
        try {
            props.load(in);

            dbutil = new DBUtil(props.getProperty("url"),
props.getProperty("userid"), props.getProperty("password"));

        } catch (IOException e) {
            e.printStackTrace();
        }
    }

    protected void doGet(HttpServletRequest request,
HttpServletResponse response)
```

```
        throws ServletException, IOException {
    PrintWriter out = response.getWriter();
    out.println("<html><body>");

    // Get a DB connection
    Connection connection = dbutil.getConnection();

    // STEP 3 Create the Statement object.
    try {
        // STEP 3 Create the Statement object.
        Statement stmt =
connection.createStatement(ResultSet.TYPE_SCROLL_INSENSITIV
E, ResultSet.CONCUR_READ_ONLY);

        ResultSet rs = stmt.executeQuery("SELECT * FROM fruits");

        out.println("<h3> Query Results:</h3>");
        while (rs.next()) {
            int No = rs.getInt("No");
            String name = rs.getString("name");
            float price = rs.getFloat("price");
            String Quality = rs.getString("Quality");

            out.println(No + ", " + name + ", " + price + ", " + Quality +
"<br>");
        }

        dbutil.closeConnection();

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

  }
}
```

Database connection

```
package Abc;

import java.sql.*;

public class DBUtil {
    Connection connection = null;

    public DBUtil(String dbURL, String user, String pwd) {
        try {
            // STEP 1 LOAD THE JDBC DRIVER
            Class.forName("com.mysql.jdbc.Driver");

            // STEP 2 GET THE CONNECTION TO THE DATABSE
            connection = DriverManager.getConnection(dbURL, user,
pwd);

        } catch (ClassNotFoundException | SQLException e) {
            System.out.println(e);
        }
    }

    public Connection getConnection() {
        return this.connection;
    }

    public void closeConnection() throws SQLException {
        if (this.connection != null)
            this.connection.close();
    }

}
```