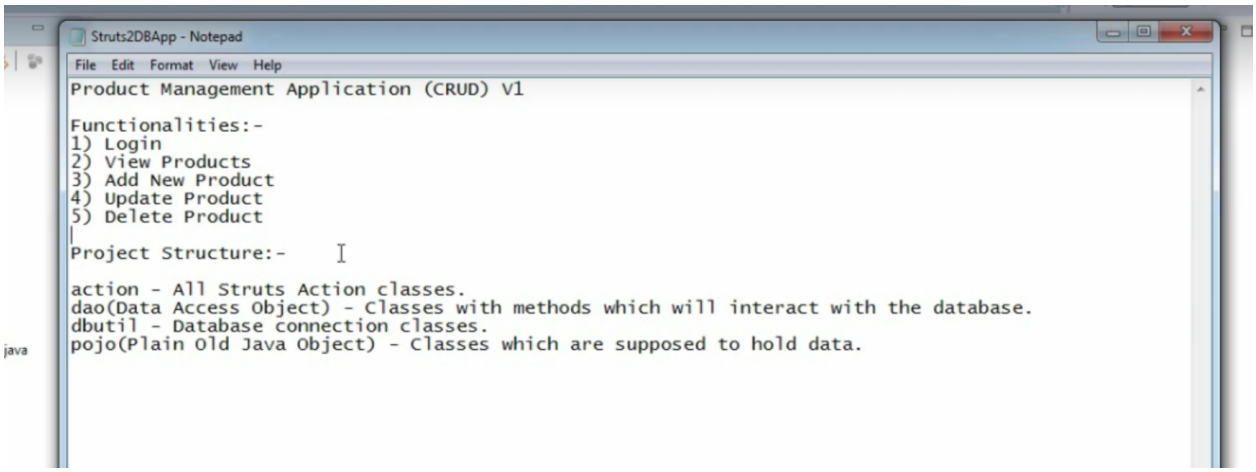
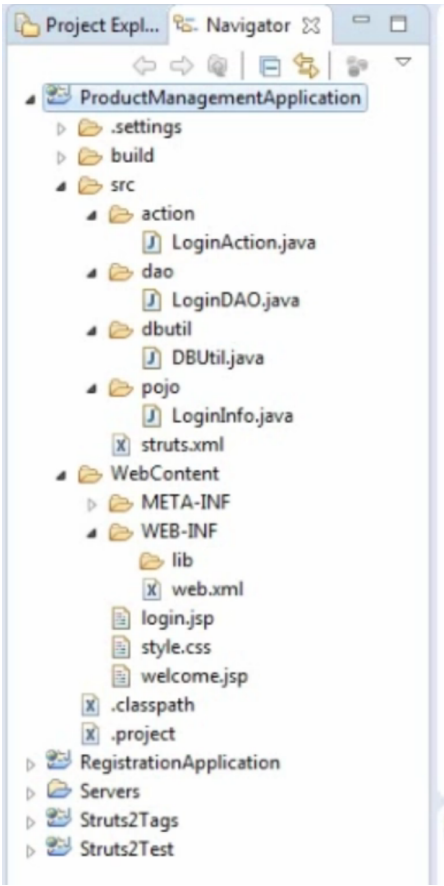
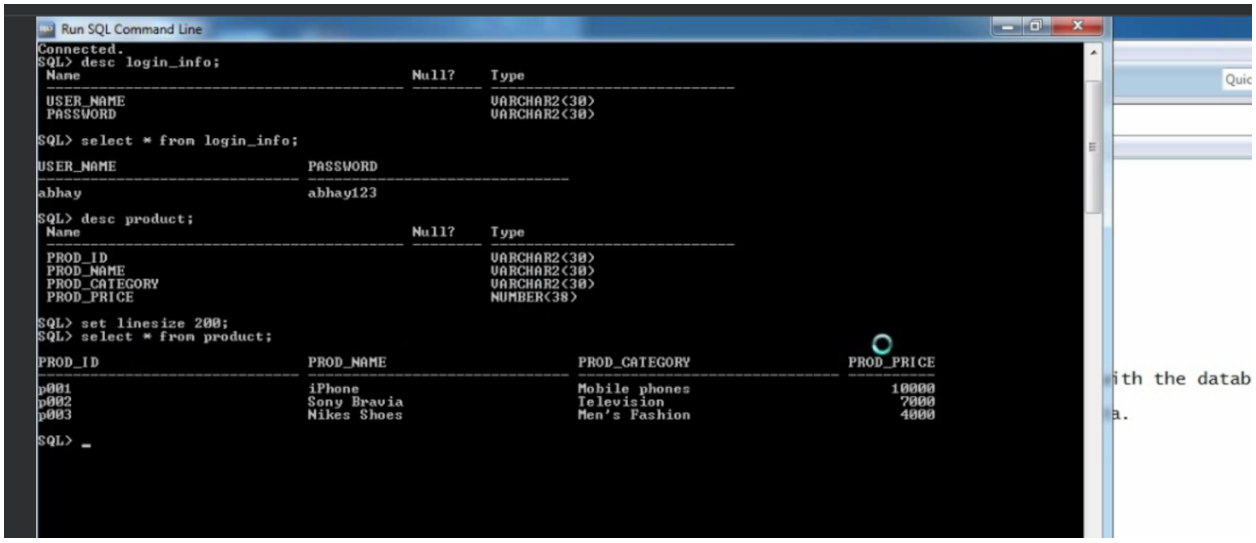
Struts 2 Database application V1 / Product Management Application



We also have struts.xml web.xml and jsps and css as shown below.



Tables and data we require for this.



Db util class contains get Connections and close connections methods

Login Pojo class - setters and getters and toString override

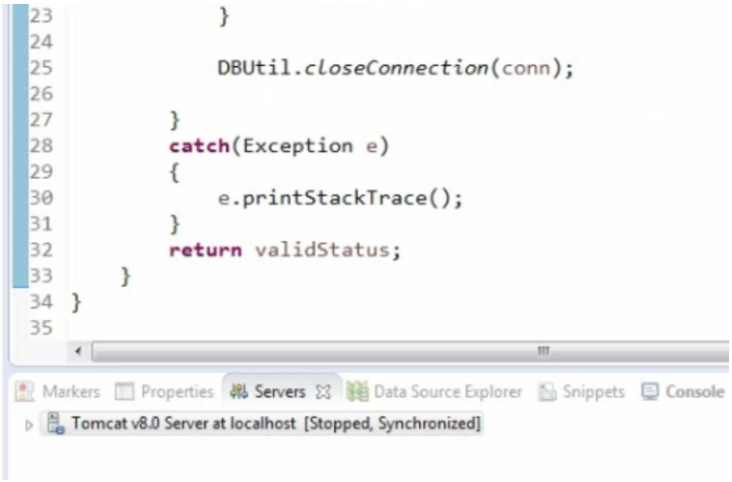
DBUtil.java | LoginInfo.java

```java
package pojo;

public class LoginInfo {

    String userName;
    String password;

    public LoginInfo() {
        // TODO Auto-generated constructor stub
    }

    public LoginInfo(String userName, String password) {
        super();
        this.userName = userName;
        this.password = password;
    }

    public String getUserName() {
        return userName;
    }

    public void setUserName(String userName) {
        this.userName = userName;
```

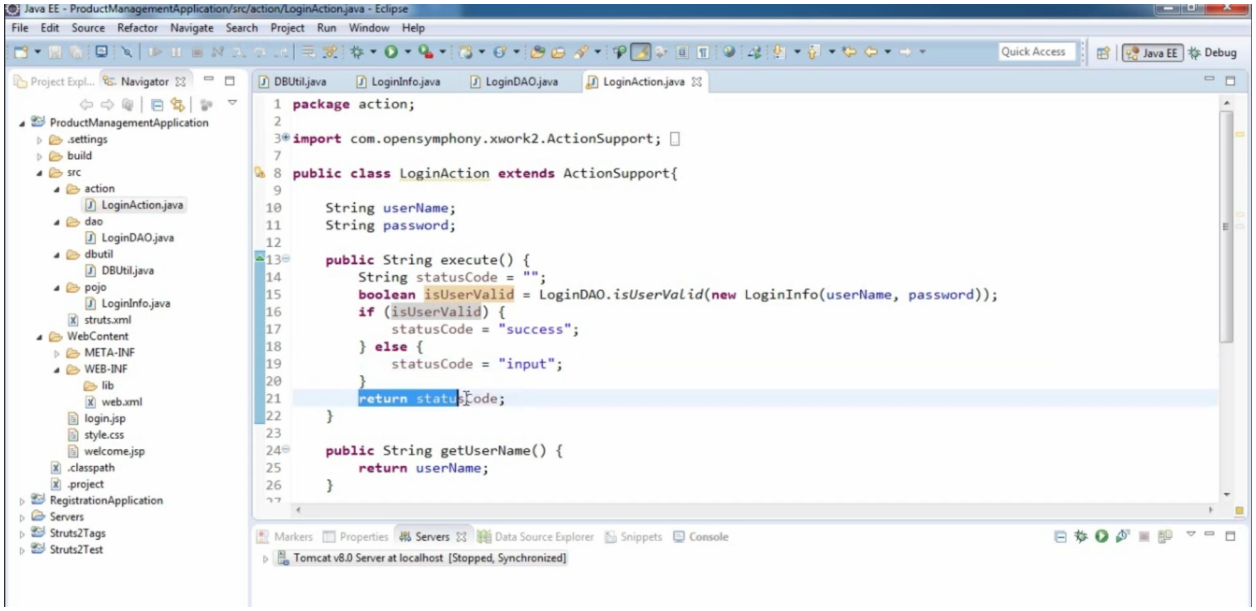
Login DAO class

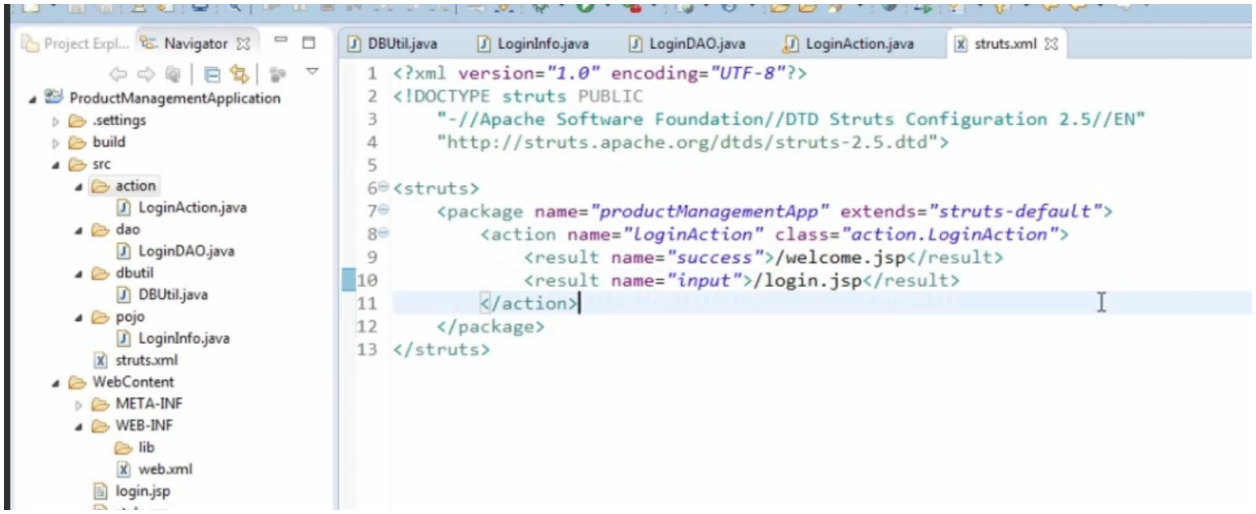
DBUtil.java | LoginInfo.java | LoginDAO.java

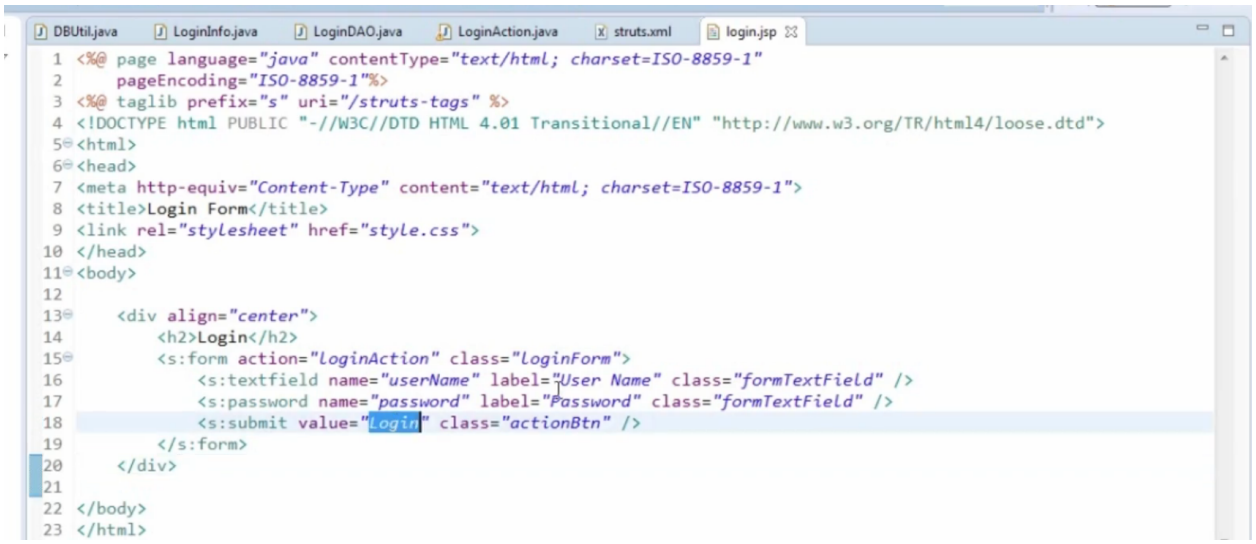
```java
package dao;

import java.sql.Connection;

public class LoginDAO {

    public static boolean isUserValid(LoginInfo userDetails)
    {
        boolean validStatus = false;
        try
        {
            Connection conn = DBUtil.getConnection();
            Statement st= conn.createStatement();
            ResultSet rs= st.executeQuery("SELECT * FROM login_info WHERE user_name = '"+userDetails.getUserName(
            while(rs.next())
            {
                validStatus = true;
            }

            DBUtil.closeConnection(conn);

        }
        catch(Exception e)
```



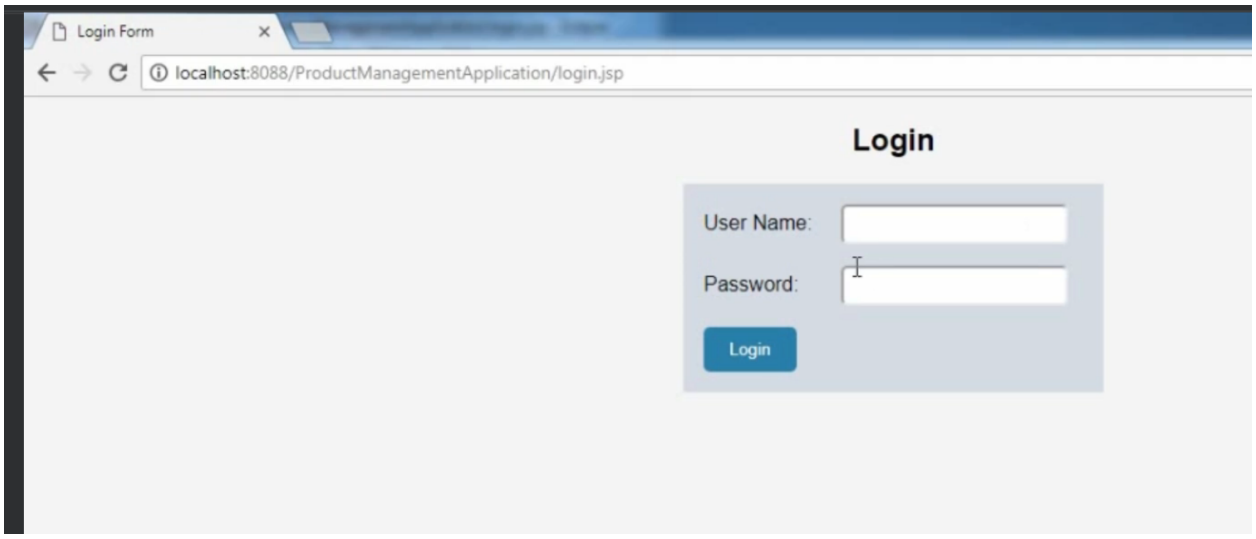
LoginAction class where each action class contain one execute method.



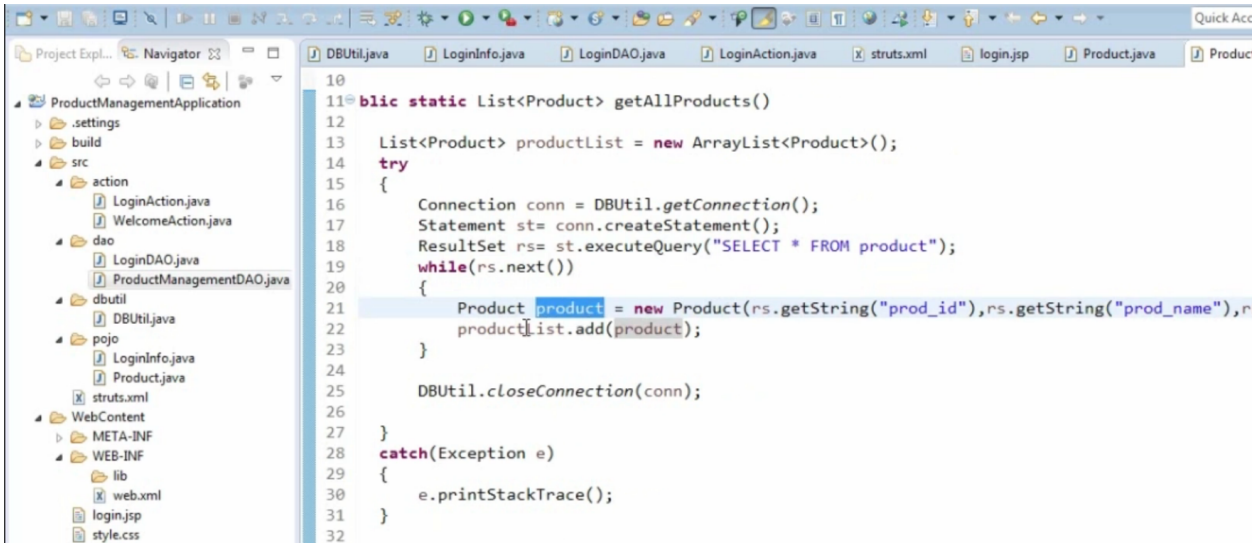

Project Expl... Navigator
ProductManagementApplication
.settings
build
src
action
LoginAction.java
dao
LoginDAO.java
dbutil
DBUtil.java
pojo
LoginInfo.java
struts.xml
WebContent
META-INF
WEB-INF
lib
web.xml
login.jsp
DBUtil.java
LoginInfo.java
LoginDAO.java
LoginAction.java
struts.xml
1 <?xml version="1.0" encoding="UTF-8"?>
2 <!DOCTYPE struts PUBLIC
3 "-//Apache Software Foundation//DTD Struts Configuration 2.5//EN"
4 "http://struts.apache.org/dtds/struts-2.5.dtd">
5
6 <struts>
7 <package name="productManagementApp" extends="struts-default">
8 <action name="loginAction" class="action.LoginAction">
9 <result name="success">/welcome.jsp</result>
10 <result name="input">/login.jsp</result>
11 </action>
12 </package>
13 </struts>


DBUtil.java
LoginInfo.java
LoginDAO.java
LoginAction.java
struts.xml
login.jsp
1 <%@ page language="java" contentType="text/html; charset=ISO-8859-1"
2 pageEncoding="ISO-8859-1"%>
3 <%@ taglib prefix="s" uri="/struts-tags" %>
4 <!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
5 <html>
6 <head>
7 <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
8 <title>Login Form</title>
9 <link rel="stylesheet" href="style.css">
10 </head>
11 <body>
12
13
14 <h2>Login</h2>
15 <s:form action="loginAction" class="loginForm">
16 <s:textfield name="userName" label="User Name" class="formTextField" />
17 <s:password name="password" label="Password" class="formTextField" />
18 <s:submit value="Login" class="actionBtn" />
19 </s:form>
20
21
22 </body>
23 </html>

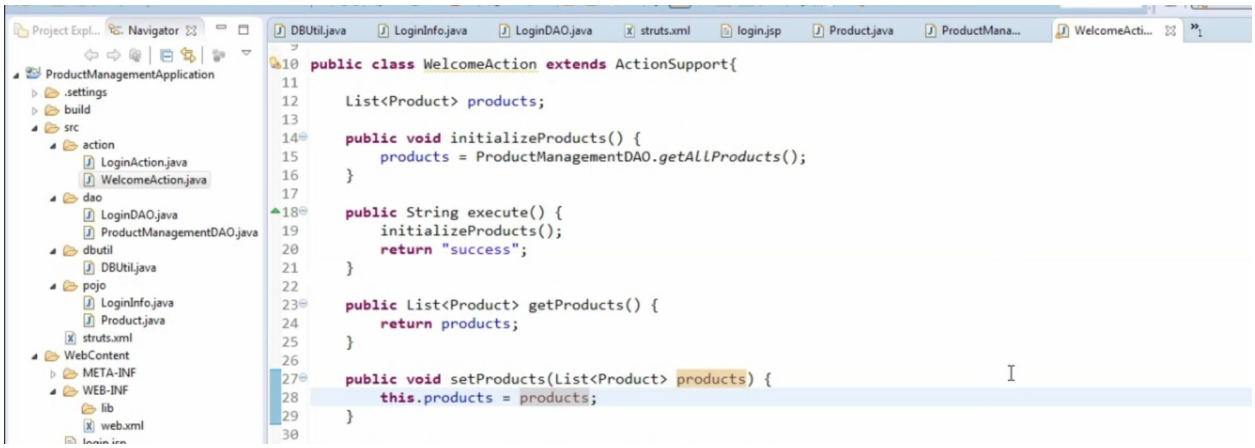
Login.jsp


Login Form
localhost:8088/ProductManagementApplication/login.jsp
Login
User Name:
Password:
Login

Product DAO

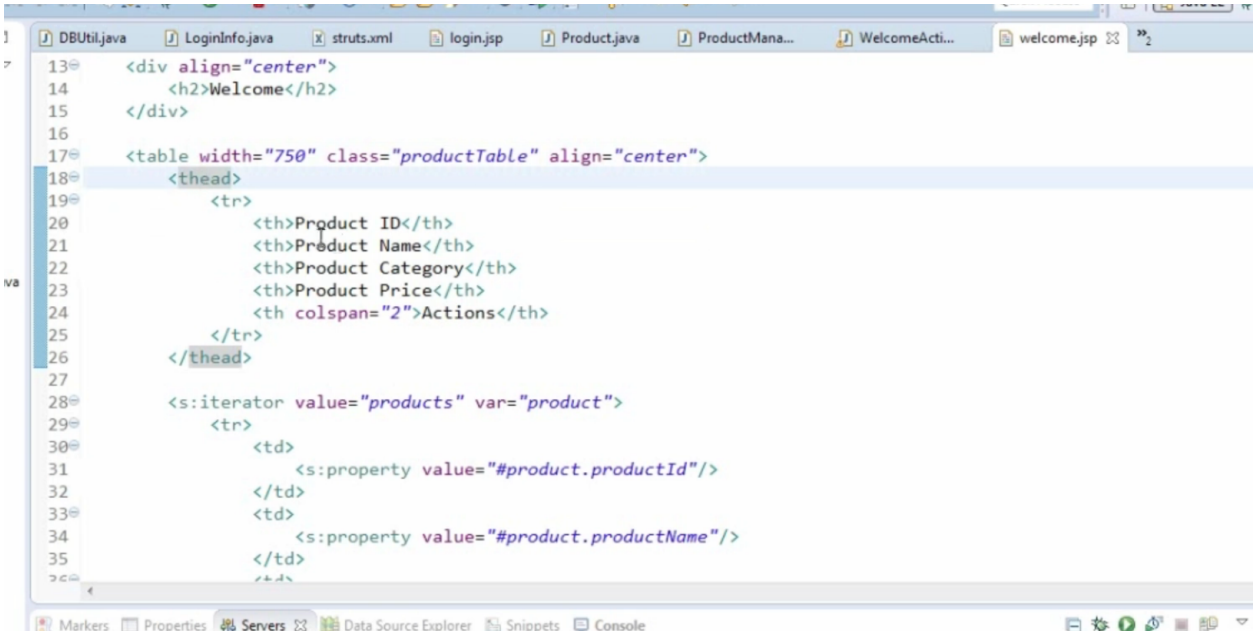


In Welcome action class we want to display all the products



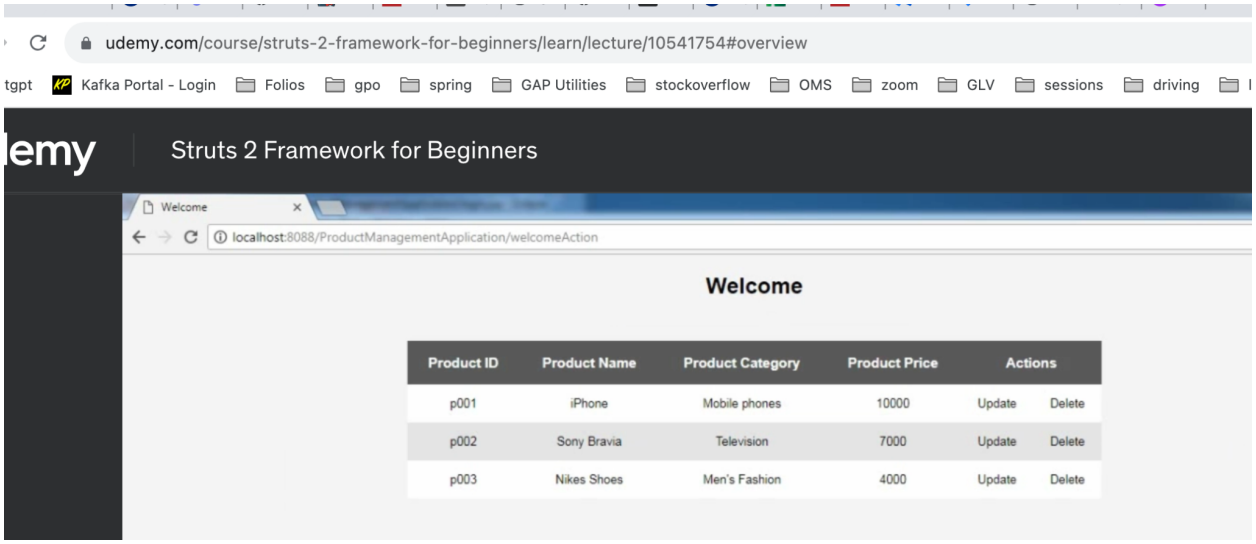
Include Welcome in the struts page.

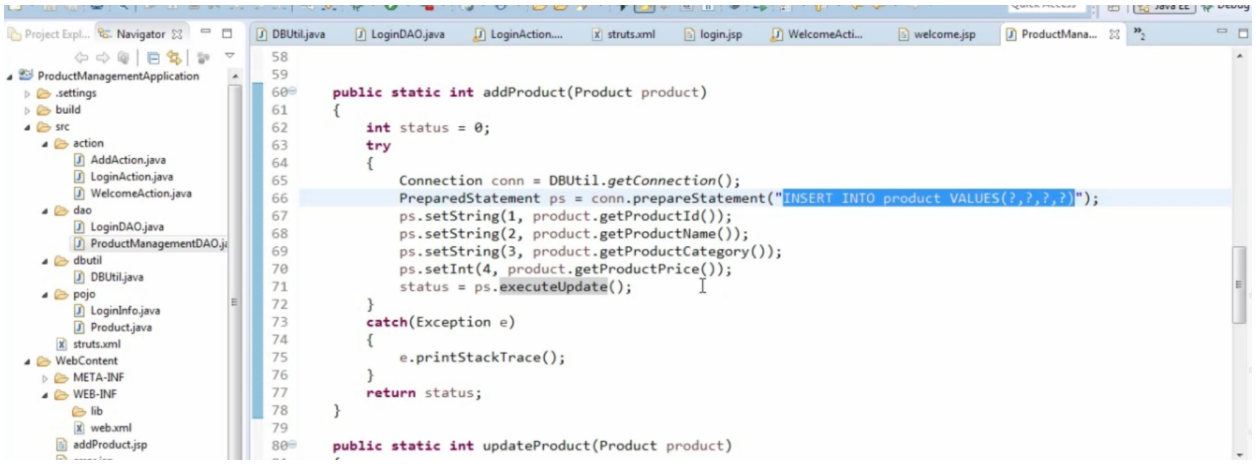
```
4      "http://struts.apache.org/dtds/struts-2.5.dtd">
5
6  <struts>
7      <package name="productManagementApp" extends="struts-default">
8          <action name="loginAction" class="action.LoginAction">
9              <result name="success">/welcome.jsp</result>
10             <result name="input">/login.jsp</result>
11         </action>
12         <action name="welcomeAction" class="action.WelcomeAction">
13             <result name="success">/welcome.jsp</result>
14         </action>
15     </package>
16 </struts>
```



On successful login let it redirect to welcomeAction

```
4      "http://struts.apache.org/dtds/struts-2.5.dtd">
5
6  <struts>
7      <package name="productManagementApp" extends="struts-default">
8          <action name="loginAction" class="action.LoginAction">
9              <result name="success" type="redirect">welcomeAction</result>
10             <result name="input">/login.jsp</result>
11         </action>
12         <action name="welcomeAction" class="action.WelcomeAction">
13             <result name="success">/welcome.jsp</result>
14         </action>
15     </package>
16 </struts>
```


udemy.com/course/struts-2-framework-for-beginners/learn/lecture/10541754#overview
tgpt
Kafka Portal - Login
Folios
gpo
spring
GAP Utilities
stockoverflow
OMS
zoom
GLV
sessions
driving
Struts 2 Framework for Beginners
Welcome
localhost:8088/ProductManagementApplication/welcomeAction
Welcome
Product ID
Product Name
Product Category
Product Price
Actions
p001
iPhone
Mobile phones
10000
Update
Delete
p002
Sony Bravia
Television
7000
Update
Delete
p003
Nikes Shoes
Men's Fashion
4000
Update
Delete


Navigator
ProductManagementApplication
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AddAction.java
LoginAction.java
WelcomeAction.java
dao
LoginDAO.java
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LoginInfo.java
Product.java
struts.xml
WebContent
META-INF
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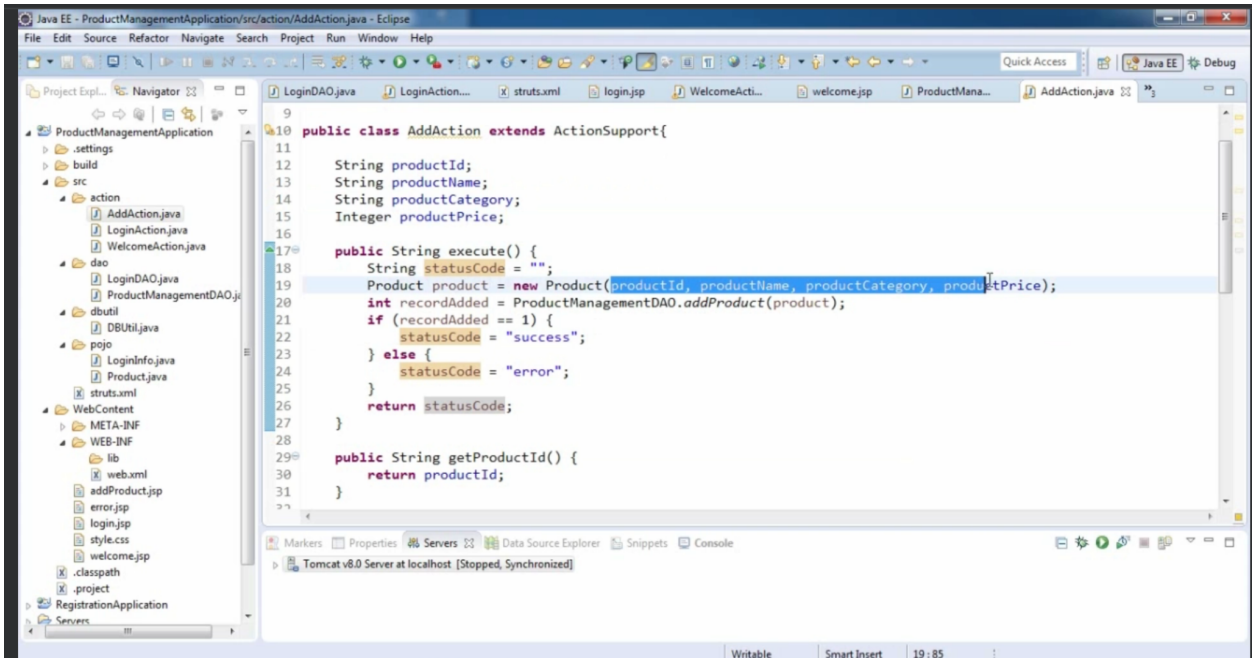
web.xml
addProduct.jsp
DBUtil.java
LoginDAO.java
LoginAction....
struts.xml
login.jsp
WelcomeActi...
welcome.jsp
ProductMana...
58
59
60 public static int addProduct(Product product)
61 {
62 int status = 0;
63 try
64 {
65 Connection conn = DBUtil.getConnection();
66 PreparedStatement ps = conn.prepareStatement("INSERT INTO product VALUES(?,?,?,?)");
67 ps.setString(1, product.getProductId());
68 ps.setString(2, product.getProductName());
69 ps.setString(3, product.getProductCategory());
70 ps.setInt(4, product.getProductPrice());
71 status = ps.executeUpdate();
72 }
73 catch(Exception e)
74 {
75 e.printStackTrace();
76 }
77 return status;
78 }
79
80 public static int updateProduct(Product product)


Java EE - ProductManagementApplication/src/action/AddAction.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
ProductManagementApplication
.settings
build
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AddAction.java
LoginAction.java
WelcomeAction.java
dao
LoginDAO.java
ProductManagementDAO.ja
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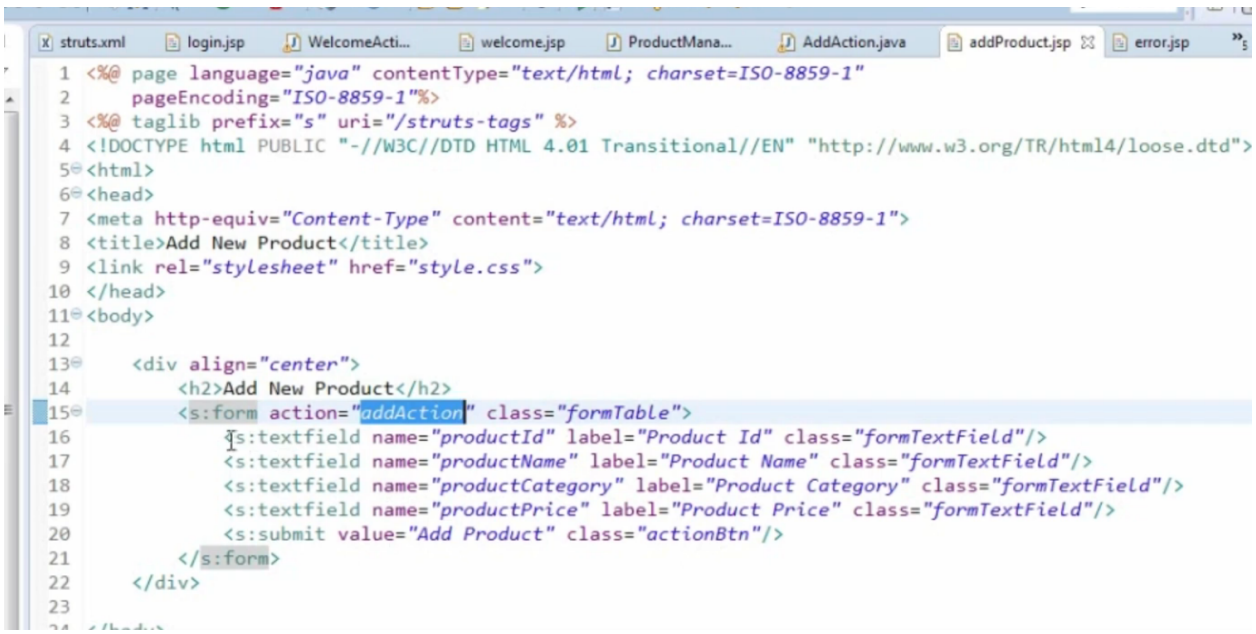
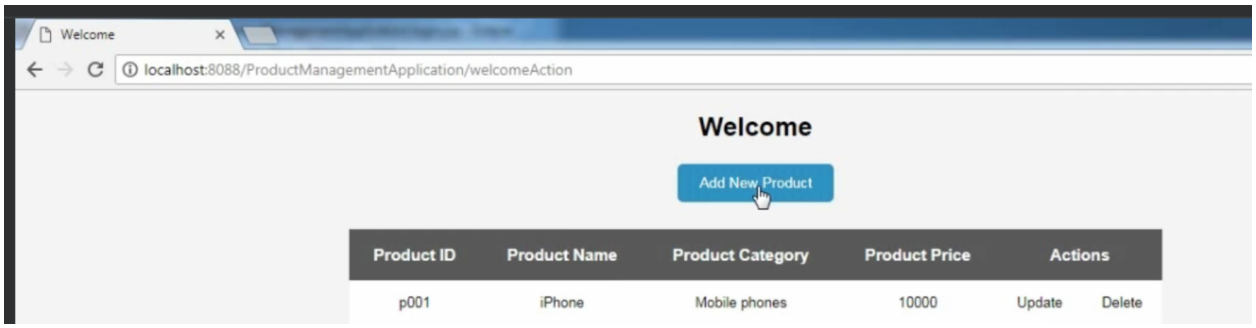
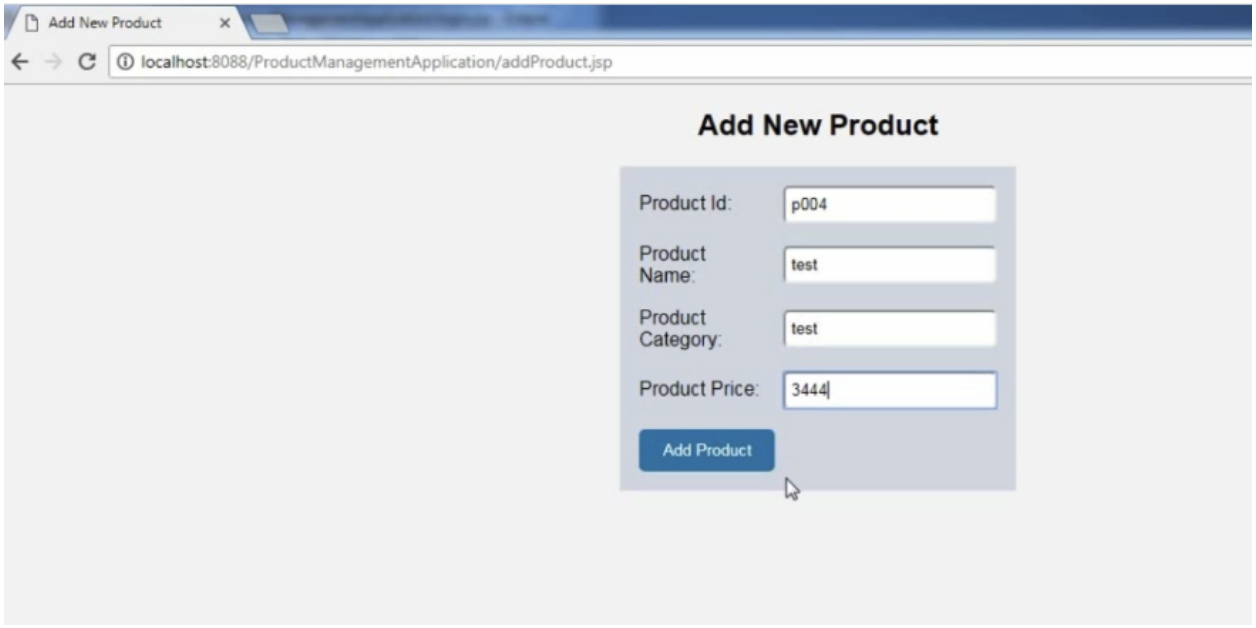
DBUtil.java
pojo
LoginInfo.java
Product.java
struts.xml
WebContent
META-INF
WEB-INF
lib
web.xml
addProduct.jsp
error.jsp
login.jsp
style.css
welcome.jsp
.classpath
.project
RegistrationApplication
Servers
LoginDAO.java
LoginAction....
struts.xml
login.jsp
WelcomeActi...
welcome.jsp
ProductMana...
AddAction.java
public class AddAction extends ActionSupport{
String productId;
String productName;
String productCategory;
Integer productPrice;
public String execute() {
String statusCode = "";
Product product = new Product(productId, productName, productCategory, productPrice);
int recordAdded = ProductManagementDAO.addProduct(product);
if (recordAdded == 1) {
statusCode = "success";
} else {
statusCode = "error";
}
return statusCode;
}
public String getProductId() {
return productId;
}
Markers Properties Servers Data Source Explorer Snippets Console
Tomcat v8.0 Server at localhost [Stopped, Synchronized]
Writable
Smart Insert
19 : 85

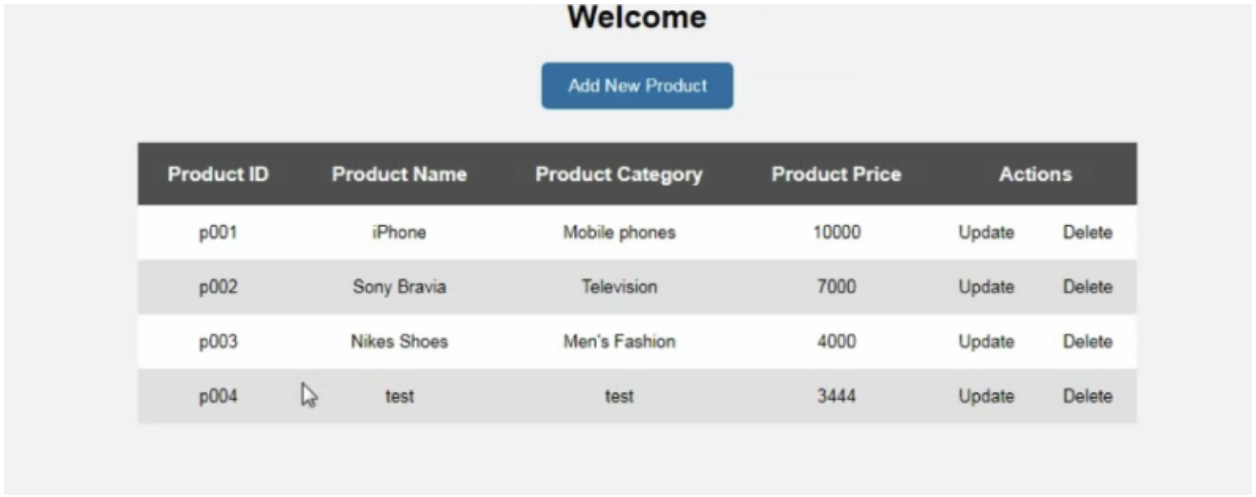

struts.xml
login.jsp
WelcomeActi...
welcome.jsp
ProductMana...
AddAction.java
addProduct.jsp
error.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<%@ taglib prefix="s" uri="/struts-tags" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Add New Product</title>
<link rel="stylesheet" href="style.css">
</head>
<body>

<h2>Add New Product</h2>
<s:form action="addAction" class="formTable">
<s:textfield name="productId" label="Product Id" class="formTextField"/>
<s:textfield name="productName" label="Product Name" class="formTextField"/>
<s:textfield name="productCategory" label="Product Category" class="formTextField"/>
<s:textfield name="productPrice" label="Product Price" class="formTextField"/>
<s:submit value="Add Product" class="actionBtn"/>
</s:form>

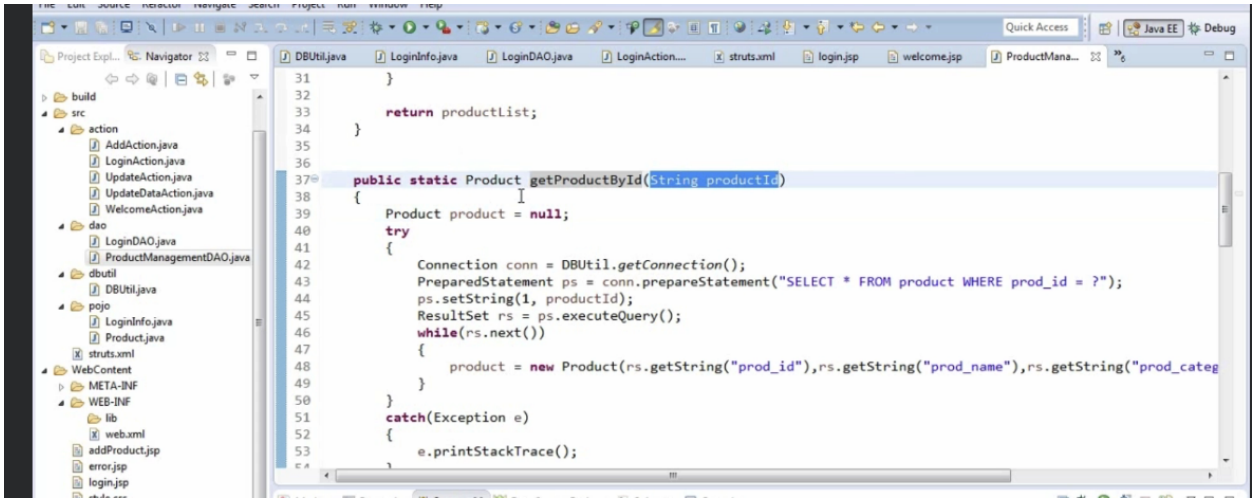

Welcome
localhost:8088/ProductManagementApplication/welcomeAction
Welcome
Add New Product
Product ID
Product Name
Product Category
Product Price
Actions
p001
iPhone
Mobile phones
10000
Update
Delete



New product added

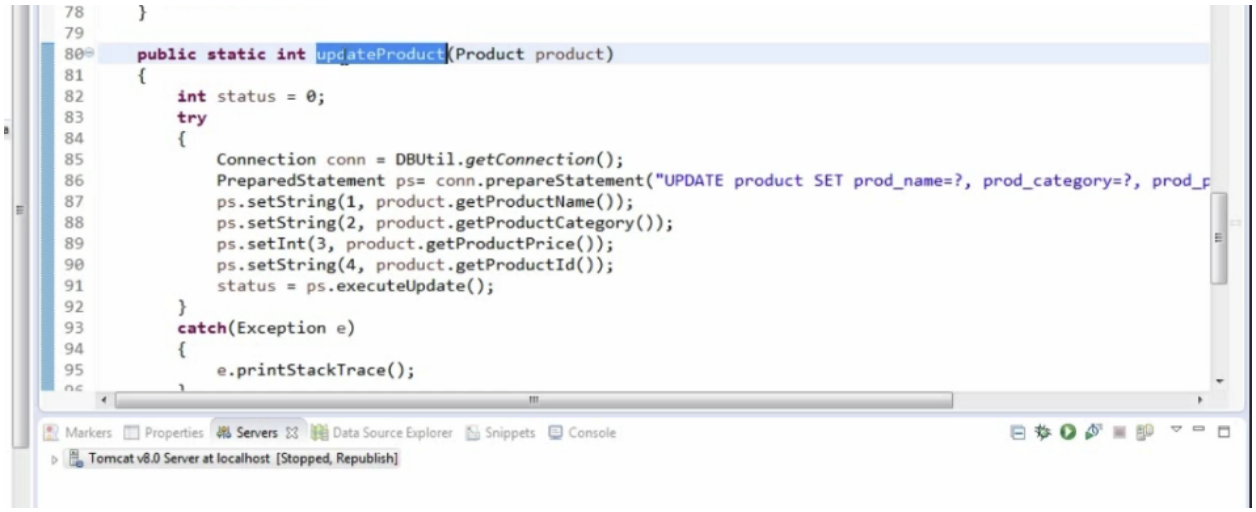


Update product



```
        }

        return productList;
    }

    public static Product getProductById(String productId)
    {
        Product product = null;
        try
        {
            Connection conn = DBUtil.getConnection();
            PreparedStatement ps = conn.prepareStatement("SELECT * FROM product WHERE prod_id = ?");
            ps.setString(1, productId);
            ResultSet rs = ps.executeQuery();
            while(rs.next())
            {
                product = new Product(rs.getString("prod_id"),rs.getString("prod_name"),rs.getString("prod_categ
            }
        }
        catch(Exception e)
        {
            e.printStackTrace();
```

Return product

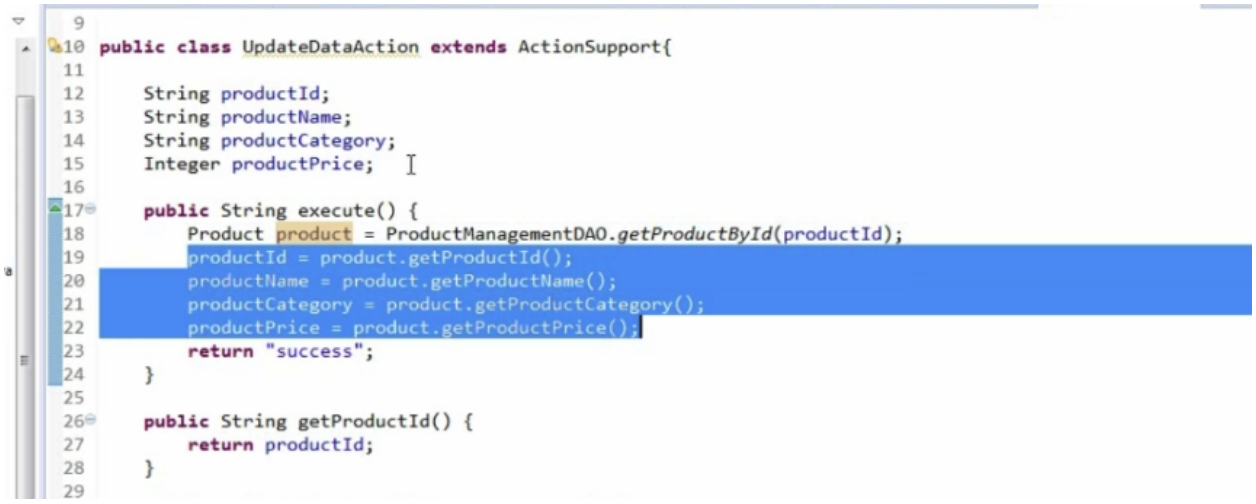


```
    }

    public static int updateProduct(Product product)
    {
        int status = 0;
        try
        {
            Connection conn = DBUtil.getConnection();
            PreparedStatement ps= conn.prepareStatement("UPDATE product SET prod_name=?, prod_category=?, prod_p
            ps.setString(1, product.getProductName());
            ps.setString(2, product.getProductCategory());
            ps.setInt(3, product.getProductPrice());
            ps.setString(4, product.getProductId());
            status = ps.executeUpdate();
        }
        catch(Exception e)
        {
            e.printStackTrace();
```

Markers | Properties | Servers | Data Source Explorer | Snippets | Console

Tomcat v8.0 Server at localhost [Stopped, Republish]

Return status either 1 or 0;



```
public class UpdateDataAction extends ActionSupport{

    String productId;
    String productName;
    String productCategory;
    Integer productPrice;

    public String execute() {
        Product product = ProductManagementDAO.getProductById(productId);
        productId = product.getProductId();
        productName = product.getProductName();
        productCategory = product.getProductCategory();
        productPrice = product.getProductPrice();
        return "success";
    }

    public String getProductId() {
        return productId;
    }
```

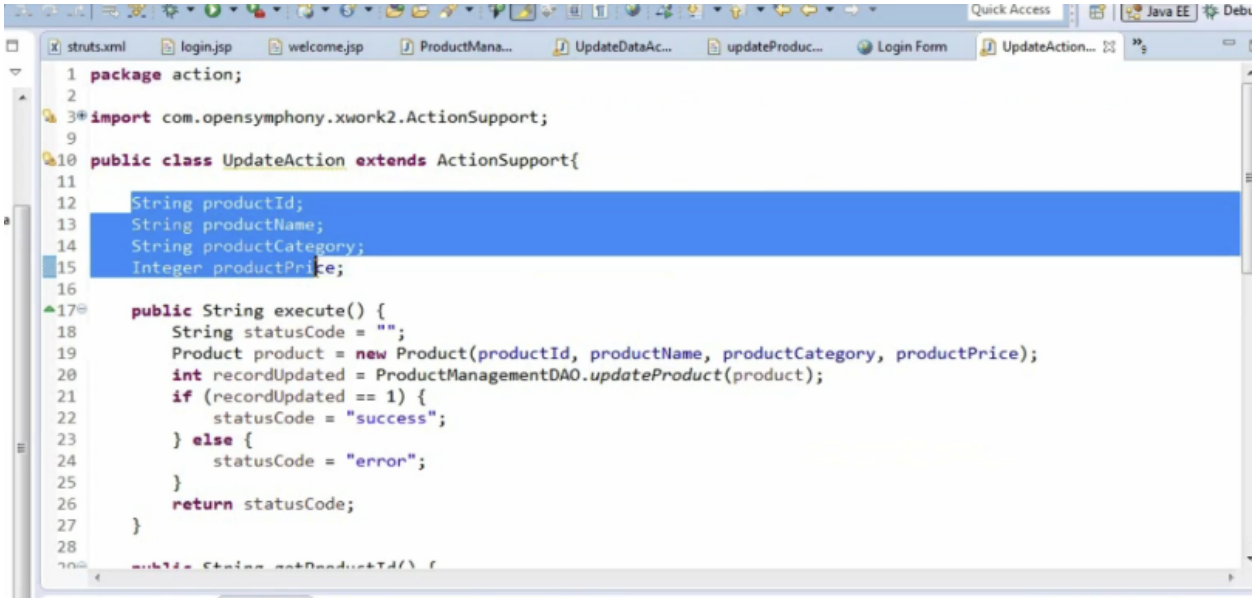
```
<package name="productManagementApp" extends="struts-default">
    <action name="loginAction" class="action.LoginAction">
        <result name="success" type="redirect">welcomeAction</result>
        <result name="input">/login.jsp</result>
    </action>
    <action name="welcomeAction" class="action.WelcomeAction">
        <result name="success">/welcome.jsp</result>
    </action>
    <action name="addAction" class="action.AddAction">
        <result name="success" type="redirect">welcomeAction</result>
        <result name="error">/error.jsp</result>
    </action>
    <action name="updateDataAction" class="action.UpdateDataAction">
        <result name="success">/updateProduct.jsp</result>
        <result name="error">/error.jsp</result>
    </action>
```

```
<%@ taglib prefix="s" uri="/struts-tags" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Update Product</title>
<link rel="stylesheet" href="style.css">
</head>
<body>

    <div align="center">
        <h2>Update Product</h2>
        <s:form action="updateAction" class="formTable">
            <s:textfield name="productId" label="Product Id" class="formTextField" readonly="true"/>
            <s:textfield name="productName" label="Product Name" class="formTextField"/>
            <s:textfield name="productCategory" label="Product Category" class="formTextField"/>
            <s:textfield name="productPrice" label="Product Price" class="formTextField"/>
            <s:submit value="Update Product" class="actionBtn"/>
        </s:form>
    </div>

</body>
</html>
```

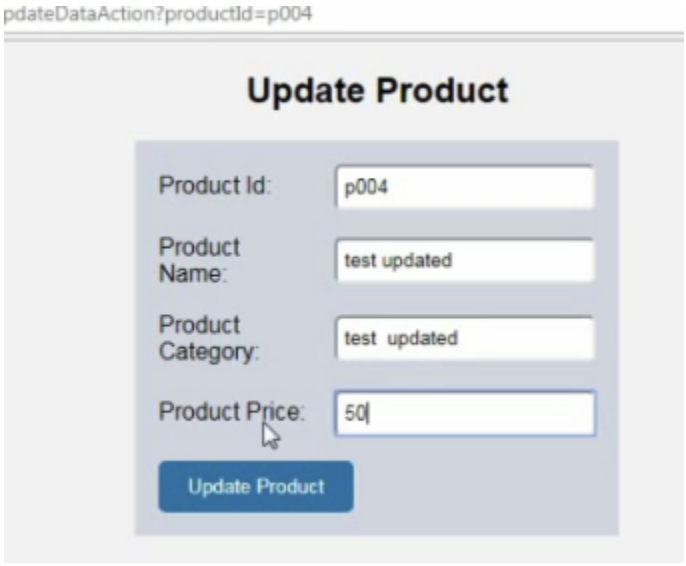
Read only true because for that product id we are doing an update.

```
<div align="center">
    <h2>Update Product</h2>
    <s:form action="updateAction" class="formTable">
        <s:textfield name="productId" label="Product Id" class="formTextField" readonly="true"/>
        <s:textfield name="productName" label="Product Name" class="formTextField"/>
```

Update action class

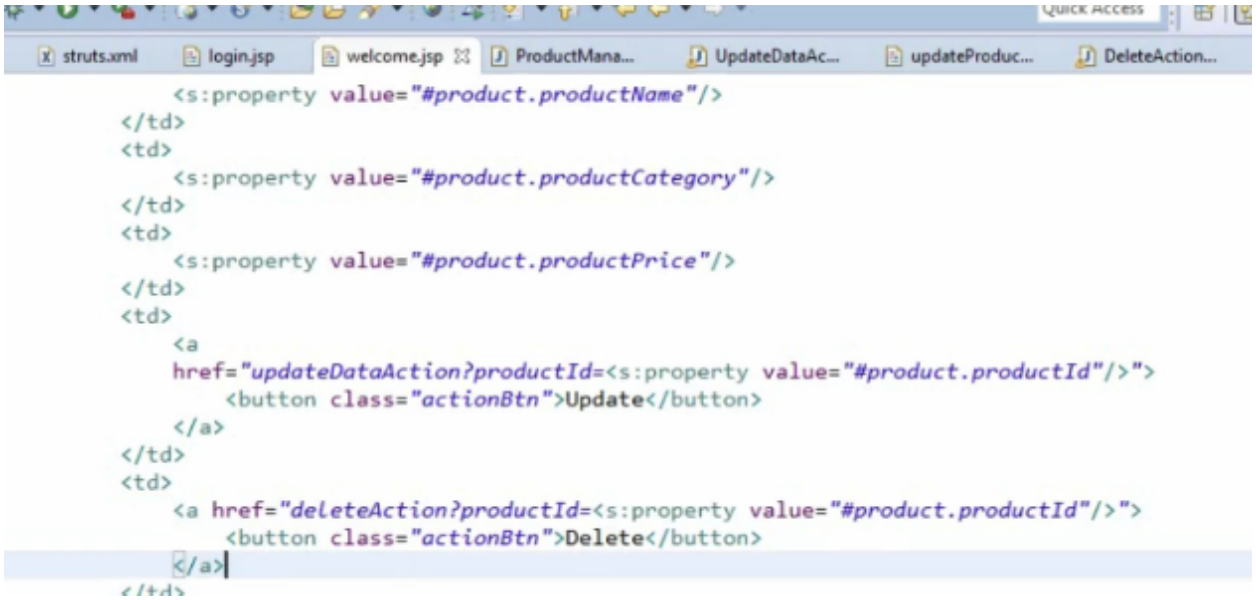



```
    </action>
    <action name="updateAction" class="action.UpdateAction">
      <result name="success" type="redirect">welcomeAction</result>
      <result name="error">/error.jsp</result>
    </action>
</package>
```

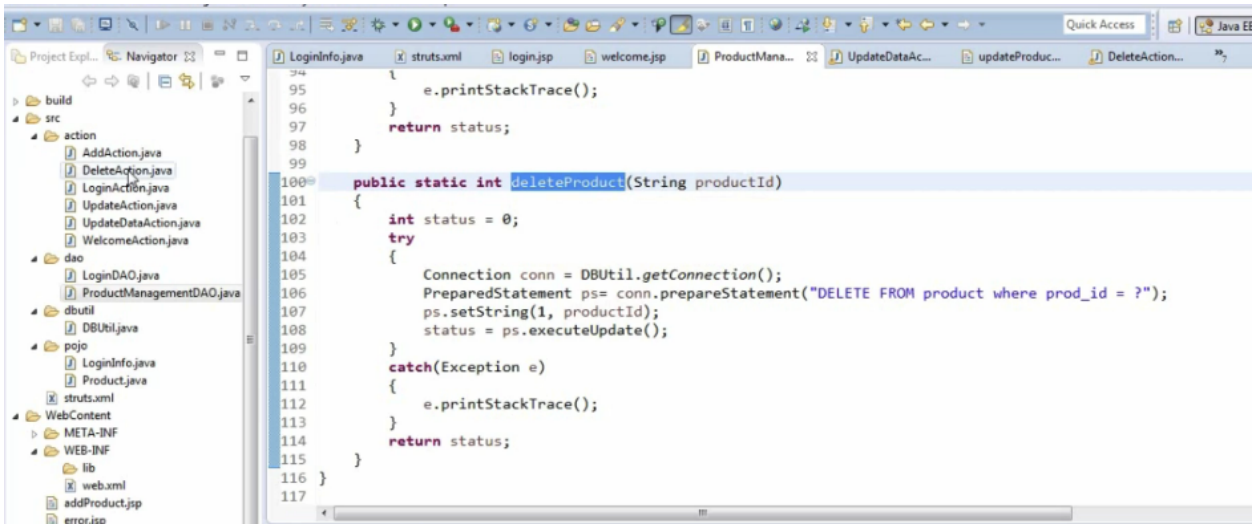


```
Enter password:
Connected.
SQL> set linesize 200
SQL> select * from product;

PROD_ID                        PROD_NAME                      PROD_CATEGORY                  PROD_PRICE
------------------------------ ------------------------------ ------------------------------ ----------
p001                           iPhone                         Mobile phones                       10000
p002                           Sony Bravia                    Television                           7000
p003                           Nikes Shoes                    Men's Fashion                        4000
p004                           test                           test                                 3444

SQL> select * from product;

PROD_ID                        PROD_NAME                      PROD_CATEGORY                  PROD_PRICE
------------------------------ ------------------------------ ------------------------------ ----------
p001                           iPhone                         Mobile phones                       10000
p002                           Sony Bravia                    Television                           7000
p003                           Nikes Shoes                    Men's Fashion                        4000
p004                           test updated                   test  updated                        5000

SQL>
```

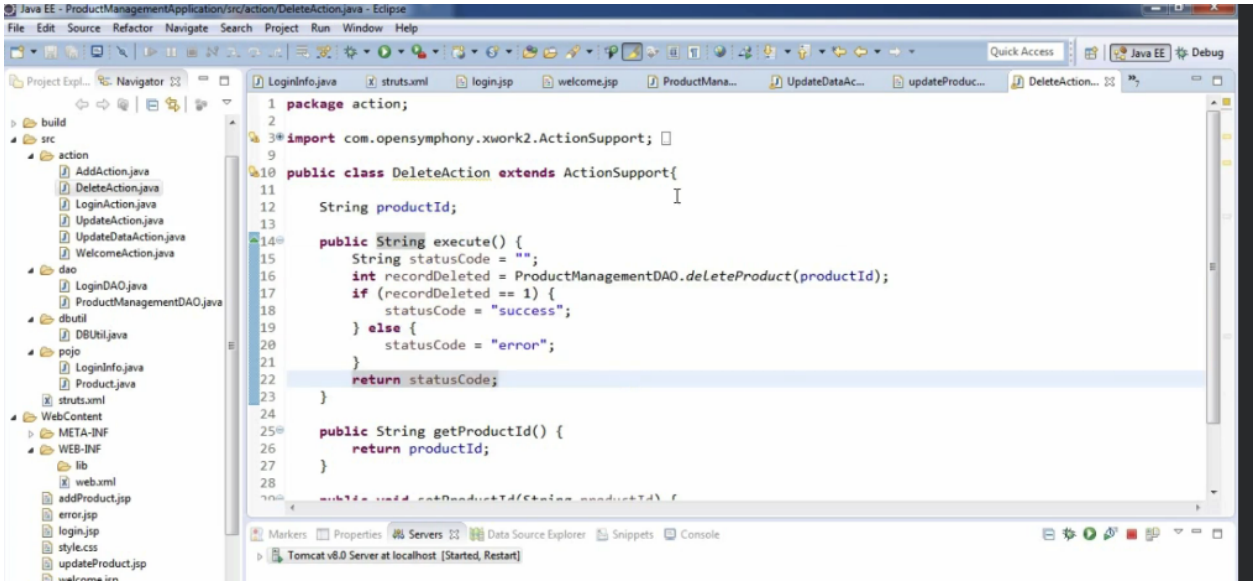
Delete product



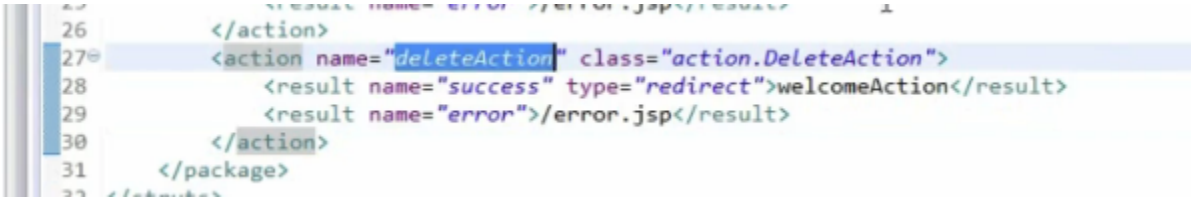
</td>
```
```



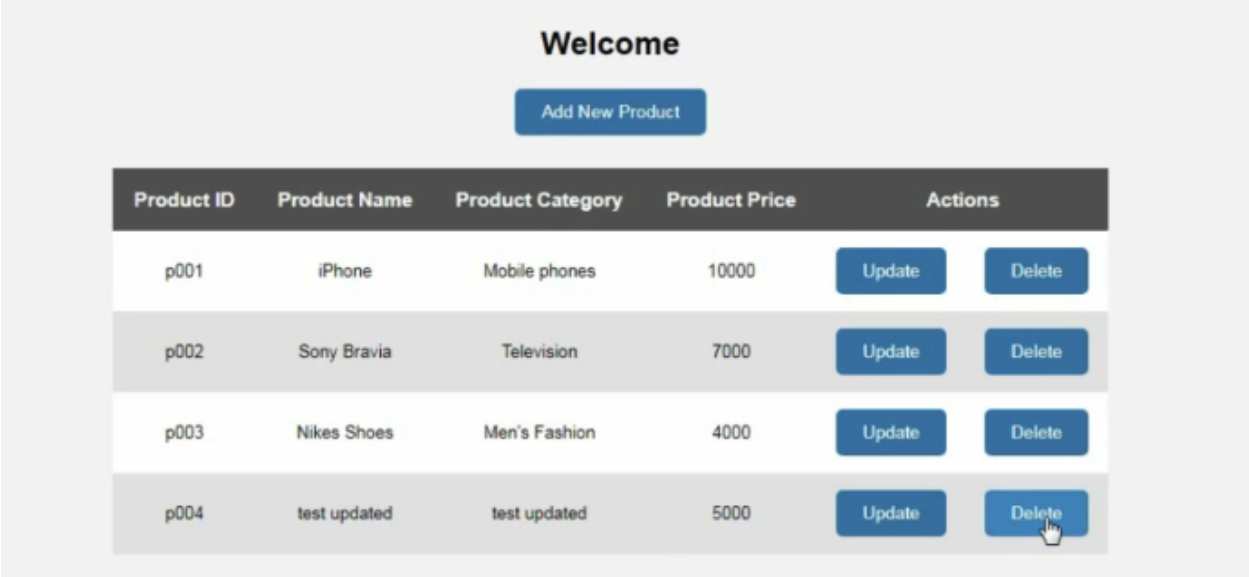
```
        {
            e.printStackTrace();
        }
        return status;
    }

    public static int deleteProduct(String productId)
    {
        int status = 0;
        try
        {
            Connection conn = DBUtil.getConnection();
            PreparedStatement ps= conn.prepareStatement("DELETE FROM product where prod_id = ?");
            ps.setString(1, productId);
            status = ps.executeUpdate();
        }
        catch(Exception e)
        {
            e.printStackTrace();
        }
        return status;
    }
}
```

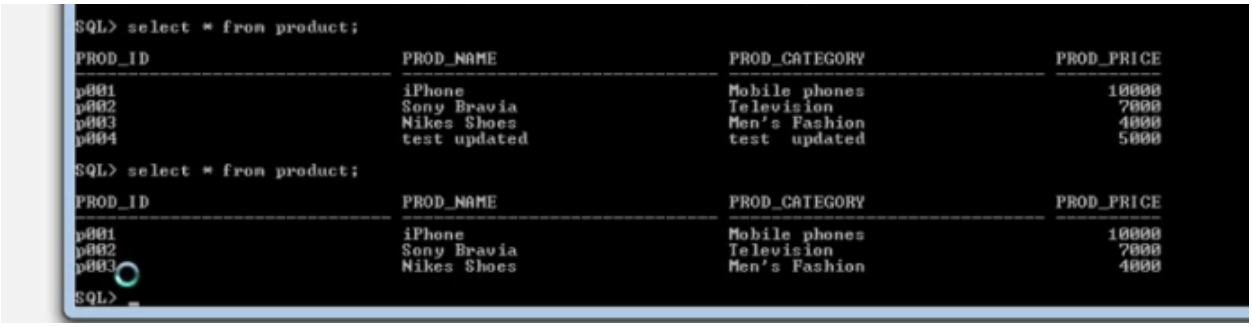


```
package action;

import com.opensymphony.xwork2.ActionSupport;

public class DeleteAction extends ActionSupport{

    String productId;

    public String execute() {
        String statusCode = "";
        int recordDeleted = ProductManagementDAO.deleteProduct(productId);
        if (recordDeleted == 1) {
            statusCode = "success";
        } else {
            statusCode = "error";
        }
        return statusCode;
    }

    public String getProductId() {
        return productId;
    }
```

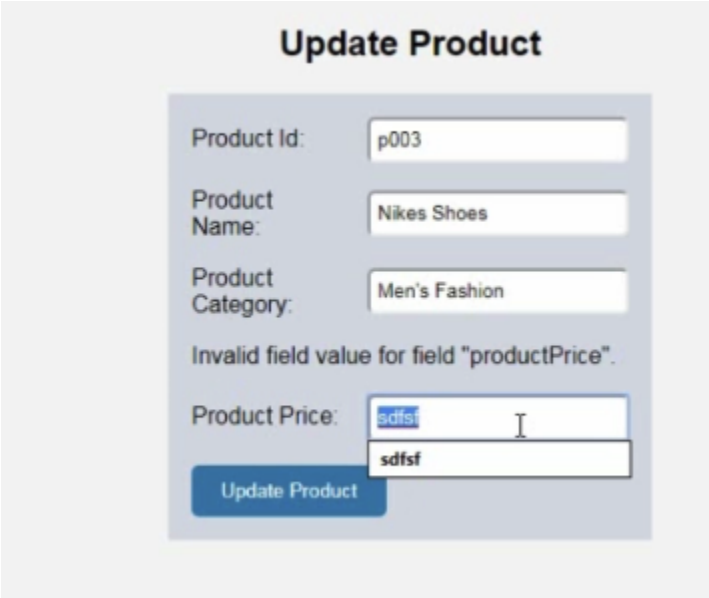


```
    </action>
    <action name="deleteAction" class="action.DeleteAction">
        <result name="success" type="redirect">welcomeAction</result>
        <result name="error">/error.jsp</result>
    </action>
</package>
```

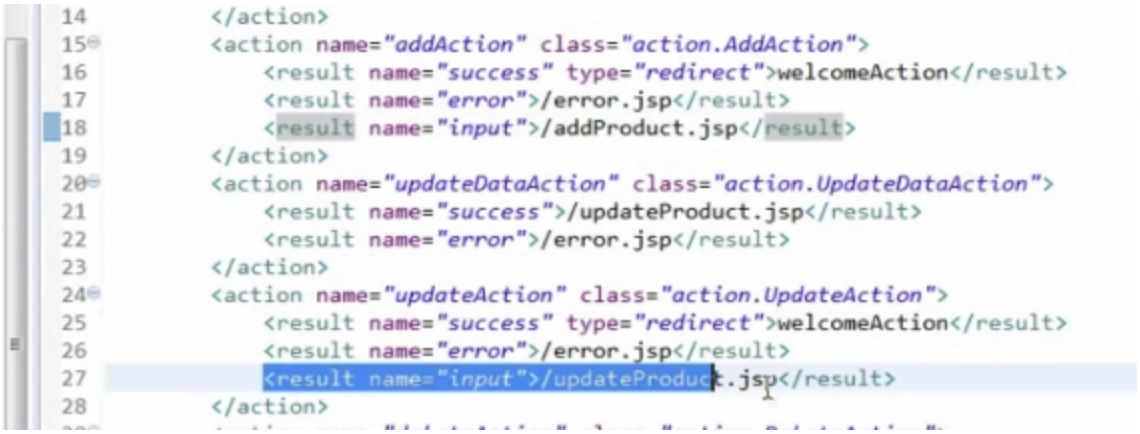




Running the application - validation



Notice validation. That is because of below tag in add action and update action.


14 </action>
15 <action name="addAction" class="action.AddAction">
16 <result name="success" type="redirect">welcomeAction</result>
17 <result name="error">/error.jsp</result>
18 <result name="input">/addProduct.jsp</result>
19 </action>
20 <action name="updateDataAction" class="action.UpdateDataAction">
21 <result name="success">/updateProduct.jsp</result>
22 <result name="error">/error.jsp</result>
23 </action>
24 <action name="updateAction" class="action.UpdateAction">
25 <result name="success" type="redirect">welcomeAction</result>
26 <result name="error">/error.jsp</result>
27 <result name="input">/updateProduct.jsp</result>
28 </action>