



프로그래밍 기초 및 응용

06. SQL 응용





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프로젝트 생성 및 구성

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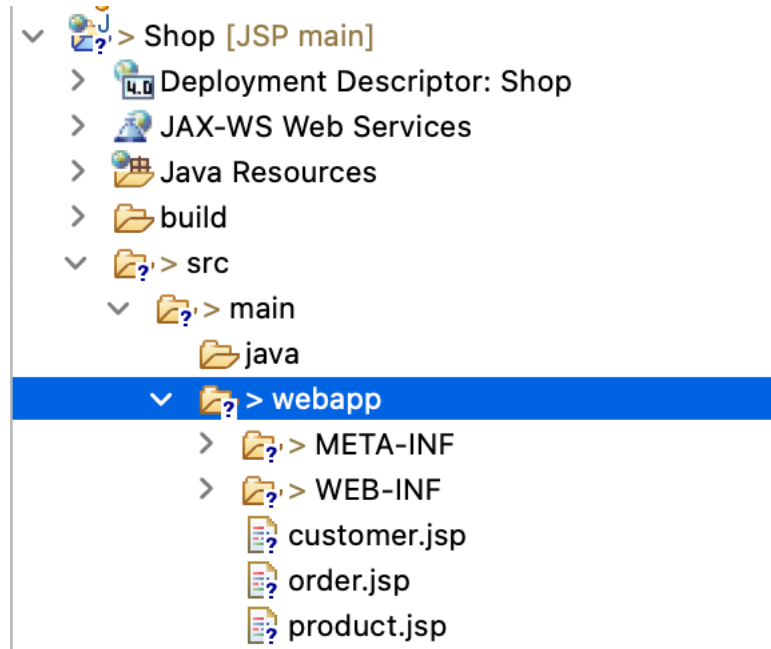
기능 구현

4

실행

문제1. 프로젝트 생성 및 구성

(1) 프로젝트 생성 및 하위 파일 구성



프로젝트명: Shop

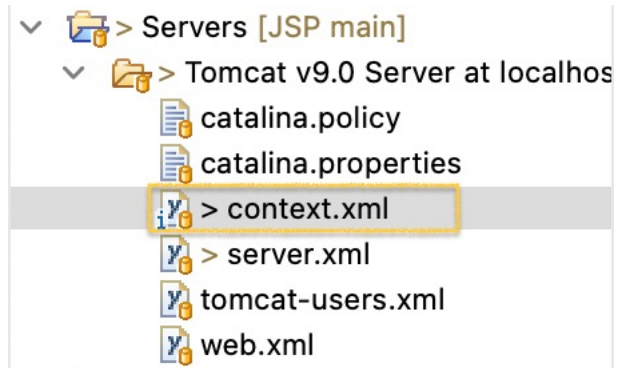
WAS: Tomcat 9

DB: java2_shop

개발도구: Eclipse, Workbench

문제1. 프로젝트 생성 및 구성

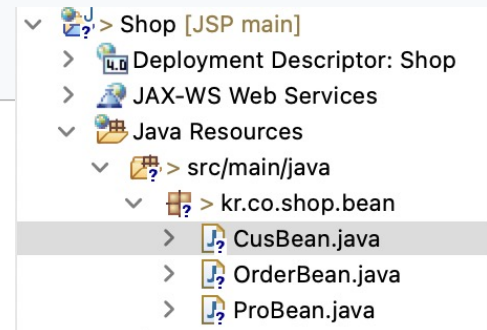
(2) context.xml - 커넥션풀 설정



```
<Resource
    name="dbcp_java2_shop"
    auth="Container"
    type="javax.sql.DataSource"
    driverClassName="com.mysql.cj.jdbc.Driver"
    url="jdbc:mysql://127.0.0.1:3306/java2_shop"
    username=" root"
    password="1234"
    maxTotal="16"
    maxIdle="16"
    maxWaitMillis="3000"
/>
```

문제1. 프로젝트 생성 및 구성

(3) CusBean, OrderBean, ProBean 생성

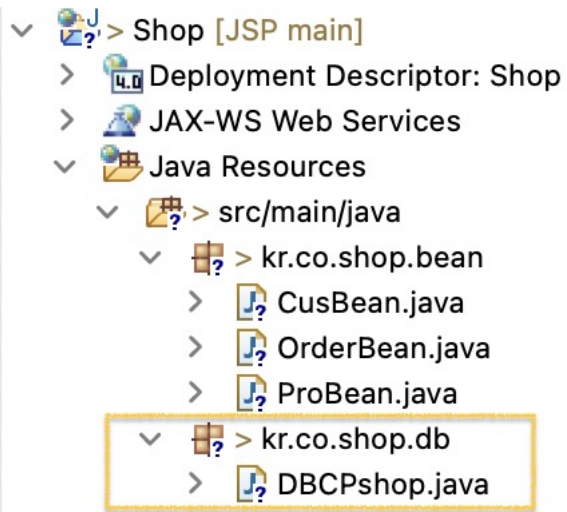


```
CusBean.java X product.jsp X productOrder.jsp X OrderBean.java X CusBean.java OrderBean.java ProBean.java X
Shop/src/main/webapp/product.jsp
1 package kr.co.shop.bean;
2
3 public class CusBean {
4     private String custId;
5     private String name;
6     private String hp;
7     private String addr;
8     private String rdate;
9     public String getCustId() {
10         return custId;
11     }
12     public void setCustId(String custId) {
13         this.custId = custId;
14     }
15     public String getName() {
16         return name;
17     }
18     public void setName(String name) {
19         this.name = name;
20     }
21     public String getHp() {
22         return hp;
23     }
24     public void setHp(String hp) {
25         this.hp = hp;
26     }
27     public String getAddr() {
28         return addr;
29     }
30
31     // 추가필드
32     private int orderNo;
33     private String orderId;
34     private int orderProduct;
35     private int orderCount;
36     private String orderDate;
37
38     private String name;
39     private String prodName;
40
41     public String getName() {
42         return name;
43     }
44     public void setName(String name) {
45         this.name = name;
46     }
47
48     public String getProdName() {
49         return prodName;
50     }
51     public void setProdName(String prodName) {
52         this.prodName = prodName;
53     }
54
55     public int getOrderNo() {
56         return orderNo;
57     }
58     public void setOrderNo(int orderNo) {
59         this.orderNo = orderNo;
60     }
61
62     public String getProdName() {
63         return prodName;
64     }
65     public void setProdName(String prodName) {
66         this.prodName = prodName;
67     }
68
69     public int getStock() {
70         return stock;
71     }
72     public void setStock(int stock) {
73         this.stock = stock;
74     }
75
76     public int getPrice() {
77         return price;
78     }
79     public void setPrice(int price) {
80         this.price = price;
81     }
82
83     public String getCompany() {
84         return company;
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86     public void setCompany(String company) {
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903        return prodName;
904    }
905    public void setProdName(String prodName) {
906        this.prodName = prodName;
907    }
908
909    public int getStock() {
910        return stock;
911    }
912    public void setStock(int stock) {
913        this.stock = stock;
914    }
915
916    public int getPrice() {
917        return price;
918    }
919    public void setPrice(int price) {
920        this.price = price;
921    }
922
923    public String getCompany() {
924        return company;
925    }
926    public void setCompany(String company) {
927        this.company = company;
928    }
929
930    public int getProdNo() {
931        return prodNo;
932    }
933    public void setProdNo(int prodNo) {
934        this.prodNo = prodNo;
935    }
936
937    public String getProdName() {
938        return prodName;
939    }
940    public void setProdName(String prodName) {
941        this.prodName = prodName;
942    }
943
944    public int getStock() {
945        return stock;
946    }
947    public void setStock(int stock) {
948        this.stock = stock;
949    }
950
951    public int getPrice() {
952        return price;
953    }
954    public void setPrice(int price) {
955        this.price = price;
956    }
957
958    public String getCompany() {
959        return company;
960    }
961    public void setCompany(String company) {
962        this.company = company;
963    }
964
965    public int getProdNo() {
966        return prodNo;
967    }
968    public void setProdNo(int prodNo) {
969        this.prodNo = prodNo;
970    }
971
972    public String getProdName() {
973        return prodName;
974    }
975    public void setProdName(String prodName) {
976        this.prodName = prodName;
977    }
978
979    public int getStock() {
980        return stock;
981    }
982    public void setStock(int stock) {
983        this.stock = stock;
984    }
985
986    public int getPrice() {
987        return price;
988    }
989    public void setPrice(int price) {
990        this.price = price;
991    }
992
993    public String getCompany() {
994        return company;
995    }
996    public void setCompany(String company) {
997        this.company = company;
998    }
999
1000   public int getProdNo() {
1001       return prodNo;
1002   }
1003   public void setProdNo(int prodNo) {
1004       this.prodNo = prodNo;
1005   }
1006
1007   public String getProdName() {
1008       return prodName;
1009   }
1010   public void setProdName(String prodName) {
1011       this.prodName = prodName;
1012   }
1013
1014   public int getStock() {
1015       return stock;
1016   }
1017   public void setStock(int stock) {
1018       this.stock = stock;
1019   }
1020
1021   public int getPrice() {
1022       return price;
1023   }
1024   public void setPrice(int price) {
1025       this.price = price;
1026   }
1027
1028   public String getCompany() {
1029       return company;
1030   }
1031   public void setCompany(String company) {
1032       this.company = company;
1033   }
1034
1035   public int getProdNo() {
1036       return prodNo;
1037   }
1038   public void setProdNo(int prodNo) {
1039       this.prodNo = prodNo;
1040   }
1041
1042   public String getProdName() {
1043       return prodName;
1044   }
1045   public void setProdName(String prodName) {
1046       this.prodName = prodName;
1047   }
1048
1049   public int getStock() {
1050       return stock;
1051   }
1052   public void setStock(int stock) {
1053       this.stock = stock;
1054   }
1055
1056   public int getPrice() {
1057       return price;
1058   }
1059   public void setPrice(int price) {
1060       this.price = price;
1061   }
1062
1063   public String getCompany() {
1064       return company;
1065   }
1066   public void setCompany(String company) {
1067       this.company = company;
1068   }
1069
1070   public int getProdNo() {
1071       return prodNo;
1072   }
1073   public void setProdNo(int prodNo) {
1074       this.prodNo = prodNo;
1075   }
1076
1077   public String getProdName() {
1078       return prodName;
1079   }
1080   public void setProdName(String prodName) {
1081       this.prodName = prodName;
1082   }
1083
1084   public int getStock() {
1085       return stock;
1086   }
1087   public void setStock(int stock) {
1088       this.stock = stock;
1089   }
1090
1091   public int getPrice() {
1092       return price;
1093   }
1094   public void setPrice(int price) {
1095       this.price = price;
1096   }
1097
1098   public String getCompany() {
1099       return company;
1100   }
1101   public void setCompany(String company) {
1102       this.company = company;
1103   }
1104
1105   public int getProdNo() {
1106       return prodNo;
1107   }
1108   public void setProdNo(int prodNo) {
1109       this.prodNo = prodNo;
1110   }
1111
1112   public String getProdName() {
1113       return prodName;
1114   }
1115   public void setProdName(String prodName) {
1116       this.prodName = prodName;
1117   }
1118
1119   public int getStock() {
1120       return stock;
1121   }
1122   public void setStock(int stock) {
1123       this.stock = stock;
1124   }
1125
1126   public int getPrice() {
1127       return price;
1128   }
1129   public void setPrice(int price) {
1130       this.price = price;
1131   }
1132
1133   public String getCompany() {
1134       return company;
1135   }
1136   public void setCompany(String company) {
1137       this.company = company;
1138   }
1139
1140   public int getProdNo() {
1141       return prodNo;
1142   }
1143   public void setProdNo(int prodNo) {
1144       this.prodNo = prodNo;
1145   }
1146
1147   public String getProdName() {
1148       return prodName;
1149   }
1150   public void setProdName(String prodName) {
1151       this.prodName = prodName;
1152   }
1153
1154   public int getStock() {
1155       return stock;
1156   }
1157   public void setStock(int stock) {
1158       this.stock = stock;
1159   }
1160
1161   public int getPrice() {
1162       return price;
1163   }
1164   public void setPrice(int price) {
1165       this.price = price;
1166   }
1167
1168   public String getCompany() {
1169       return company;
1170   }
1171   public void setCompany(String company) {
1172       this.company = company;
1173   }
1174
1175   public int getProdNo() {
1176       return prodNo;
1177   }
1178   public void setProdNo(int prodNo) {
1179       this.prodNo = prodNo;
1180   }
1181
1182   public String getProdName() {
1183       return prodName;
1184   }
1185   public void setProdName(String prodName) {
1186       this.prodName = prodName;
1187   }
1188
1189   public int getStock() {
1190       return stock;
1191   }
1192   public void setStock(int stock) {
1193       this.stock = stock;
1194   }
1195
1196   public int getPrice() {
1197       return price;
1198   }
1199   public void setPrice(int price) {
1200       this.price = price;
1201   }
1202
1203   public String getCompany() {
1204       return company;
1205   }
1206   public void setCompany(String company) {
1207       this.company = company;
1208   }
1209
1210   public int getProdNo() {
1211       return prodNo;
1212   }
1213   public void setProdNo(int prodNo) {
1214       this.prodNo = prodNo;
1215   }
1216
1217   public String getProdName() {
1218       return prodName;
1219   }
1220   public void setProdName(String prodName) {
1221       this.prodName = prodName;
1222   }
1223
1224   public int getStock() {
1225       return stock;
1226   }
1227   public void setStock(int stock) {
1228       this.stock = stock;
1229   }
1230
1231   public int getPrice() {
1232       return price;
1233   }
1234   public void setPrice(int price) {
1235       this.price = price;
1236   }
1237
1238   public String getCompany() {
1239       return company;
1240   }
1241   public void setCompany(String company) {
1242       this.company = company;
1243   }
1244
1245   public int getProdNo() {
1246       return prodNo;
1247   }
1248   public void setProdNo(int prodNo) {
1249       this.prodNo = prodNo;
1250   }
1251
1252   public String getProdName() {
1253       return prodName;
1254   }
1255   public void setProdName(String prodName) {
1256       this.prodName = prodName;
1257   }
1258
1259   public int getStock() {
1260       return stock;
1261   }
1262   public void setStock(int stock) {
1263       this.stock = stock;
1264   }
1265
1266   public int getPrice() {
1267       return price;
1268   }
1269   public void setPrice(int price) {
1270       this.price = price;
1271   }
1272
1273   public String getCompany() {
1274       return company;
1275   }
1276   public void setCompany(String company) {
1277       this.company = company;
1278   }
1279
1280   public int getProdNo() {
1281       return prodNo;
1282   }
1283   public void setProdNo(int prodNo) {
1284       this.prodNo = prodNo;
1285   }
1286
1287   public String getProdName() {
1288       return prodName;
1289   }
1290   public void setProdName(String prodName) {
1291       this.prodName = prodName;
1292   }
1293
1294   public int getStock() {
1295       return stock;
1296   }
1297   public void setStock(int stock) {
1298       this.stock = stock;
1299   }
1300
1301   public int getPrice() {
1302       return price;
1303   }
1304   public void setPrice(int price) {
1305       this.price = price;
1306   }
1307
1308   public String getCompany() {
1309       return company;
1310   }
1311   public void setCompany(String company) {
1312       this.company = company;
1313   }
1314
1315   public int getProdNo() {
1316       return prodNo;
1317   }
1318   public void setProdNo(int prodNo) {
1319       this.prodNo = prodNo;
1320   }
1321
1322   public String getProdName() {
1323       return prodName;
1324   }
1325   public void setProdName(String prodName) {
1326       this.prodName = prodName;
1327   }
1328
1329   public int getStock() {
1330       return stock;
1331   }
1332   public void setStock(int stock) {
1333       this.stock = stock;
1334   }
1335
1336   public int getPrice() {
1337       return price;
1338   }
1339   public void setPrice(int price) {
1340       this.price = price;
1341   }
1342
1343   public String getCompany() {
1344       return company;
1345   }
1346   public void setCompany(String company) {
1347       this.company = company;
1348   }
1349
1350   public int getProdNo() {
1351       return prodNo;
1352   }
1353   public void setProdNo(int prodNo) {
1354       this.prodNo = prodNo;
1355   }
1356
1357   public String getProdName() {
1358       return prodName;
1359   }
1360   public void setProdName(String prodName) {
1361       this.prodName = prodName;
1362   }
1363
1364   public int getStock() {
1365       return stock;
1366   }
1367   public void setStock(int stock) {
1368       this.stock = stock;
1369   }
1370
1371   public int getPrice() {
1372       return price;
1373   }
1374   public void setPrice(int price) {
1375       this.price = price;

```

문제1. 프로젝트 생성 및 구성

(4) DBCPshop 생성



```
DBCPshop.java X
1 package kr.co.shop.db;
2
3 import java.sql.Connection;
4 import java.sql.SQLException;
5
6 import javax.naming.InitialContext;
7 import javax.naming.NamingException;
8 import javax.sql.DataSource;
9
10 public class DBCPshop {
11
12     private static DataSource ds = null;
13
14     public static Connection getConnection() throws SQLException, NamingException {
15
16         if(ds == null) {
17             ds = (DataSource) new InitialContext().lookup("java:comp/env/dbcp_java2_shop");
18
19         }
20         return ds.getConnection();
21     }
22
23 }
```

문제2. 화면 구현

(1) customer, order, product 화면 구현

Shop::customer

localhost:8080/Shop/data/customer.jsp

고객 목록

고객목록

주문목록

상품목록

아이디	이름	휴대폰	주소	가입일
c101	김유신	010-1234-1001	김해시 봉황동	2022-01-01
c102	김춘추	010-1234-1002	경주시 보문동	2022-01-02
c103	장보고	010-1234-1003	완도군 청산면	2022-01-03
c104	강감찬	010-1234-1004	서울시 마포구	2022-01-04
c105	이성계	null	null	2022-01-05
c106	정철	010-1234-1006	경기도 용인시	2022-01-06
c107	허준	null	null	2022-01-07
c108	이순신	010-1234-1008	서울시 영등포구	2022-01-08
c109	송상현	010-1234-1009	부산시 동래구	2022-01-09
c110	정약용	010-1234-1010	경기도 광주시	2022-01-10

Shop::order

localhost:8080/Shop/data/order.jsp

주문목록

고객목록

주문목록

상품목록

주문번호	주문자	주문상품	주문수량	주문일
1	김춘추	포카칩	2	2022-07-01 13:15:10
2	김유신	양파링	1	2022-07-01 14:16:11
3	이순신	새우깡	1	2022-07-01 17:23:18
4	송상현	마카렛트	5	2022-07-02 10:46:36
5	김춘추	초코파이	1	2022-07-03 09:15:37
6	김유신	뿌셔뿌셔	3	2022-07-03 12:35:12
7	정약용	새우깡	2	2022-07-03 16:55:36
8	강감찬	초코파이	4	2022-07-04 14:23:23
9	김춘추	새우깡	3	2022-07-04 21:54:34
10	허준	마카렛트	1	2022-07-05 14:21:03

Shop::product

localhost:8080/Shop/data/product.jsp

상품 목록

고객목록

주문목록

상품목록

상품번호	상품명	재고량	가격	제조사	주문
1	새우깡	5000	1500	농심	주문
2	초코파이	2500	2500	오리온	주문
3	포카칩	3600	1700	오리온	주문
4	양파링	1250	1800	농심	주문
5	조리퐁	2200	0	크라운	주문
6	마카렛트	3500	3500	롯데	주문
7	뿌셔뿌셔	1650	1200	오뚜기	주문

localhost:8080/Shop/data/product.jsp

문제2. 화면 구현 - customer

```
<%@page import="com.google.gson.Gson"%>
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.Statement"%>
<%@page import="kr.co.shop.db.DBCPshop"%>
<%@page import="java.sql.Connection"%>
<%@page import="java.util.ArrayList"%>
<%@page import="kr.co.shop.bean.CusBean"%>
<%@page import="java.util.List"%>
<%@ page contentType="text/html;charset=UTF-8" pageEncoding="UTF-8"%>
<%
List<CusBean> customers = new ArrayList<>();

try{
    Connection conn = DBCPshop.getConnection();
    Statement stmt = conn.createStatement();
    ResultSet rs = stmt.executeQuery("select * from `Customer`");
    while(rs.next()){
        CusBean cb = new CusBean();
        cb.setCustId(rs.getString(1));
        cb.setName(rs.getString(2));
        cb.setHp(rs.getString(3));
        cb.setAddr(rs.getString(4));
        cb.setRdate(rs.getString(5));
        customers.add(cb);
    }
    rs.close();
    stmt.close();
    conn.close();
}catch(Exception e){
    e.printStackTrace();
}

%>
```

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Shop::customer</title>
</head>
<body>
<h3>고객 목록</h3>
<a href="./customer.jsp">고객목록</a>
<a href="./order.jsp">주문목록</a>
<a href="./product.jsp">상품목록</a>
<table border="1">
<tr>
<th>아이디</th>
<th>이름</th>
<th>휴대폰</th>
<th>주소</th>
<th>가입일</th>
</tr>
<% for (CusBean cb : customers) { %>
<tr>
<td><%= cb.getCustId() %></td>
<td><%= cb.getName() %></td>
<td><%= cb.getHp() %></td>
<td><%= cb.getAddr() %></td>
<td><%= cb.getRdate() %></td>
</tr>
<% } %>
</table>
</body>
</html>
```


문제2. 화면 구현 - order

```
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.Statement"%>
<%@page import="kr.co.shop.db.DBCPshop"%>
<%@page import="java.sql.Connection"%>
<%@page import="java.util.ArrayList"%>
<%@page import="kr.co.shop.bean.OrderBean"%>
<%@page import="java.util.List"%>
<% page contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%
List<OrderBean> orders = new ArrayList<>();

try{
    Connection conn = DBCPshop.getConnection();
    Statement stmt = conn.createStatement();
    String sql = "(select b.`orderNo`, a.`name`, c.`prodName`, b.`orderCount`,
    b.`orderDate` from `Customer` as a join `Order` as b on a.`custId` =
    b.`orderId` join `Product` as c on b.`orderProduct` = c.`prodNo`)";
    ResultSet rs = stmt.executeQuery(sql);
    while(rs.next()){
        OrderBean ob = new OrderBean();
        ob.setOrderNo(rs.getInt(1));
        ob.setName(rs.getString(2));
        ob.setProdName(rs.getString(3));
        ob.setOrderCount(rs.getInt(4));
        ob.setOrderDate(rs.getString(5));
        orders.add(ob);
    }
    rs.close();
    stmt.close();
    conn.close();
}catch(Exception e){
    e.printStackTrace();
}
%>
```

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Shop::order</title>
</head>
<body>
<h3>주문목록</h3>
<a href="/customer.jsp">고객목록</a>
<a href="/order.jsp">주문목록</a>
<a href="/product.jsp">상품목록</a>
<table border="1">
    <tr>
        <th>주문번호</th>
        <th>주문자</th>
        <th>주문상품</th>
        <th>주문수량</th>
        <th>주문일</th>
    </tr>
    <% for (OrderBean ob : orders) { %>
    <tr>
        <td><%= ob.getOrderNo() %></td>
        <td><%= ob.getName() %></td>
        <td><%= ob.getProdName() %></td>
        <td><%= ob.getOrderCount() %></td>
        <td><%= ob.getOrderDate() %></td>
    </tr>
    <% } %>
</table>
</body>
</html>
```

문제2. 화면 구현 - product

```
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.Statement"%>
<%@page import="kr.co.shop.db.DBCPshop"%>
<%@page import="java.sql.Connection"%>
<%@page import="java.util.ArrayList"%>
<%@page import="kr.co.shop.bean.ProBean"%>
<%@page import="java.util.List"%>
<%@ page contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%
```

```
List<ProBean> products = new ArrayList<>();
```

```
try{
    Connection conn = DBCPshop.getConnection();
    Statement stmt = conn.createStatement();
    ResultSet rs = stmt.executeQuery("select * from `Product`");
    while(rs.next()){
        ProBean pb = new ProBean();
        pb.setProdNo(rs.getInt(1));
        pb.setProdName(rs.getString(2));
        pb.setStock(rs.getInt(3));
        pb.setPrice(rs.getInt(4));
        pb.setCompany(rs.getString(5));
        products.add(pb);
    }
    rs.close();
    stmt.close();
    conn.close();
}catch(Exception e){
    e.printStackTrace();
}
%>
```

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Shop::product</title>

</head>
<body>
<h3>상품 목록</h3>
<a href="/customer.jsp">고객목록</a>
<a href="/order.jsp">주문목록</a>
<a href="/product.jsp">상품목록</a>
<table border="1">
    <tr>
        <th>상품번호</th>
        <th>상품명</th>
        <th>재고량</th>
        <th>가격</th>
        <th>제조사</th>
        <th>주문</th>
    </tr>
    <% for (ProBean pb : products) { %>
    <tr>
        <td><%= pb.getProdNo() %></td>
        <td><%= pb.getProdName() %></td>
        <td><%= pb.getStock() %></td>
        <td><%= pb.getPrice() %></td>
        <td><%= pb.getCompany() %></td>
        <td>
            <button class="btnOrder" value="<%= pb.getProdNo() %>">주문</button>
        </td>
    </tr>
    <% } %>
</table>
<section></section>
</body>
</html>
```

문제3. 기능 구현 - product

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Shop::product</title>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.1/jquery.min.js"></script>
<script>
$(function(){
$('.btnOrder').click(function(){
$('.section').empty();
let orderNo = $(this).val();
let table = "<table border='1'>";
table += "<tr>";
table += "<td>상품번호</td>";
table += "<td><input type='text' name='orderNo' value='"+orderNo+"'></td>";
table += "</tr>";
table += "<tr>";
table += "<td>수량</td>";
table += "<td><input type='text' name='orderCount'></td>";
table += "</tr>";
table += "<td>주문자</td>";
table += "<td><input type='text' name='orderId'></td>";
table += "</tr>";
table += "</table>";
$('.section').append("<h4>주문하기</h4>");
$('.section').append(table);
});
});
```

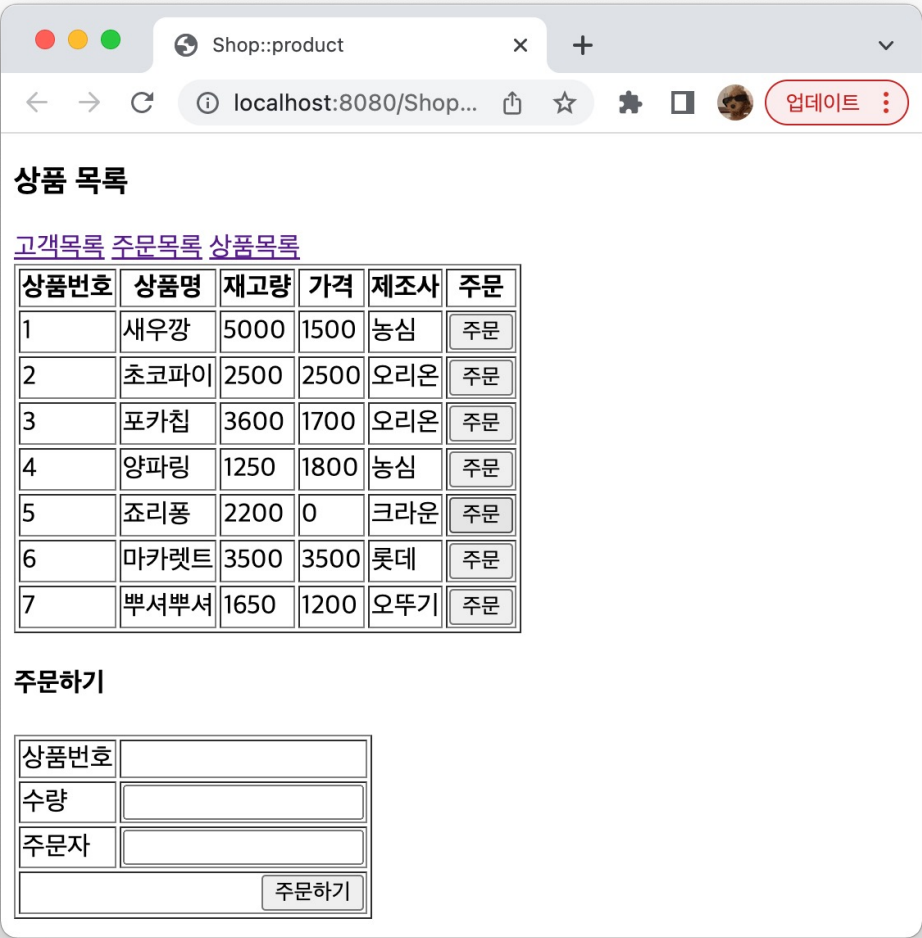
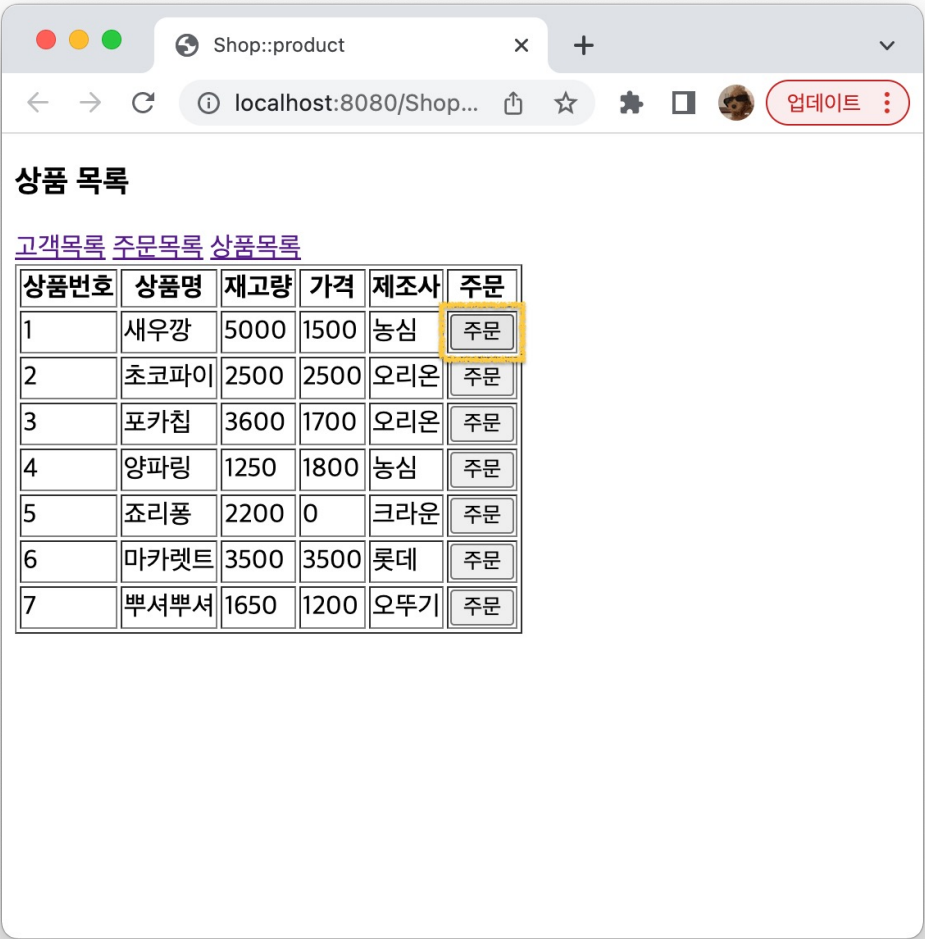
```
/* 주문하기 폼 입력 후 '주문하기'버튼 클릭 시*/
$(function(){
$(document).on('click', '#btnProductOrder', function (e) {
e.preventDefault();
// 입력한 데이터 가져오기
let orderNo = $('input[name=orderNo]').val();
let orderCount = $('input[name=orderCount]').val();
let orderId = $('input[name=orderId]').val();
// 가져온 데이터(JSON) 생성하기
let jsonData = {
"orderNo":orderNo,
"orderCount":orderCount,
"orderId":orderId
};
console.log(jsonData);
// 데이터 전송
$.ajax({
url: './insert.jsp',
method: 'post',
data: jsonData,
dataTye: 'json',
success:function(data){
if(data.result == 1){
alert('주문완료!');
}else{
alert('주문실패!');
}
}
});
});
</script>
```

문제3. 기능 구현 - product

```
<%@page import="com.google.gson.JsonObject"%>
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.PreparedStatement"%>
<%@page import="kr.co.shop.db.DBCPshop"%>
<%@page import="java.sql.Connection"%>
<%@ page contentType="application/json;charset=UTF-8" pageEncoding="UTF-8"%>
<%
request.setCharacterEncoding("utf-8");
String orderNo = request.getParameter("orderNo");
String orderCount = request.getParameter("orderCount");
String orderId = request.getParameter("orderId");
int result = 0;
try{
    Connection conn = DBCPshop.getConnection();
    String sql = "insert into `order` (`orderId`, `orderProduct`, `orderCount`,
`orderDate`) values (?,?,?,NOW())";
    PreparedStatement psmt = conn.prepareStatement(sql);
    psmt.setString(1, orderId);
    psmt.setString(2, orderNo);
    psmt.setString(3, orderCount);
    result = psmt.executeUpdate();
    psmt.close();
    conn.close();
}catch(Exception e){
    e.printStackTrace();
}
JsonObject json = new JsonObject();
json.addProperty("result", result);
String jsonData = json.toString();
out.print(jsonData);
%>
```

문제3. 기능 구현

(1) 상품별 주문 클릭 시, 하단 주문하기 화면 출력 (상품 번호는 자동 입력)



문제4. 실행

Shop::product

localhost:8080/Shop/product.jsp업데이트

상품 목록

[고객목록](#) [주문목록](#) [상품목록](#)

상품번호	상품명	재고량	가격	제조사	주문
1	새우깡	5000	1500	농심	주문
2	초코파이	2500	2500	오리온	주문
3	포카칩	3600	1700	오리온	주문
4	양파링	1250	1800	농심	주문
5	조리퐁	2200	0	크라운	주문
6	마카렛트	3500	3500	롯데	주문
7	뿌셔뿌셔	1650	1200	오뚜기	주문

주문하기

상품번호

7

수량

5

주문자

c113

주문하기

(MySQL 8.0.30) 수입DB/java2_shop/Order

java2_shop

Select DatabaseStructureContentRelationsTriggersTable InfoQueryTable HistoryUsersConsole

TABLES

CustomerOrderProduct

orderNo	orderId	orderProduct	orderCount	orderDate
2	c101		4	1 2022-07-01 14:16:11
6	c101		7	3 2022-07-03 12:35:12
1	c102		3	2 2022-07-01 13:15:10
5	c102		2	1 2022-07-03 09:15:37
9	c102		1	3 2022-07-04 21:54:34
8	c104		2	4 2022-07-04 14:23:23
10	c107		6	1 2022-07-05 14:21:03
3	c108		1	1 2022-07-01 17:23:18
4	c109		6	5 2022-07-02 10:46:36
7	c110		1	2 2022-07-03 16:55:36
12	c113		7	5 2022-10-25 19:22:17
11	c123		2	10 2022-10-25 19:21:26

TABLE INFORMATION

created: 2022/10/14

engine: InnoDB

rows: 12

size: 16.0 KiB

encoding: utf8mb4 (09...

auto_increment: 10

12 rows in table; 1 row selected