

Create a Java program to demonstrate JDBC and Spring Integration

ProductController.java

```
package com.ecommerce.controller;

import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.ModelMap;
import org.springframework.web.bind.annotation.*;

import com.ecommerce.EProduct;
import com.ecommerce.dao.EProductDAO;

@Controller
public class ProductController {

    @Autowired
    EProductDAO eproductDAO;

    @RequestMapping(value = "/listProducts", method = RequestMethod.GET)
    public String listProducts(ModelMap model) {
        List<EProduct> listOfProducts = eproductDAO.getProducts();

        model.addAttribute("list", listOfProducts);

        return "listProducts"; // go to listProducts.jsp
    }

    @RequestMapping(value = "/addProduct", method = RequestMethod.POST)
    public String addProduct(@RequestParam String name, @RequestParam float price) {
        eproductDAO.addProduct(name, price);

        return "addProductSuccess"; // go to addProductSuccess.jsp
    }

    @RequestMapping(value = "/deleteProduct", method = RequestMethod.POST)
    public String deleteProduct(@RequestParam int id) {
        eproductDAO.deleteProduct(id);

        return "deleteProductSuccess"; // go to deleteProductSuccess.jsp
    }
}
```

EProductDAO.java

```
package com.ecommerce.dao;

import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.List;

import org.springframework.jdbc.core.JdbcTemplate;
import org.springframework.jdbc.core.RowMapper;

import com.ecommerce.EProduct;

public class EProductDAO {

    JdbcTemplate template;

    public void setTemplate(JdbcTemplate template) {
        this.template = template;
    }
    // Business methods
    public List<EProduct> getProducts() {

        return template.query("select * from eproduct", new RowMapper<EProduct>()
        {
            public EProduct mapRow(ResultSet rs, int row) throws SQLException {
                EProduct e = new EProduct();

                e.setID(rs.getInt(1));
                e.setName(rs.getString(2));
                e.setPrice(rs.getBigDecimal(3));
                e.setDateAdded(rs.getDate(4));

                return e;
            }
        });
    }

    public void addProduct(String name, float price) {
        String insertSQL = "insert into eproduct(name,price) values(?,?)";
        template.update(insertSQL, new Object[] { name, price });
    }

    public void deleteProduct(int id) {
        String deleteSQL = "delete from eproduct where id=?";
        template.update(deleteSQL, new Object[] { id });
    }
}
```

EProduct.java

```
package com.ecommerce;

import java.math.BigDecimal;
import java.util.Date;

public class EProduct {

    private long ID;
    private String name;
    private BigDecimal price;
    private Date dateAdded;

    public long getID() {return this.ID; }
    public String getName() { return this.name;}
    public BigDecimal getPrice() { return this.price;}
    public Date getDateAdded() { return this.dateAdded;}

    public void setID(long id) { this.ID = id;}
    public void setName(String name) { this.name = name;}
    public void setPrice(BigDecimal price) { this.price = price;}
    public void setDateAdded(Date date) { this.dateAdded = date;}

}
```

add-product.html

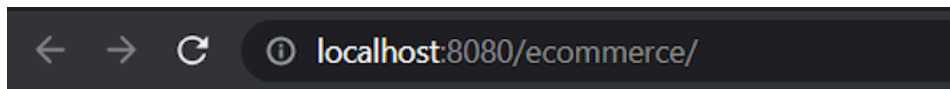
```
<h3> ADD a new Product here</h3>
<form action="addProduct" METHOD="POST">
NAME <input name="name"> <br>
PRICE <input name="price"><br><br>
<input type=submit>
</form>
```

add-product.jsp

```
<h3> ADD a new Product here</h3>
<form action="addProduct" METHOD="POST">
NAME <input name="name"> <br>
PRICE <input name="price"><br><br>
<input type=submit>
</form>
```

delete-product.jsp

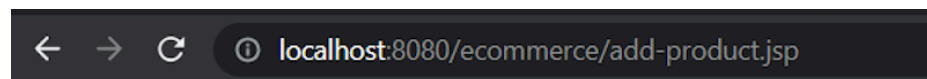
```
<h3> DELETE a Product here</h3>
<form action="deleteProduct" METHOD="POST">
ID <input name="id"> <br><br>
<input type="submit">
</form>
```



Spring Application

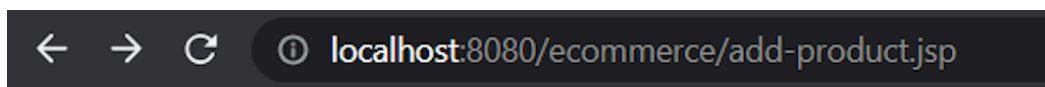
[List Products](#)

[ADD Products](#) [DELETE Products](#)



ADD a new Product here

NAME	<input type="text"/>
PRICE	<input type="text"/>
<input type="submit" value="Submit"/>	



ADD a new Product here

NAME	<input type="text" value="oppo"/>
PRICE	<input type="text" value="12000"/>
<input type="submit" value="Submit"/>	

← → ↻ ⓘ localhost:8080/ecommerce/addProduct

Product added successfully!

← → ↻ ⓘ localhost:8080/ecommerce/delete-product.jsp

DELETE a Product here

ID

← → ↻ ⓘ localhost:8080/ecommerce/deleteProduct

Product deleted successfully!

```
MySQL 8.0 Command Line Cli x + v
| phase2 |
| register |
| sakila |
| sys |
| world |
+-----+
13 rows in set (0.02 sec)

mysql> select *from ecommerce;
ERROR 1046 (3D000): No database selected
mysql> use ecommerce;
Database changed
mysql> select *from ecommerce;
ERROR 1146 (42S02): Table 'ecommerce.ecommerce' doesn't exist
mysql> select *from table;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version
for the right syntax to use near 'table' at line 1
mysql> select *from eproduct;
+-----+
| ID | name | price | date_added |
+-----+
| 1 | HP Laptop ABC | 12000.00 | 2023-06-07 09:46:41 |
| 2 | Acer Laptop ABC | 14000.00 | 2023-06-07 09:48:44 |
| 3 | Lenovo Laptop ABC | 192000.00 | 2023-06-07 09:48:44 |
| 4 | oppo | 12000.00 | 2023-06-07 11:16:58 |
| 5 | oppo | 12000.00 | 2023-06-07 11:17:07 |
+-----+
5 rows in set (0.00 sec)
```

```
MySQL 8.0 Command Line Cli x + v
Database changed
mysql> select *from ecommerce;
ERROR 1146 (42S02): Table 'ecommerce.ecommerce' doesn't exist
mysql> select *from table;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version
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+-----+
5 rows in set (0.00 sec)

mysql> select *from eproduct;
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+-----+
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| 4 | oppo | 12000.00 | 2023-06-07 11:16:58 |
| 5 | oppo | 12000.00 | 2023-06-07 11:17:07 |
+-----+
4 rows in set (0.00 sec)
```