OOAD Project6 Report

Name of Project: Online Supermarket System

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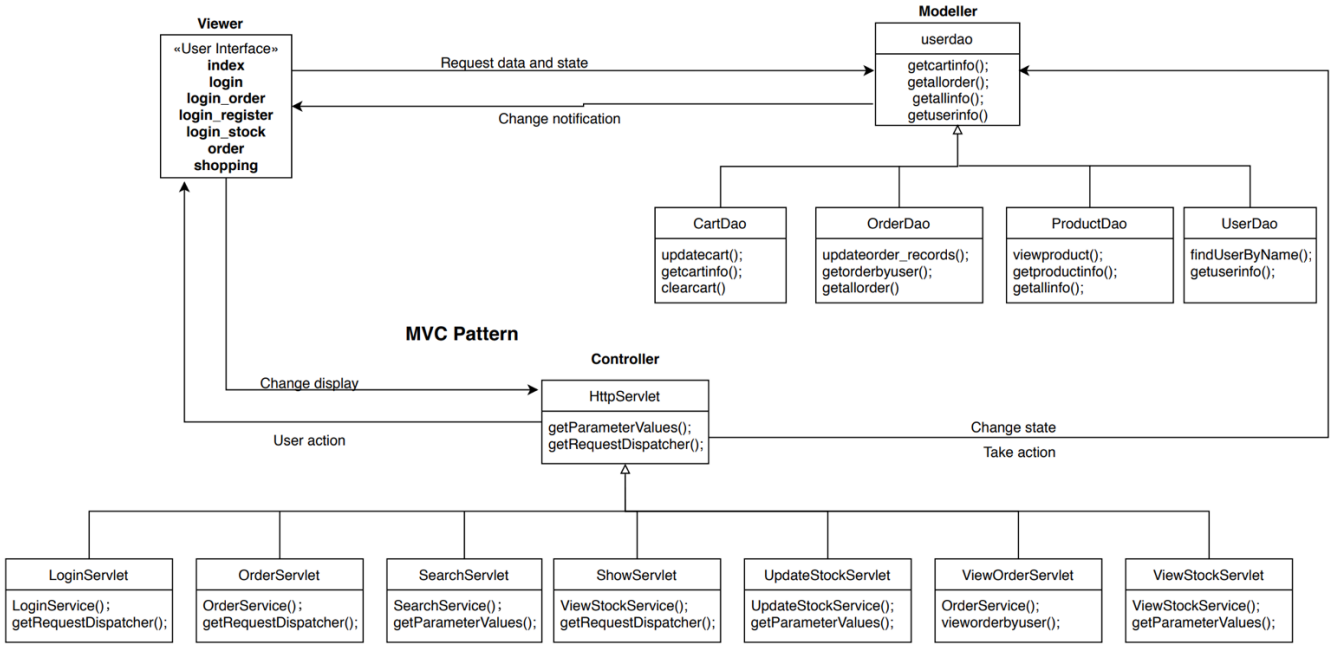
1. Final State of System Statement

In the semester project of Object-Oriented Analysis and Design course, our team built an online supermarket system. We named it 'Sunny Supermarket'. The system aims at helping salespersons check order, check product stocks as well as let customers search for products and place order. The system can support four types of users with different functions. The four types of users are registered customer, unregistered customer, stock staff and order staff. For registered customer, we implemented functions including log in, search, add to cart, place order and confirm order. The unregistered customer has all the functions above except login. The stock staff has functions including add, remove, update stock and view stock. The order staff has functions of check order. The tools and languages that we used are Java, SQL, mysql, tomcat, JavaScript and html.

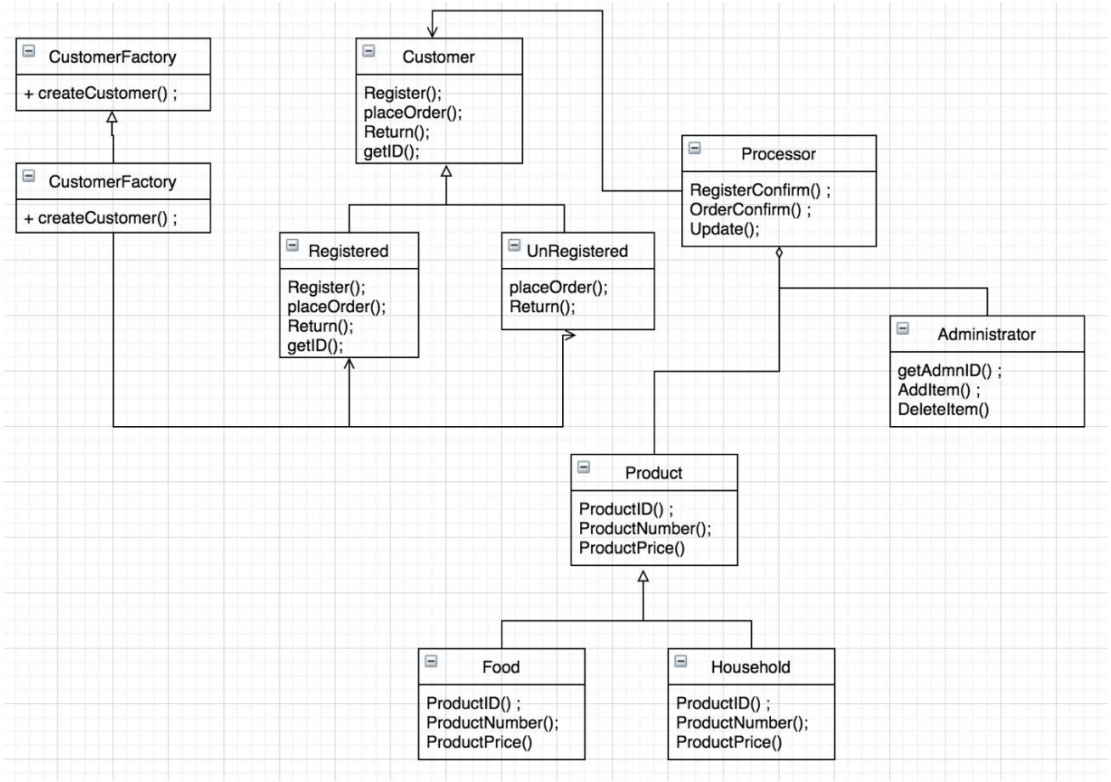
All the functions we mentioned in the proposal were successfully implemented. However, there are some differences between the system we actually built and the one we proposed. The first thing is the database. We planned use MongDB in the proposal, but we then found SQL would be better. So we used mysql database. Another thing is that in proposal we planned to use several design patterns including observer, factory, strategy, etc. But it turned out that by using the sql database and html front end language, we don't need to use so many patterns. In the system we used the MVC pattern.

2. Final Class Diagram and Comparison Statement

Final Class Diagram:



Class Diagram in Project 4:



There are many differences in class diagram of Project 4 and final class diagram. The key change is that in final submission, we used MVC pattern. The userdao package includes UserDao, ProductDao, OrderDao， CartDADao si served as the Model. It is used to connect the databases and make CURD of four tables (accounts, products, order_records, cart_records) in mysql. We remove the factory pattern.

3. Third-Party code vs. Original code Statement

We do not used codes from other source, but here are links of tools and tutorials we used:

https://tomcat.apache.org/

https://www.w3schools.com/html/

https://www.mysql.com/

https://docs.oracle.com/javase/tutorial/jdbc/basics/index.html

4. Statement on the OOAD process for your overall Semester Project

(1) The first important design process is to list all the functions that an online supermarket system. We visited many online groceries to see what are the main functions of those websites.

(2) The second point is a negative issue in the design process. When we were doing the design work, we kept thinking how to use observer and factory patterns, but it finally turned out that we did not have to use those two patterns. So probably we should remove some design elements if we do not necessarily need them.

(3) The third point is a positive element, which is the optimization of design. We have a simple version of the system when we finished the project 5. But we found some functions are not very good, so we made some optimization.