Online Shopping System

Background Report

**Motivation**

Online shopping system is a virtual store in which consumers can buy goods using a web browser. Comparing to shopping experience in conventional retail store, online shopping is very convenient without the limitation of locations and open and closed hours. Customers can get a wealth of product information, customer reviews and real-time service. In addition, customers are able to quickly seek out deals provided by many different vendors through price comparison services. Invented in 1979 and boomed after World Wide Web commercializing in 1990, online shopping system has huge commercial value. Only in Asia-Pacific, the sales increase over 30% per year and achieved over US$9.3 billion sales in Alibaba’s sites on peak online shopping day.

Our team members are all data science major and don’t have too much computer science background, developing an online shopping system can provide us the front-to-end understanding website building. Besides, it can deepen our understanding of database management using MySQL and sharpen our programming skills using Java. In addition, the development platforms like MySQL and JSP are very mature, guaranteeing the feasibility of system development in limited time. In general, considering the extensive application, a convenient way of understanding data management and practice diverse programming skills, online shopping system development is finally chosen as our project.

**Introduction**

In this project, our online shopping mall is designed into two modules, front module for customers who want to register on line, browser product and place orders, and background management system for storekeepers who can maintain product information, stocks and orders. The following figure is a brief introduction of our system (Fig.1). The main techniques used in this system include Java, SQL and JSP.



Fig.1 Flowchart of Online Shopping Mall

**Procedure**

Intending to realize an online shopping system based on MySQL and Java, we firstly need to construct a relational model on MySQL, including index and constraints.

In back end, we connect MySQL to Java with JDBC to manage user profile, inventory construction and order information. Then for front end, we develop a simple UI with JavaScript and adopt a server to realize it. The difficulty of this project lies in implementing a cart.