

COMP2013J DATABASES AND INFO SYS (S/E)-2022/23

BEIJING-DUBLIN INTERNATIONAL COLLEGE

Tiny Report1 (Week10)

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1 System Description

1.1 Introduction

The system constitutes an advanced shopping information platform, meticulously crafted to streamline and augment the digital shopping experience for both consumers and administrators. For consumers, the system offers an array of pivotal features, encompassing product exploration, filtration, and selection, which facilitate the effortless discovery of merchandise and the addition of items to their virtual cart based on multifarious criteria (such as category, price and other attributes). Concurrently, administrators are furnished with a robust, yet user-friendly, platform to proficiently manage product data, inventory, and updates. This all-encompassing system not only caters to the heterogeneous demands of e-commerce, but also ensures a fluid interaction between consumers and administrators, ultimately yielding a gratifying and expeditious shopping experience for all parties involved.

1.2 System Components

1.2.1 Database System

The core of this system lies in its robust and complex database system, which is designed to store and manage a wide range of product-related information. This includes product details, categories, inventory, user profiles, and transaction history. The database system will be structured in a way that efficiently supports the various functions and features of the system, such as search, filtering, and updating product information.

1.2.2 User Interface

The system's user interface is designed to deliver a seamless and intuitive experience for both users and administrators. Accessible exclusively via web browsers, the interface employs an easy-to-navigate layout, characterized by clear and concise menus and buttons, enabling users to swiftly locate and interact with their desired functions.

1.2.3 User Management

The system will support user authentication and authorization, allowing for a secure and personalized experience. Upon logging in, users can access their shopping cart, view transaction history, and manage their account settings. Administrators will have access to additional functionalities, such as managing product information and inventory.

1.3 Assumptions

1. Users and administrators have access to a stable internet connection and a device with a web browser.
2. The system will be used by individuals with basic computer skills.
3. Administrators have a basic understanding of product management and pricing.
4. The number of users and administrators accessing the system will not exceed the system's capacity.

1.4 Features

1. User authentication: Users can create accounts, log in, and manage their profile information.
2. Product browsing: Users can browse products by category, brand, price, and other relevant filters.
3. Search functionality: Users can search for products using keywords, product names, or descriptions.
4. Wishlist and cart management: Users can add items to a wishlist for future reference or add them to a shopping cart for immediate purchase.
5. Product management: Administrators can add, edit, and remove products, along with managing product details such as price, description, and images.

1.5 Implementation

The system will be implemented using a Java-based solution, and it does not rely on any complex ORM technology or MVC frameworks. The system will be developed using Java, along with HTML, CSS, and JavaScript for the front-end. A Java-based solution such as Java Servlets and JavaServer Pages (JSP) will be used for server-side programming. The database will be implemented using MySQL or a similar relational database management system. The front-end will be designed to be responsive and user-friendly, with a focus on clarity and ease of use.

1.6 Legal Considerations

The system will comply with all applicable laws and regulations, including data protection and privacy laws. User data will be stored securely, and the system will have measures in place to prevent unauthorized access and data breaches. Additionally, any copyrighted material used within the system (such as images, logos, etc.) will be properly licensed or used with permission from the copyright holder.

2 System Architecture Diagram

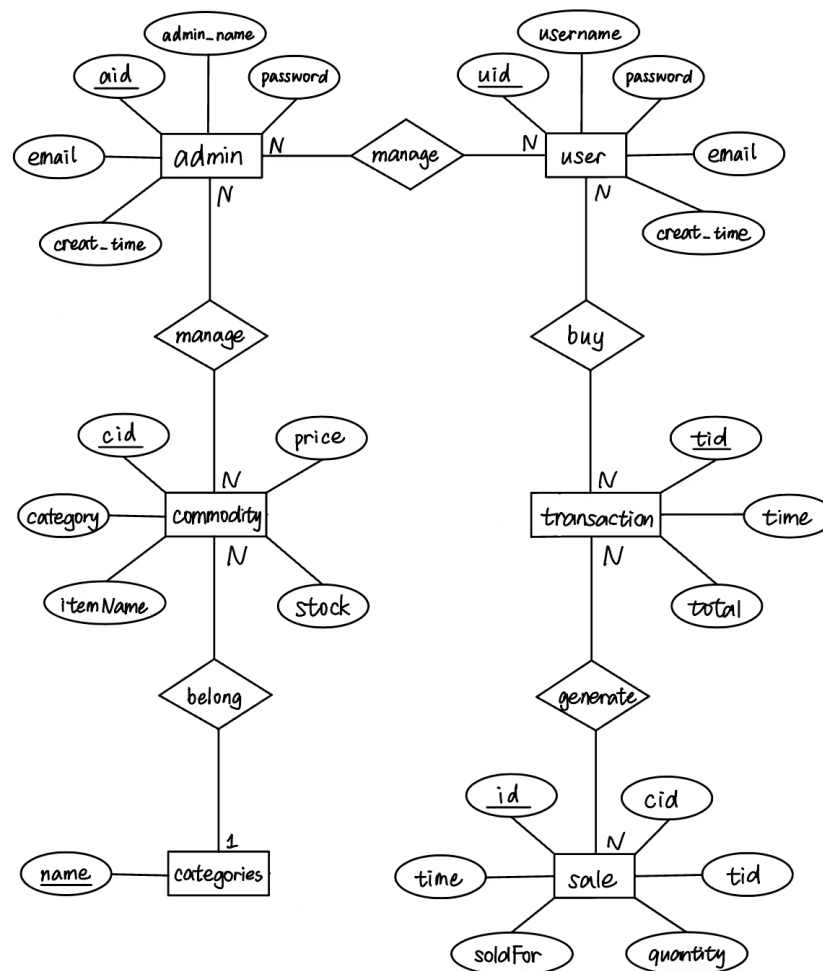


Figure 1: ER diagram

3 Self-assessing

As of the current stage of the Commodity Information System project, our team has successfully identified and agreed upon the primary theme of the data system we aim to develop. Through a series of brainstorming sessions and meticulous discussions, we have reached a consensus to focus on creating an advanced and efficient Commodity Information System. The distribution of tasks among team members is carefully discussed and determined to ensure that everyone's contribution to the team is equal. We have completed the textual description of the Commodity Information System, providing a comprehensive overview of its objectives, features, and functionalities. In the meantime, we have created a github repository for shared code and a shared database using a cloud database. So far we are making steady progress with our project.

4 Group Plan

Over the next two weeks we will be implementing the system as we aim to do, gradually completing the basic code and testing and maintaining it at the same time.