UTD

CS 6360.003 Database Design

Project – Phase 1 (Requirements Analysis)

Team Members:

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System Description

Our system/program will contain information about each valid member (buyers and sellers) and will be recognized by their unique identification number and is detailed with other information including phone number, Member Location, Member name, E-mail address, and password.

Users participating in our system would be either buyer or seller. In the database, the buyer's shipping address would be stored and from the seller's end, the bank account number and the routing number will be stored.
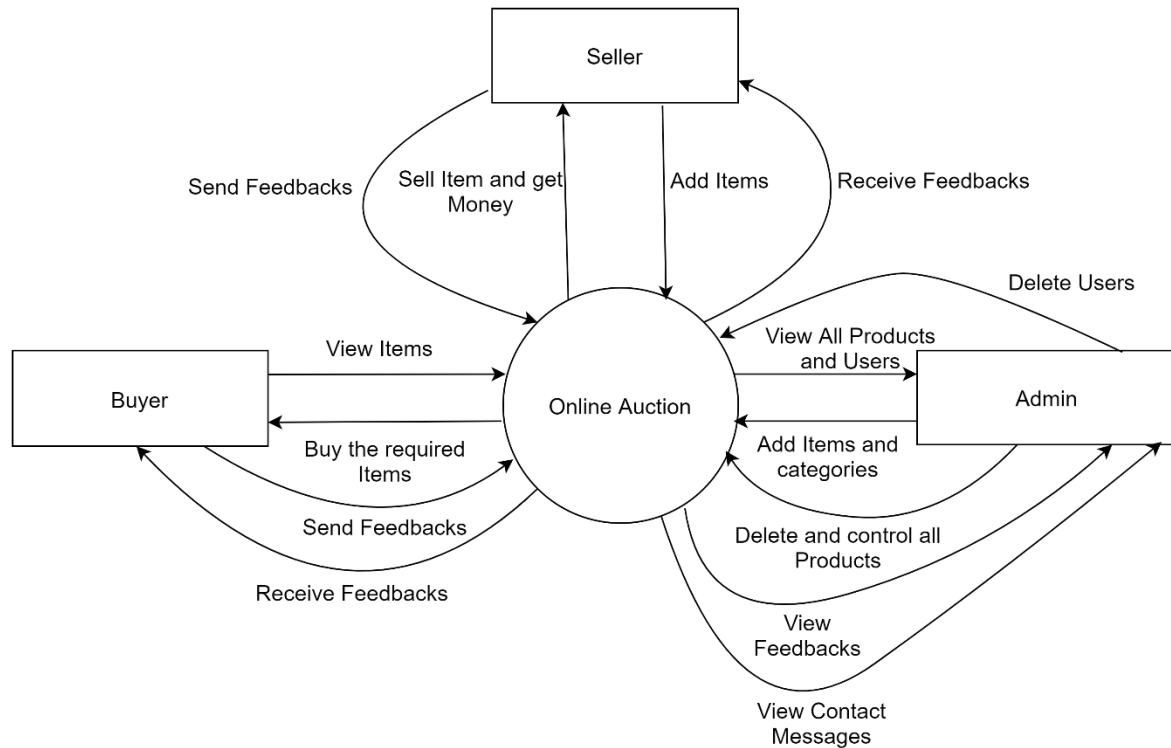
The products for sale are listed by the seller and are allocated a unique article the number assigned by the system. Products are also described by the article name, beginning bid price, bidding increment, auction start date, and the auction end date.

A predefined categorization hierarchy is also used to categorize elements.

Bids are placed on things buyers are interested in. The Bid amount and the Bid occurrence time are being recorded in the database. The purchaser with the utmost bid at the end of the auction is announced the winner and then the agreement between the buyer and seller is set about.

Rating the facility is implemented in our system through which buyer and seller can rate their individual feedback regarding their completed deal and also can comment as well.

Context Diagram (System Architecture)

Functional Requirements

Functional Requirements of	Functional Requirements
Login	System should allow the users to login only after verifying the username and password.
	System should restrict unauthorized user from logging-in.
	Facilitate the login process by remembering username and password.
	New user should be able to create the account.
	User can Sign Out.
Browser	System should allow user to bid on all available and desired products.
	System should allow users to view expired as well as live biddings.

	System should allow sellers to advertise their product they want to sell.
	System should allow buyers to view their purchase history.
Administration	Admin should be able to control, view, delete, and search all the products.
	Admin should be able to view all the users and their feedbacks.
	Admin should be able to view message between buyers and sellers.
	Admin should be able to delete a user's account in case of violation of website policies.
	Admin should be able to view all the user whether it is buyer or seller.
	Admin should be able to add categories in the database.

Non-Functional Requirements

NFR Type	NFR	Description
Time	Latency	Time period between issuing of command and response received for it.
Application Access	Multi-user Bids	Multiple-user bidding for the same item at a given point of time, will be able to put up bids.
Performance	System Performance	Time taken to access the information stored in database, should not take more than a minute.
		Application should load in less than a minute.
		Application should be able to handle 1000 transactions per hour.

		Database should be able to handle/store minimum 5 Gb's of data.
Availability	Operational Hours	Maintenance times/Downtime when upgrading the application.

Interface requirements

1. Hardware Requirements:
   - RAM: 2 GB or higher
   - OS: Windows 8 or higher
   - Hard disk space: 10GB
   - CPU: i5 core
2. Software Requirements:
   - Java (to create the Application program) / JDBC (for connection purposes)
   - MySQL (for database creation)
3. User Interface Requirements:
   - Admin
   - Sign up (for old buyer/sellers and new buyers/sellers)
   - Buyer's Page
   - Seller's Page
4. Front-end Technology:
   - JSP
   - JavaScript
   - CSS
5. Back-end Technology:
   - Java – Spring Boot
   - MySQL Database