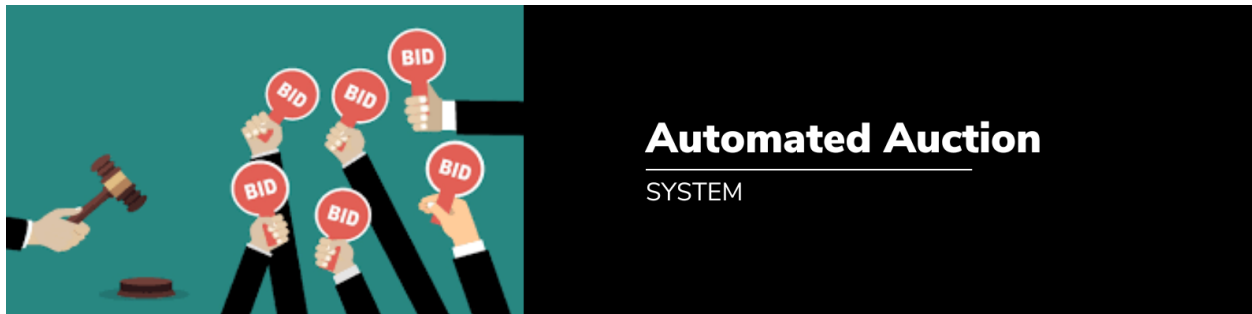




Automated Auction System



Problem Description:

An automated Auction System is an Application Software that is used for the buying and selling of products. This software can be used by the auction companies who arrange the Auction. Various buyers and sellers are registered in the Auction company. Following are the lists of various users of the system and also the role of the users

Users of the System

1. Administrator
2. User (can buy and sell)

Administrator

Note: *Don't create a table to store the credentials of the administrator. Keep the username and password fixed for admin (like username: 'admin' password: 'admin')*

- Login & Logout
- Can see all users
- Can see all items to be sold
- Can see all items already sold
- Can see all items by category

- Can view all transactions
- Can view all transactions for a date range
- Can view transaction by transaction id
- Can see all refunded products for a date range

User

- Can register by providing username, first_name, last_name, address, mobile_no, password
- login his account
- Can update his personal details
- Can change the password
- Can add an item to sell by providing item_id, name, price, quantity, description, sold_status (0 for unsold, 1 for sold) and category (Can have only 4 possible values that are Clothing, Electronics, Grocery & Miscellaneous)
- Can update details of product to sell
- See all items available for sell
- Purchase an item (can't purchase the item added by himself)
- Can return a purchased good within 5 day of purchase
- See transaction history of purchases items
- See transaction history of sold items
- See transaction history of returned items
- logout his account
- delete his account

Note:

1. Please maintain relationships between transaction and user. one transaction has two users (buyer and seller) but a user can have any number of transactions

2. Kindly throw the appropriate exception for any invalid data entry like duplicate username, etc.
3. Always use the auto_increment column as the primary key and the same column should be a foreign key in another table. For username field, you can specify constraints to be sure that they should not be duplicates and must have a value.
4. In each table, create a field is_deleted of int type. If this field has a value of 1 means the record is considered deleted otherwise it should have a value of 0. You do not have to use a delete query to delete a record because deletion means here just setting the value of is_deleted 0. The records for which is_deleted is 1 they will never be visible to the user and admin i.e.; these records will remain idle in the database forever.
5. Kindly prepare ER-Diagram & database credentials must be read from the properties file do not put them in code.

Additional Features (Great to have but not compulsory)

- You can allow buyer and seller to raise dispute on a transaction such that apart from buyer and seller, admin can also make comment and give verdict on the same. The possible verdict can be "refund money to buyer but product to seller"/"no Refund".
- You can integrate GST on the final billing such that 5%, 7%, 9% and 12% GST is on Clothing, Electronics, Grocery & Miscellaneous respectively.