Project 1. Auction Database

SWE3003 Database Systems - Fall 2023

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  + CheckAccount()
* Functionality not implemented

: Every Functionality mentioned on the assignment document is implemented.

▶ E-R diagram

▷ database diagram

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▷ table

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▷ E-R diagram

A diagram of a flowchart

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▶ Functionality implemented

▷ OverView

* DDL
  + check category and condition
  + check price
  + trigger to update table when item is sold with B-I-N price
  + trigger to calculate commission
* LoginMenu()
  + Login when pw equals
  + When admin trys to login with LoginMenu stop the login and tells the user to use case 3(admin menu) to login
* SignupMenu()
  + Insert new id when id when there are no duplicate
* SellMenu()
  + Caculate the max itemid to use unique itemid every time adding a item
  + Insert a item using the information that is just entered by the user
* CheckSellStatus()
  + Print all the item I sell with the current bidder with the hightest bid price
* BuyItem()
  + Refresh billing table with items date expired
  + Print out items with user interest
  + Safety code to ensure only the item print out is able to buy
  + Buy the item with the choice and price
  + Print out if I am the highest bidder or I buy with B-I-N price
* AdminMenu()
  + Refresh billing table with items date expired
  + Check login id pw and also if the user is administer and if so accept login
  + Print sold Items per category
  + Print Account balance for seller
  + Print seller ranking
  + Print buyer ranking
* CheckBuyStatus()
  + Refresh billing table with items date expired
  + Check the status of the item the current buyer is bidding on
* CheckAccount()
  + Refresh billing table with items date expired
  + Check the current user sold item status and balance
  + Check the current user purchased item status and balance

▷ DDL

* check category and condition

check category and condition when inserting item with check() statement

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* check price

every price in the relationship is checked to be greater then 0

A computer screen shot of text

Description automatically generated

* trigger to update table when item is sold with B-I-N price

when new biding is inserted this trigger checks if the new bidding price is higher than B-I-N price. And when greater it means that the buyer will purchase the item with B-I-N price so the trigger update the item to be sold and insert a new billing information.

A screen shot of a computer program

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* trigger to calculate commission

Every time a new data is inserted in billing table this trigger automatically calculate purchase price and distribute it into commission and seller money.

A screen shot of a computer program

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▷ LoginMenu()

* Login when pw equals

A computer screen shot of a program code

Description automatically generated

* When admin trys to login with LoginMenu stop the login and tells the user to use case 3(admin menu) to login

A computer screen shot of a program code

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▷ SignupMenu()

* Insert new id when id when there are no duplicate

A computer screen shot of a program code

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▷ SellMenu()

* Caculate the max itemid to use unique itemid every time adding a item

I already define itemid to serially increment in DDL but because of the trigger that manipulate the items table when the item is sold, “serial” starts to make some error so I check every time inserting a new item to be sure the itemid that I will insert has no duplicate.

A screen shot of a computer program

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* Insert a item using the information that is just entered by the user

A screen shot of a computer program

Description automatically generated

▷ CheckSellStatus()

* Print all the item I sell with the current bidder with the hightest bid price

A screen shot of a computer program

Description automatically generated

▷ BuyItem()

* Refresh billing table with items date expired

Before user search for item items table need to be checked to ensure item’s date posted has passed. This code search the whole items table and change the item status with sold if date posted has passed and insert a billing data with the current highest bidder.

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A computer screen shot of a program code

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* Print out items with user interest

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* Safety code to ensure only the item print out is able to buy

After searching for a item user is interested. User enters a item id to buy that item. But there might be a situation in which user types a wrong item id. So this code add every item id which has been searched and checks the choice user made is included inside that list.



A computer screen shot of a program code

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Description automatically generated

* Buy the item with the choice and price

A computer screen shot of a program code

Description automatically generated

* Print out if I am the highest bidder or I buy with B-I-N price

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Description automatically generated

▷ AdminMenu()

* Refresh billing table with items date expired

Same functionality I explained in buy item function.

A computer screen shot of a program code

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* Check login id pw and also if the user is administer and if so accept login

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* Print sold Items per category

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* Print Account balance for seller

A screen shot of a computer program

Description automatically generated

* Print seller ranking

A screen shot of a computer program

Description automatically generated

* Print buyer ranking

A screen shot of a computer program

Description automatically generated

▷ CheckBuyStatus()

* Refresh billing table with items date expired

Same functionality I explained in buy item function.

A computer screen shot of a program code

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* Check the status of the item the current buyer is bidding on

Even if you are outbidded or the bid closing date has passed, all the items this user has bidded on must be displayed

A screenshot of a computer program

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▷CheckAccount()

* Refresh billing table with items date expired

Same functionality I explained in buy item function.

A computer screen shot of a program code

Description automatically generated

* Check the current user sold item status and balance

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Description automatically generated

* Check the current user purchased item status and balance

A screen shot of a computer program

Description automatically generated