**UB AUCTION for Books**

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**PROJECT OVERVIEW:**

Our main objective is to develop a standalone application to sell books online to end users. There are two main actors in this application. One is seller who sells the book through the application and the other is buyer who buys the book from the seller. The seller uploads the book details (title, description, author and price) into the application and sets an initial amount for biding along with a limited time period set. The buyer logs into the application and looks for the book needed and when a book is found he/she bids an amount a little higher than the actual price set. Through this way any number of user can bid for the book through the application and at the end of the time period set the user who has bid for the book with a maximum price gets the book. The seller then has to mail the books to the buyer in 10-15 business days.

**SOFTWARE REQUIREMENTS:**

**Application:** 2 tier Standalone application

**Programming Language:** C++

**DB:** ORACLE DBMS

**LIST OF MODULES IN PROJECT:**

**1). Login Module:**

The user logs into the application with a valid username and password. For a registered user the username is a unique userID that is generated whenever a user is registering to the application. Both the seller and buyer should have registered the following details in the application (name, address, state, country, sex, phone number and card details) in order to access the application and to buy/sell books.

**2). Registration Module:**

When the user logs into the application for the first time the following details are collected which includes (name, address, state, country, sex, DOB, phone number, card name, card number, expiration date, cvv, pin and password). Once the user is not registered in the application and tries to login to the application the user is taken to the registration page to enter the mandatory details needed to login into the application

**3). Display Available Books:**

Once the user logs into the application the user is taken to the list of available books page in the application. All the book details which has been uploaded by the seller is displayed in alphabetical order along with the following details(Book image(optional),Book title, Price, Time period set for the book biding).

**4). Detailed Description of the Book:**

Once the buyer selects the book from the list the buyer is displayed with the following details (Book image (optional), Book Title, Book description, Price and Time Period set for the book biding).

**5). Sell a Book:**

Once the user logs into the application the user is displayed with the list of available books. On that page there is an option called Sell Book. By selecting that user is taken to a page where he/she can upload the book details (Book image (optional), Book Title, Book description, Title, Initial Price for the book and the time period for the bidding to occur).

**6). Purchase a Book:**

Once the user logs into the application and founds the book he/she looking the user is navigated to the detailed book description page. On this page the book details along with the time period for biding and who and all has bid for the book so far gets displayed. The buyer can manually enter a bidding amount for the book and submit. Once the time period for the biding expires the person who has bidded for the book with the maximum amount gets the book. An email is sent to the buyer who has won the bidding and an email is sent to the seller notifying the buyer details and the book has to be delivered to the buyer in 10-15 business days.

**7). Update User Details:**

After login into the application the user is displayed with the list of available books. On that page there is a link to update the existing user details. On selecting that link the list of available information about the user is displayed on the screen and the user can do any modifications on those information and update in the system.

**8). Logout:**

On every page of the application there is option to Logout. On selecting that user is logged out of the application.

**LIST OF QUERIES USED IN PROJECT**

**1). Registration page:**

When the user registers in the application the user details (name, address, state, country, sex, DOB, phone number, card name, card number, expiration date, cvv, pin and password ) are saved in the user details table.

**A insert query is used to store the name, address, state, country, sex, DOB, phone number, card name, card number, expiration date, cvv, pin in the USERTABLE.**

Once the user details are added in the table a customer id is generated which is username + a number and updated in the table user details.

**Update USERTABLE set the UserID as (created ID) where the username is (username) and password is (password).**

**2). Login page:**

User logs into the application with their UserID and password. If a userID and password exists in the user details table the user is allowed access into the application.

Use select query to check if the userID and password exist in the table. If there is a row number fetched from the dB it shows the user has already registered in the application.

**Select UserID and password from the USERDETAILS TABLE where UserID is (created UserID) and password is (created password).**

**3). Display Available Books:**

To display all the book details (Book image(optional),Book title, Price, Time period set for the book biding) a select query is used to retrieve all the details which exists in the Books table.

**Select all from the BOOKSTABLE** will displays all the book related information.

**4). Detailed Description of the Book:**

To view all the detailed description of the selected book (Book image(optional), Book Title, Book description, Title, Price, Time Period set for the book biding, list of buyers who has bidded for the book and their biding price details) a select query is used as follow.

For each selected book there is a Book ID associated with which we can display the detailed description of the book.

**Select all from the DETAILEDBOOKSTABLE where BookID is (selected book)** in the application displays all the book related information and the buyers who have biding for the book so far.

**5). Sell a Book:**

When a seller tries to sell a book through the application the following details are gathered (Book image (optional), Book Title, Book description, Title, Initial Price for the book and the time period for the bidding to occur) and inserted in to the db table.

**Insert all the book details (Book image (optional), Book Title, Book description, Title, Initial Price for the book and the time period for the bidding to occur) into the BOOKSTABLE.**

Once an insert operation is done a book id is generated which a random number is starting from 001 and is incremented for each books added. This book id is a unique attribute value.

The BookID is updated into the BOOKSTABLE for the recently added book details.

**Update table BOOKSTABLE set the BookID as (generatedbookID) where the book added is (recently added book details)**

**6). Purchase a Book:**

Buyer finds the book needed and enters the biding amount. An entry is added into the **DETAILEDBOOKSTABLE** with the buyer details and the biding amount entered.

**Insert query is used to add the user details and their biding amount into the db associated with the selected BookID.**

**7). Update user details:**

In order to update the user details an update query is used as follows

**Update details (name, address, state, country, sex, DOB, phone number, card name, card number, expiration date, cvv, pin, password) where username is the generated UserID.**

**ASSUMPTIONS:**

* Both buyer and seller should be registered in the application and should have a unique userID and password.
* Once a user bids a value it cannot be changed by any other user to the lowest price than the bid value.
* Confirmation mail is sent to the buyer who has won the bidding and a confirmation mail is sent to the seller including the buyer details.
* The seller has to mail the books to the buyer in 10-15 business days.