CMPS 460
Spring 2009
Auction Website
Database Project

(Version 2 – Changes in bold and italics)

Project Description

You have been asked to create a database to manage a new website for auction listings. The system will provide the following features:

User Controls:

When a person visits the website, they should be able to either login with an existing username and password or register as a new user. Upon registration, a person should provide a username, password, real name, shipping address, phone number, birth date, email address, and credit card information (card type, card number, and expiration date) Additionally, the registration date and last activity of each user should be recorded.

From some form of control panel, users should be able to change their password, shipping address, phone number, email address, and payment data. They may also add a brief description and pick an image to represent themselves. Image uploading is not required, but it should be simulated entering a filename in the database and displaying the file on the local machine at that location.

Viewing a profile:

Users should be able to view a profile of any registered user. ***The profile will include the username, picture, description, and a listing of other users' feedback about them.***

Listing an item:

Registered users should be able to create an item listing, providing a title, description, end date & time, shipping cost, shipping method, ***starting price***, and category for the item. Once again, an image for the listing should be able to be chosen from several already on the website. Allowing for image uploading is not necessary.

Browsing auction listings:

Registered users should be able to browse auction listings by categories (Art, Books, Clothing, Collectibles, Electronics, Entertainment, Jewelry, Sporting Goods, Toys). Each item will be assigned to only one category. There should also be methods to sort a listing page by title, seller, time remaining, and current ***bid***.

Bidding on an item:

Registered users should be able to place a bid on any open listings. A history of all current and past bids and the users that placed them should be kept for all items listed.

Leaving feedback:

When a buyer wins an auction, they should have the option to leave feedback for the item's seller. The feedback should consist of a rating from 1 (bad) to 10 (good) and a short description. The seller should similarly be able to leave feedback for the buyer. The buyer and seller should be able to leave feedback once at any time after the listing becomes closed.

Notifications:

If a user logs in and an auction they participated in had closed since their last visit, the website should display a notification box on the home page. If they were the winning bidder or the seller, this notification should be shown every time the user loads the home page until they leave feedback for that auction. The ***notification*** box itself should include the form for a user to leave feedback.

Also, the website should notify any users that are outbid in an auction in a similar manner. The notification should persist until either the auction ends or until the user chooses to remove the message.

All notifications should be displayed at the same time on the home page, with the most recent appearing closest to the top.

Admin Controls:

There should be a method by which an administrator control panel can be accessed for testing purposes. From there, a user should be able to view, edit, and delete any entity within the database.

Time:

The website's time does not have to advance on its own. A method to advance the time by minutes, hours, and days should be made available for testing purposes at the top of every page of the website. ***This will be accomplished by using 3 integer dialog boxes. Ex: 2 1 1 means 1 minute, 1 hour, 2 days ahead of the current date/time. For simplicity, time begins at day 0, hour 0, minute 0.***

System Requirements

Your system will be responsible for creating and maintaining the database. This includes the ability to add, change, and delete all data in the database (taking into account referential integrity). At a minimum, your system will include the following capabilities:

- Display screens for all data in the database.
- Add, change, and delete a registered user.
- Add, change, and delete an auction listing.
- Add, change, and delete a bid.
- Add, change, and delete feedback.
- Display a registered user's profile.
- Display a sortable list of auction items.
- Display an auction listing.
- Display a bid history for a particular auction
- Display a bid history for a particular user.
- Display feedback for a registered user.
- ***Display the bid history for a registered user***

Constraints

Sellers may not bid on their own auctions.

Users may not outbid themselves if they are already the high bidder.

Users may not place bids lower than the current high bid.

Project Requirements

Your system will use the MySQL database and will be written in PHP and all interaction with the system will be via a web browser. All programs will be created and maintained in your cs4601 class account.

Demonstrations will be scheduled for the last week of classes. A signup sheet will be posted on my office door sometime in April. All group members are required to be present during the demonstration.

Each member of the group must be prepared to demonstrate his/her portion of the system. You are responsible for providing test data adequate to demonstrate all features of the system. Any feature of the system that cannot be proven to function correctly will be counted as inoperative. Under NO circumstances will I (or you) "logon" to MySQL during the demonstration. There must be test data in the database that will allow all features of the system to be demonstrated.

The moral is – be finished, have the necessary test data loaded in the database, be ready to demonstrate, and have your documentation with you.

Documentation

The following documentation is required and due at the demonstration:

- A document describing the architecture of the application. This includes the database design (ER diagram), the data dictionary, and the function of all PHP scripts and a description of the interaction between them.
- A user's guide with sufficient detail to enable a new user to understand and use the system.
- A printout of the final version of the PHP scripts. The code must be well structured and appropriately commented. Each script must include the author's name, the date, and a certification that the code is the work of the author.

Grading

Obviously, you will be graded on the extent to which your system conforms to the requirements. You will also be graded on consistency, error checking, spelling, grammar, and system design. Remember, all members of your group will receive the same grade on the project.

There will be no extensions given. All material is due at the beginning of the presentation.

Please note that any material of an offensive nature (by my standards) found in your project will result in a grade of 0 on the project for all group members.

ADDITIONAL PROJECT REQUIREMENTS FOR TEAMS WITH 5 MEMBERS

If your team has five members, you are required to add an **automatic bidding feature** to your auction website project.

It will be possible for a user to indicate that they wish to automatically bid on an item being auctioned. The user will input the item (the auction), the maximum amount to bid, and the increment (this is the amount over the current bid). When a new bid is entered for an item, the system will check for the existence of any autobids for that item.

If there is an autobid for the item:

- A check is made to see if the current bid plus the autobid increment is less than the maximum amount.
- If so, the autobid is made the current top bid for the item.
- If not, the owner of the autobid is sent notification that they have been outbid and the autobid is no longer active.

Autobids should be flagged as such in the history listings for both auctions and users.

Note that it is possible for there to be more than one autobid active for the same item at the same time (Hint: This situation won't last long).