

E-MarketPlace: Online Auction Game (OAG)

Introduction

Online auction is a new way for trade online and for an organization to interact with its market. It is a new phenomenon that has emerged in electronic markets. Using online auction mechanisms to buy and sell goods/services can reduce to low transaction cost. Auction sites like eBay, Amazon and OnSale provide users the unique ability to purchase anything including collectables, sports memorabilia, computers, toys, dolls, figures, coins, stamps, books, magazines, music and much more. An online auction is a process wherein the buyers will bid for a product/service posted by a seller. Basically it is an auction that occurs over the Internet. A "seller" places an item for sale on the web. The "bidders" send out bids for the item. The seller then accepts or rejects the bids. A transaction then follows. Online auction site provides a medium for the sellers and buyers to participate in an auction electronically. The advantage to having an auction online is a huge expansion in the number of auction participants. According to the industry analysts, online auctioning is a very sound and viable business model. It is an approach to business that has proven successful in finding customers, making sales, and getting better prices.

As many students have no experience of buying and selling products and services in online auction, it is a good opportunity for students to examine the nature of a competitive market environment. As a result, an Online Auction System (OAS) is designed and developed at PolyU to provide a platform for simulation of electronic marketplace with integration of e-banking service. A simulation game, Online Auction Game (OAG), using the OAS has been developed. Students are grouped into sellers and buyers while tutors are served as a bank administrator and auction site administrator. The architecture of the OAG is shown in Figure 1.

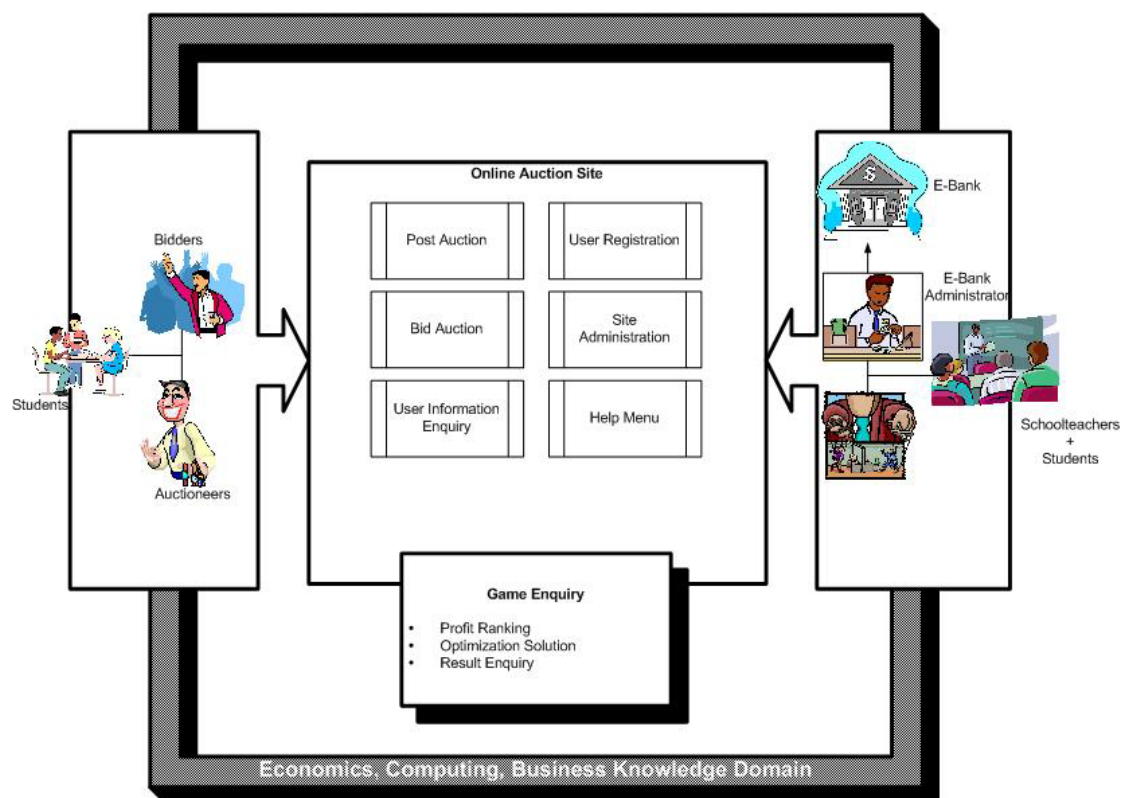


Figure 1: Architecture of Online Auction Game

Objectives of Online Auction Game

This Online Auction Game is simulation game provides the students to plan and implement an auction strategy through a “learning by doing” online auction simulation exercise. It requires students to obtain materials to form CD Chain Stores through a competitive auction and use these materials to maximize CD Chain Stores formation. The nature of the auction with dynamic environment forces students to interact in a competitive market and learn the reaction to the changes in the bidding process.

User Guides

Online Auction Site

OAS works as an intermediary or broker and provides an online platform to all market participants (buyers and sellers) for purchase and sales products/services.

Following are the steps using OAS.

- A member who wants to make use of OAS must first login the system using his/her username and password.
- If you don't have an account in OAS. Please click “Register now” to create a new account (Please refer to *New User Registration* section on P.3).
- Once log in, seller may start a new auction (refer to *Post New Auction* section on P.3) or buyer can bid the auctions (refer to *Bidding* section on P.5), and view user/auction information in their control panel (refer to *Your control panel* section on P.6)
- User can search the auction by using the search engine, browse the auction according to their categories, or find a help topic under “Help” in OAS.
- Any user using OAS is allowed to browse the list of current auction but cannot bid or post the auction until they have logged to OAS.

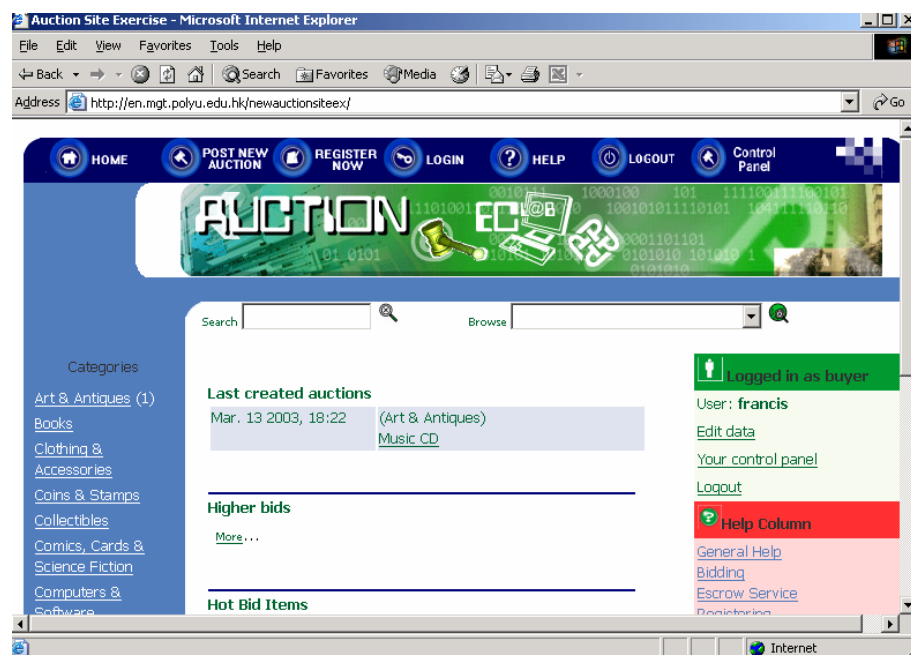


Figure 2: Auction Site Front-end

New User Registration – Any user interested in using the OAS must first register with the system by filling out a registration form (See Figure 3). Before register in OAS, user must create an ebank account first (please refer to ebanking service on P.8). All data field in the registration form are required including as ebank account, username, email, and etc. Once the registration process is completed, user will receive a registration confirmation notice to activate the member account of the OAS. Therefore, user must input a REAL email address preferred the PolyU email account. You will be assigned by your subject lecturer as a seller or buyer. You must indicate yourself as a buyer or seller in the USER REGISTRATION.

The screenshot shows a web browser window titled "Auction Site Exercise - Microsoft Internet Explorer". The address bar displays "http://en.mgt.polyu.edu.hk/newauctionsiteex/register.php?". The main content area is titled "New User Registration" and contains a form with the following fields and labels:

- All fields are required.**
- eBank Account:** Account ID: [text box], Password: [text box]
- Your name:** [text box]
- Company Name:** [text box]
- User Type:** [dropdown menu, currently showing "Buyer"]
- Type of business:** [dropdown menu, currently showing "Product"]
- Business Category:** [dropdown menu, currently showing "Accounting/ Audit"]
- Company start year:** [text box] (please input as 19XX or 20XX)
- Username:** [text box] (min 6 chars)
- Password:** [text box] (min 6 chars)
- Please, repeat your password:** [text box]
- Your e-mail address:** [text box]
- Birthdate:** [text box]

Figure 3: New User Registration

Post New Auction – To sell an item over the Internet an auctioneer must set-up his auction. The auctioneer needs to give a description of the product and decide the auction type (English auction/ Dutch Auction). For sellers, they can upload pictures of the item to the OAS. Sellers may also be required to set bid minimum, the time and date of the auction and auction rules. Sellers wanting to sell an item/service in OAS must fill out a form describing the item to be put up for auction. Required information includes a title, a detail description of the item, starting bid, auction duration, payment method, and etc. In addition, the type of auction to be used must be specified.

1. Click the link "Post New Auction" (Note: Only Sellers are allowed to post the auction)
2. An auction form is displayed as shown in Figure 4.
3. Select which predefined item you want to sell at the auction site. Noted that once you post the item at the auction site, the item fee will be charged in your VISA account.
4. Write down the detail description (HTML is allowed i.e. you can create HTML table or other effect in detail description)

5. You can either upload the item image or the URL of the image.
6. Choose Auction Type in the pull down menu. There are two selling auction type can be chosen, which is English Auction and Dutch Auction. Also, you can select Buy It Now type to let other users to buy your item/service immediately without waiting the closing date.
7. Click the “Sealed?” checkbox if you want to hold a sealed-bid auction.
8. Input items quantity.
9. Set the starting bid and reserve price.
10. Set the bid increment either using the built-in proportional increments table (set by administrator) or customer fixed increment.
11. Select the auction duration, payment method, which category belongs to the item, and items available days.
12. Click “Submit Query” button to create the new auction.
13. Check all information that is correct and input your password to confirm adding a new auction to OAS.
14. Once the form has been submitted successfully, the system starts the auction and inserts it into the list of current auctions.

Notices: Terms in Auction Form

English Auction: Bidders continuously raise their bids during the auction process until only one bidder with the highest price remains. The one who offers the highest price wins and pays at the bidden price.

Dutch Auction: It is used to sale multiple quantities of the same item. They allow sellers to sell the same product in various quantities as one single lot in an auction. With a Dutch Auction the items do not have to be listed separately saving time. If there are multiple buyers bidding on various quantities in a lot the highest bidders are the ones that get first service. The highest bidders' request for their quantities will be honored, while quantities last. In other words, the lowest winning bidder may not get the quantity they wanted. For example, a seller post a Dutch auction with 5 quantity(Q) each of them with starting bid \$1. Bidder 1 requests 2Q @\$1, Bidder 2 requests 1Q @\$1, Bidder 3 requests 2Q @\$2. The winner list will be: Bidder 3 gets 2 items 2Q @\$2, Bidder 1 gets 2Q @\$1, and Bidder 2 gets 1Q @\$1.
(you may NOT set a reserve price, nor may you set a custom increment amount.)

Reserve price: A reserve price is set by a seller who will not sell below a certain price. Bidders know there's a reserve price, but they do not know what it is. In order to win the auction, a bidder must meet or exceed the reserve price and have the highest bid.

Buy It Now: This is an exciting optional enhancement to the traditional auction format. Sellers name a price at which they would be willing to sell their item to any buyer who is willing to pay that price. The listing will be run as a normal auction, but will also feature a Buy It Now price. Buyers will have the option to buy the item instantly without waiting for the listing to end.
(Reserve price is not available in Buy It Now and please place your Buy It Now price in the text box of “Auction Start with”)

Post new auction

Submit

Item title: CD \$50.00 (0, 10)

Item description (HTML allowed):

URL of picture (optional):

Or select the image you want to upload (optional):

Note

If 'DUTCH AUCTION', you may NOT set a reserve price, nor may you set a custom increment amount.
 If 'BUY IT NOW AUCTION', you may NOT set a reserve price, and the 'Auction starts' amount is the PRICE.
 If 'REVERSE AUCTION', you may NOT set a reserve price, nor may you set a custom decrement amount.

Auction's type: Standard Auction

Items quantity: 1

Auction starts with:

Figure 4: Post New Auction

Bidding Auction— Knowing how and when to place a bid is essential for the buyers in an auction. Since an auction is essentially a request for offers. Buyers should know the rules pertaining to what, where, when and how they can bid or else end up paying more than expected for an item. While browsing the list of current auctions, a member can decide to participate in one or several of them. To bid on an item, a member simply enters the amount of the bid. The following are the bidding process in OAS.

1. Select an auction you want to place a bid.
2. Detail information of the auction is displayed as shown in Figure 5.
3. Input the item quantity and the amount of bid in the form side (See Figure 5).
4. Choose the bidding type. There are two bidding type, Normal and Proxy Bidding, in OAS. Normal bidding refers to traditional bidding while proxy bidding means when you place a bid enter the maximum amount you are willing to pay for that item. This amount will always be kept secret. Whenever someone else places a bid, OAS will automatically enter the lowest possible bid for you, up to your maximum bid, until you are the winning bidder. At the end of an auction, if you are the high bidder, you are the winner. As the winner of the auction, you only pay the lowest possible winning bid, not necessarily your maximum bid.
5. Meanwhile, you can rate the seller or buyer by clicking their name, view the bidding history and send an email to tell this auction to your friend by clicking

the link “view history” and “send this auction to a friend” at the top of the auction title respectively.

6. Click “GO!” button and enter your password to confirm the bid.
7. Please note that you must have enough VISA credit in order to bid the items.

Control Panel – Once the users login OAS, they can view their auction history, bidding summary, transaction history, update user information or invoice lists and etc in the user control panel (See Figure 6). Detail of each function in the control panel are discussed as follows:

- **Your Auctions:** Display current or closed auction that are posted by you. Also you can edit/change your posted item if that the item has not yet bidden by other buyers.
- **Your Bids:** Display current or completed bids that are placed by you.
- **Edit Your Personal Profile:** Update your own information such as password or address.
- **Invoice List:** Show the invoice that issued by the OAS
- **Logout:** Logout OAS. Remember each time leave OAS, please click logout in your control panel or in the main page.
- **Send Compliant Email to Site Administrator:** You can send an email to compliant about the Website performance, design, company’s confidential, comment about OAS and others.
- **Send Email to other site users:** You can send an email to other user in OAS by inputting his/her username.

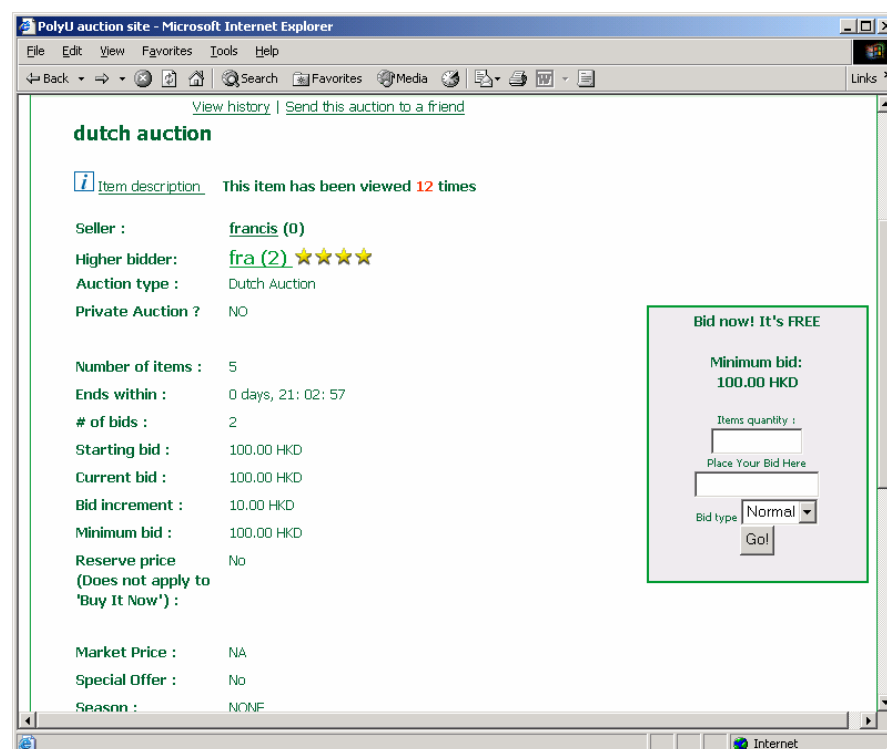


Figure 5: Bidding Auction

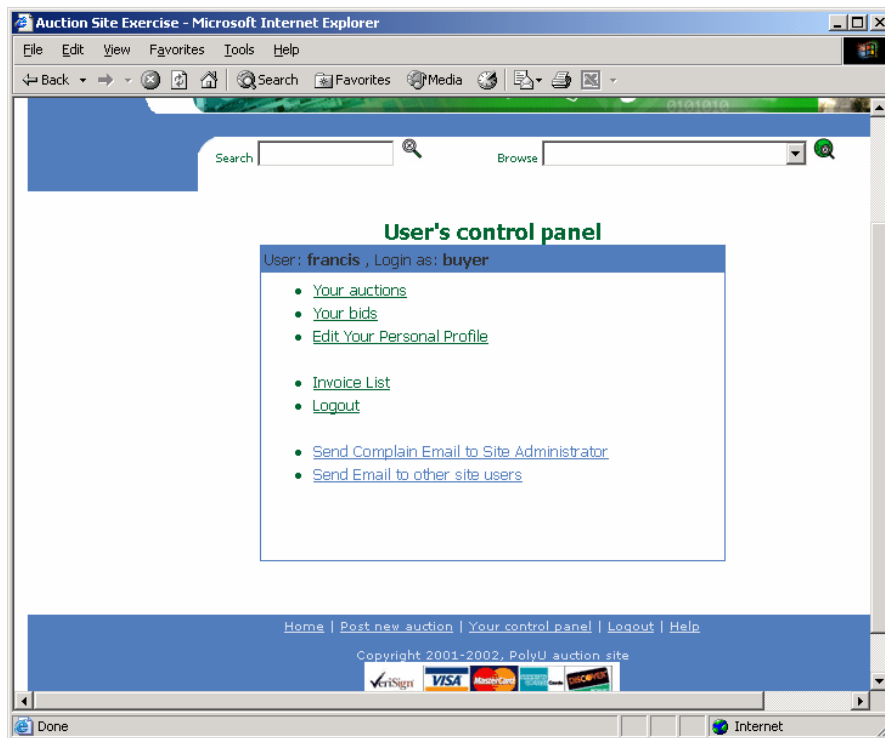


Figure 6: User Control Panel

E-Banking

An e-bank system is designed and developed for the user to manage their assets. All transaction in the auction site will be shown in your e-bank account. Before you start to play the auction game, you need to create an e-bank account. Once register successfully, a saving account and VISA account will be created. Initial capital is assigned in your saving account and a default VISA credit limit is also set up in the VISA account.

URL for the E-Bank

Group A: <https://en.mgt.polyu.edu.hk/ebankA>

Group B: <https://en.mgt.polyu.edu.hk/ebankB>

Register

1. Login the e-bank if you have account already. Otherwise, click “New User Registration”.
2. In the register page, please input your student id, name, email, and password.
3. If login successfully, your login ID will be 300 + student ID. (e.g. student id = 00123456d, then your ebank account number i.e. login id will be 30000123456d)

E-banking Services

There are eight functions in the upper menu when you successfully login to your e-bank account. They are:

- Saving account – Display all transaction within the saving account.
- VISA account – Show all transaction that using VISA card. Before the due day of the payment, click the check box “Pay” to pay the VISA charge from your saving account. In order to return to the default VISA credit limit, you should pay the VISA payment from your saving account.
- Money Transfer – Transfer money to other bank account (You do not allow to transfer money to other bank account).
- Loan – Each user can have a maximum loan of 50% saving account (In this game, e-bank does not accept any loan application).
- Change Password – Change your login password
- Change Email – Change your email
- Logout – logout system
- FAQ – Frequency Ask Questions.

Game Enquiry System (GES)

After the game period (i.e. for posting & bidding auction), you can use the Game Enquiry System to enquire your result. For the auctioneer (i.e. seller), you can find your profit in this system and your ranking between your competitors. For the bidder (i.e. buyer), the system will show all your winning items from the auction site. Based on these items, you need to arrange and combine an optimal solution. Following are the instructions for using the game enquiry system.

URL of Game Enquiry System

<http://en.mgt.polyu.edu.hk/oasresultA> for Group A

<http://en.mgt.polyu.edu.hk/oasresultB> for Group B

Instructions (Seller)

- Login the system using the ID and password (ID and password are same as the auction site)
- You can see your Profit/Loss in the GES (See Figure 7).
- Also, you can find those auction items that cannot successfully sell or currently posting on the OAS.
- The right hand side menu shows the current ranking of the seller in the game (See Figure 7).

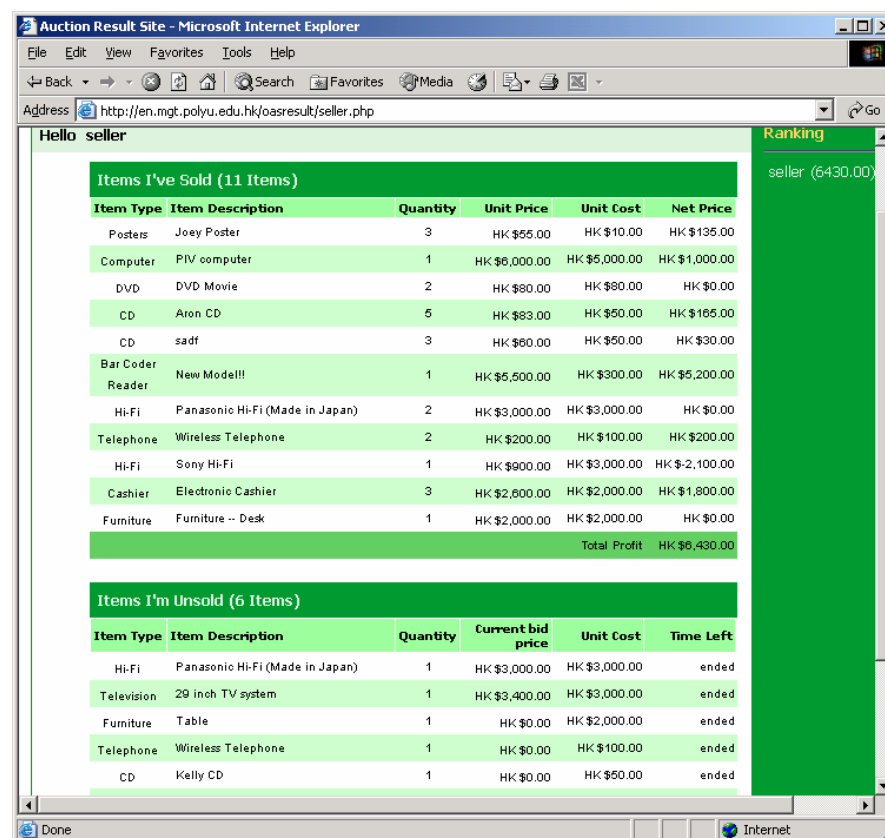


Figure 7: Game Enquiry System (Seller)

Instructions (Buyer)

- Login the system using the ID and password (ID and password are same as the auction site)
- Under “Item(s) I’ve bidden”, you can find all the items that you won from the auction site (See Figure 8).
- Under “I’ve following plan(s) to form CD chain store”, this section shows all the plans that you form from the wining items (See Figure 9).
- Under “Required plan(s) for form CD chain store”, this section displays the formation requirement of each plan (See Figure 10). In this case, there are three plans you can form. Please refer the buyer Assignment sheet for the requirement in each plan.
- The right hand side menu shows the current ranking of the buyer in the game.

How to form a plan

- At the section “Item(s) I’ve bidden”, click the checkbox with the selected items that you want to add to the plan.
- Specify the quantity to add into the plan. You must add exactly quantity to meet the required plan.
- For example, based on the requirement to form plan A, I need to select all necessary item and quantity in item(s) I’ve bidden”. Then select PLAN A at the pull down menu. Click Add Button, Plan A will be formed and corresponding points will be generated.

How to combine a plan

- Since a bonus mark would be given if you can combine a plan (e.g. Plan A + Plan B + Plan C), you can combine the plan under the “I’ve following plan(s) to form CD chain store”.
- Select the plan that you want to combine by click the checkbox of the plan.
- Select Combine at the radio button and Click Go.
- The plan you select will be combined to form a Combo plan and corresponding points will be generated.
- If you want to remove this combination or specific plan, you can click the checkbox of the combined plan or specific plan, and then select Delete at the radio button and Click Go. The selected plan will be removed.

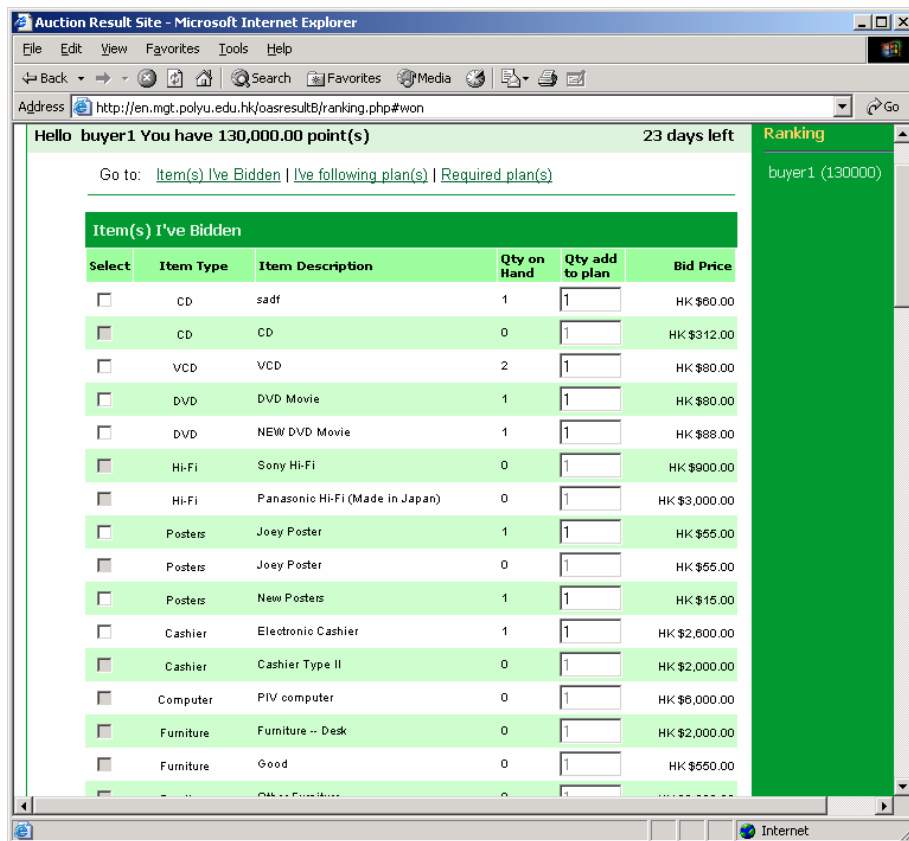


Figure 8: GES (Buyer: Item(s) I've Bidden)

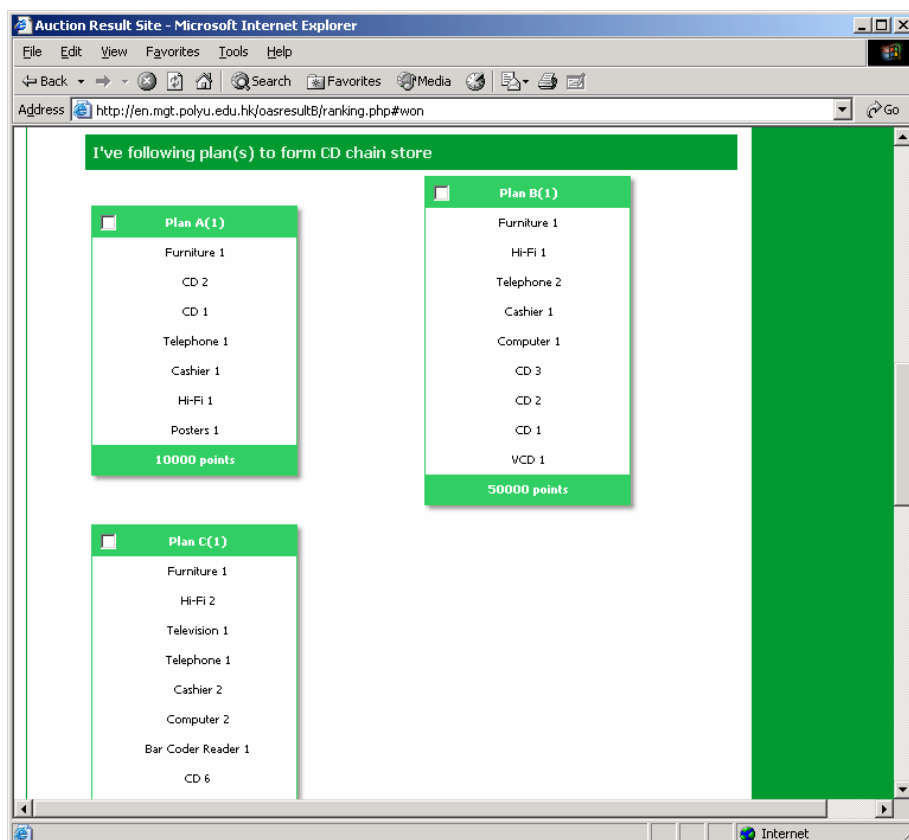


Figure 9: GES (Buyer: I've following plan(s) to form CD chain store)

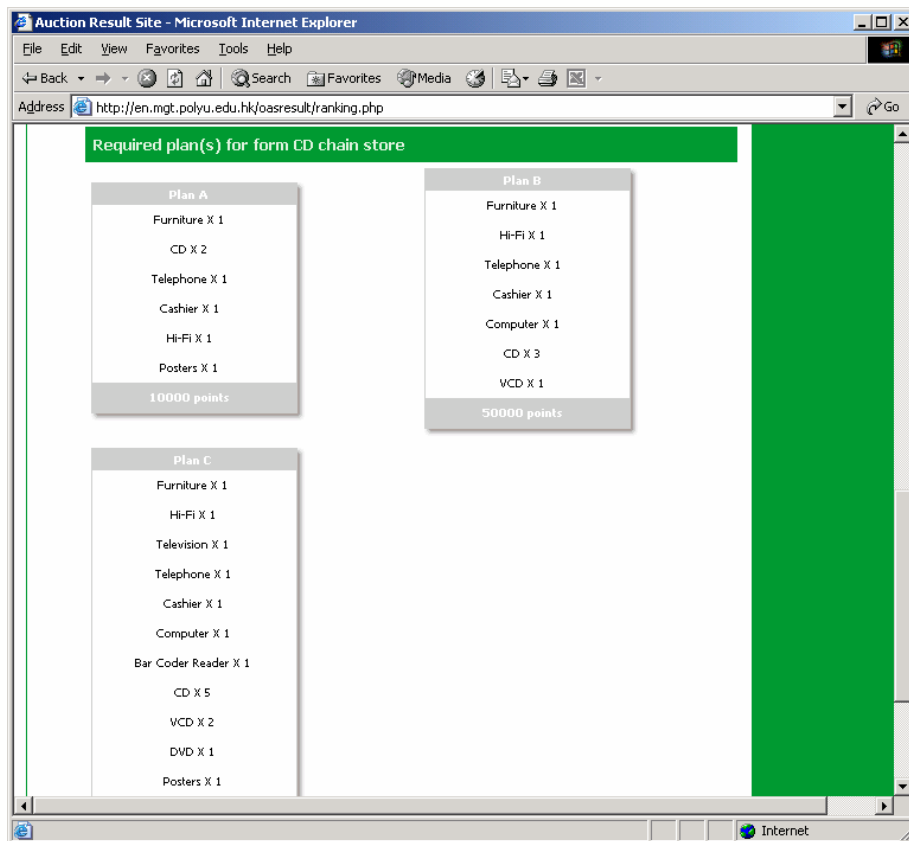


Figure 10: GES (Buyer: Required plan(s) for form CD chain store)

Summary of the Game

1. E-Bank Registration

First, you need to register with an ebank account. Please go to:

<https://en.mgt.polyu.edu.hk/ebankA> for Group A

<https://en.mgt.polyu.edu.hk/ebankB> for Group B

Our game admin will give you an initial capital to your saving account. And you will also have a new VISA account. After that you need to visit the auction site to register your auction account.

2. Auction Site Registration

Second, you need to register with an auction site account. Please go to:

<http://en.mgt.polyu.edu.hk/auctiongameA> for Group A

<https://en.mgt.polyu.edu.hk/auctiongameB> for Group B

In registration page in the auction site, you are required to enter your ebank account information because it makes the further transaction become simpler and convenience. So you don't need to input your credit card number every time when you make your payment. However, in real case, you need to input your credit card number & expire date every time when you make your payment. If you are assigned as a seller, you must select the **seller** in the field of **user type**. On the other hand, if you are a buyer, you must select the **buyer** in the field of **user type**.

3. Posting and Bidding Auction

If you are a seller, please refer to 3.1, otherwise go to 3.2

3.1 Posting Auction

As a seller, you can purchase stock from the merchant, Mr. Chan. You just need to select the item from the Item List when you post a new bid. After you post the bid, you will find that your ebank's VISA account will appear a "Buying Stock" payment, you need to settle it before the due date. If you use up all your VISA credit limited, you should settle the payment before you continue purchasing stock to post it on the OAS. When an auction ends with winner(s) and you act as a seller, you will receive money transfer to your saving account from auction site. The amount will be deducted by service charge by the auction site. You cannot post any more items after the deadline of the game.

3.2 Biding Auction

As a buyer, you can search the auction site.

If you act as a buyer and win a bid, you will find a "Winning Bid" payment in your ebank's VISA account, you need to settle it before the due date. However, if your credit card limit is exceeded, our system will not allow you to place the bid. You should pay the VISA payment immediately in order to release the used VISA credit limit.

4. Result enquiry and Writing Report

Please go to:

<http://en.mgt.polyu.edu.hk/oasresultA> for Group A

<http://en.mgt.polyu.edu.hk/oasresultB> for Group B

to check your result. If you are seller, please refer to 4.1, otherwise go to 4.2

- 4.1 Seller can check the game result such as the current profit/loss in the game enquiry system (Refer to P.9 Game Enquiry System section for more details). Based on the result and report guideline (Refer to the Assignment Sheet), write a report and submit to your tutor on or before the deadline.
- 4.2 After login the Game Enquiry System, buyer can find all the items that won from the auction site. Based on these items, buyer should form as many CD store as you can (Refer to P.10 Game Enquiry System section “how to form a plan” and “how to combine a plan”).

Please refer to Figure 11 for the game flowchart.

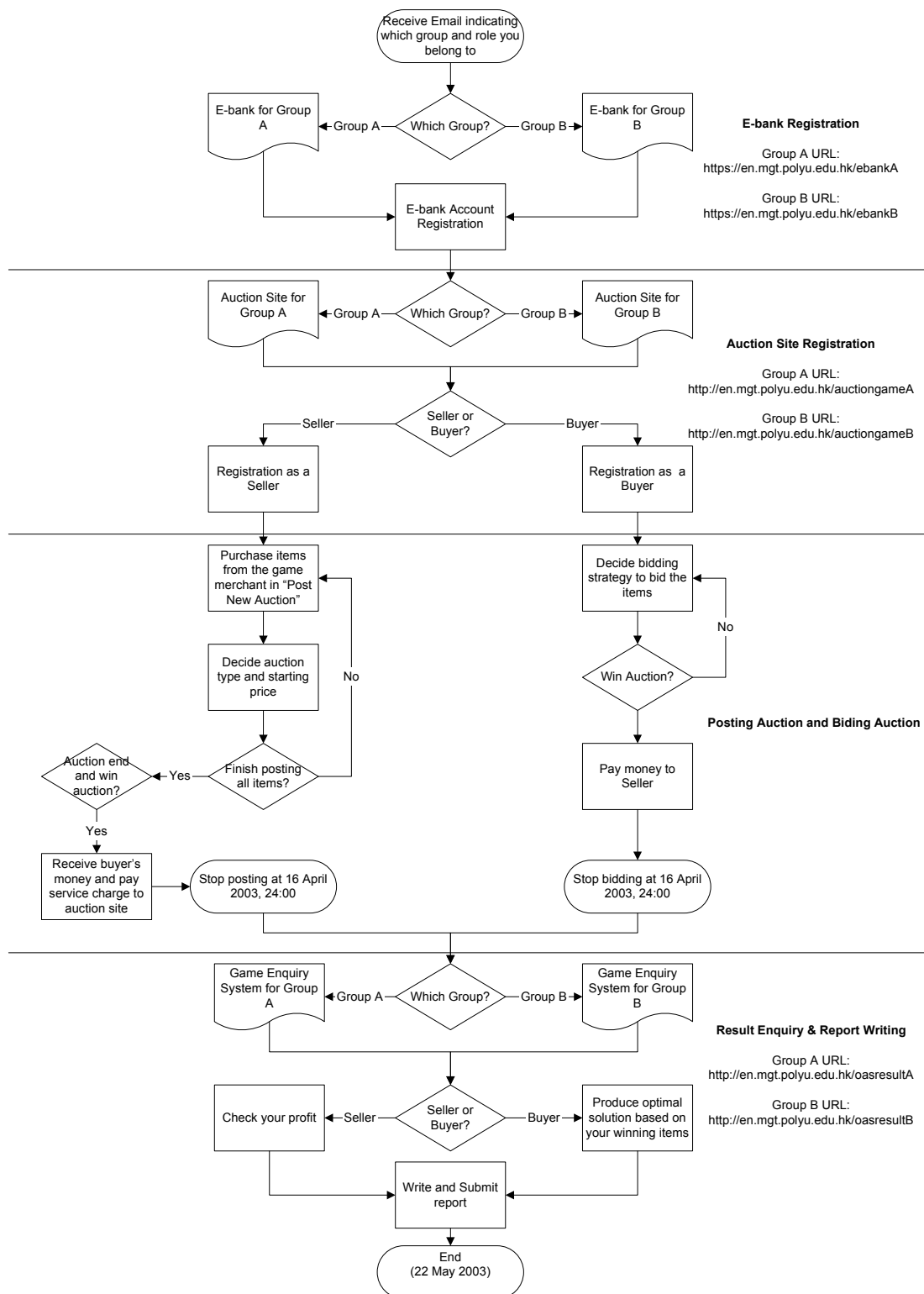


Figure 11: Game Flowchart