

Exercise two: due September 10, 2007

Ok the first exercise got you started. Now it's your turn to improve on the effort. This time you will work as two or three person teams.

In this exercise you will create a player of your own design. You shall begin by defining an interface and proceed to implement it. As before the players must keep track of the balance that they have. No player may issue a bid for a quantity greater than the player's current balance. Your player must be able to accept or reject a bid. If a player rejects a bid to another player the originating player must try again with another player. All players must keep track of accepted bids. If a player's bid is accepted, then a counter for accepted bids is incremented. Your design should have a common structure for all players and you should devise various players that implement a mechanism for generating a bid and accepting or rejecting a bid. Note that there is no specification for how you will exercise the players. You will need to devise a way to do this. You will need to determine some arrangement for the collection of players. The following is an illustration:

Player 1 issues a bid of 5 to player 3.
Player 3 accepts the bid and player 1 increments the accepted bid counter.
The next player, player 2 issues a bid of 3 to player 4.
Player 4 rejects the bid.
Player 2 issues a bid of 3 to player 1.
Player one accepts the bid and increments the accepted bid counter.

In developing your design you should engage the issue of having simple classes and methods while at the same time having flexibility. You should examine the following constructions array lists, iterators, abstract classes, interfaces, inheritance and decision structures. You should have at least two packages: one for the player code and one for the exercising code.

When you deliver the code that you will need to supply full javadoc documentation. Additionally, you will need to submit a report. The outline of the report follows.

Report outline.

Identification

Name of the project

Your names

Date

Project description

A single short paragraph describing the project

Requirements

A list of the requirements. You will test against these

Design description

A description of your design that indicates what the significant parts are and how they interact

Testing

Indicate how you determined that the requirements were satisfied.

Discussion

Describe your results and any improvements that might want to make.