

Description d'une partie d'un système d'enchères :

1 Your team has been given the responsibility to develop an online auction
2 system that allows people to negotiate over the buying and selling of goods in
3 the form of English-style auctions (over the Internet). The company owners
4 want to rival the Internet auctioning sites, such as eBay and uBid. The inno-
5 vation with this system is that it guarantees bid placed are solvent, making
6 for a more serious marketplace.

7 All potential users of the system must first enroll with the system; once
8 enrolled they have to log on to the system for each session. Then, they are
9 able to sell, buy, or browse the auctions available on the system. Customers
10 have credit with the system that is used as security on each and every bid.
11 Customers can increase their credit by asking the system to debit a certain
12 amount from their credit card.

13 A customer that wishes to sell initiates an auction by informing the system
14 of the goods to auction with the minimum bid price and reserve price for the
15 goods, the start period of the auction, and the duration of the auction, e.g.,
16 30 days. The seller has the right to cancel the auction as long as the auction's
17 start date has not been passed, i.e., the auction has not already started.

18 Customers that wish to follow an auction must first join the auction. Note
19 that it is only possible to join an active auction. Once a customer has joined
20 the auction, (s)he may make a bid, or post a message on the auction's bulletin
21 board (visible to the seller and all customers who are currently participants
22 in the auction). A bid is valid if it is over the minimum bid increment, and if
23 the bidder has sufficient funds, i.e., the customer's credit with the system is at
24 least as high as the sum of all pending bids. Bidders are allowed to place their
25 bids until the auction closes, and place bids across as many auctions as they
26 please. Once an auction closes, the system calculates whether the highest bid
27 meets the reserve price given by the seller, and if so, the system deposits the
28 highest bid price minus the commission taken for the auction service into the
29 credit of the seller (credit internal with the system).

30 The auction system is highly concurrent-clients bidding against each other
31 in parallel, and a client placing bids at different auctions and increasing his/her
32 credit in parallel.