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CSC 401

Project 1 README

Running the Program

To run the auction server, type the following:

```
python3 auc_server.py <server port number>
```

To run the auction client, type the following:

```
python3 auc_client.py 127.0.0.1 <server port number>
```

Follow the prompts and type into the clients to send auction requests/bids.

Screenshots

Starting auctioneer server on port 12345:

```
mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$ python3 auc_server.py 12345
Auctioneer is ready for hosting auctions!
```

Connecting the first client (seller) to the server on port 12345:

```
mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$ python3 auc_client.py 127.0.0.1 12345
Connected to the Auctioneer server.
Your role is: [Seller]
Please submit auction request:
```

Server when seller connects:

```
mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$ python3 auc_server.py 12345
Auctioneer is ready for hosting auctions!
New client thread spawned
```

Connecting a second client to the server while still waiting for seller:

```
mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$ python3 auc_client.py 127.0.0.1 12345
Server busy!

mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$
```

Seller client submitting an invalid auction request:

```
mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$ python3 auc_client.py 127.0.0.1 12345
Connected to the Auctioneer server.

Your role is: [Seller]

Please submit auction request:

not a, real auction, request
Server: invalid auction request.

```

Seller client when submitting a valid auction request:

```
Please submit auction request:

2, 2, 2, apple
Auction request received: 2, 2, 2, apple

Waiting for buyers...
```

Server status being changed to waiting for buyer once auction request submitted:

```
Setting server status to WAITING_FOR_BUYER
Server status set to WAITING_FOR_BUYER
```

Connecting another client (buyer) to the server:

```
mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$ python3 auc_client.py 127.0.0.1 12345
Waiting for buyers...
Connected to the Auctioneer server.

Your role is: [Buyer]
```

Connecting a second buyer client to the server. Two were required by this auction, so the bidding starts:

```
mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$ python3 auc_client.py 127.0.0.1 12345
Connected to the Auctioneer server.
Your role is: [Buyer]

Bidding start!
```

Submitting an invalid bid on the first client:

```
Bidding start!

numbers?
Invalid bid. Please submit a positive integer!
```

Submitting a bid on the first client:

```
Bidding start!

12
Bid received. Please wait...
```

First bid being received on server:

```
New client thread spawned
New client thread spawned
Bidding thread spawned
Bid recieved from bidder 0: 12
```

Second buyer bidding and winning the auction with second price:

```
Bidding start!

45
Bid received. Please wait...

You won the auction for "apple" and now owe a payment of $12.

mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$
```

First buyer losing the auction:

```
Unfortunately, you did not win the auction.

mgdzwonc@vm18-199:/afs/unity.ncsu.edu/users/m/mgdzwonc/csc401-project-1$
```

Seller being notified of the auction succeeding:

```
Bidding has started...

The item apple sold for $12.
```

Server resets for next auction:

```
Setting server status to WAITING_FOR_SELLER
Server status set to WAITING_FOR_SELLER
```