**CPR E 550: Distributed Auction Service using CORBA**

**Objective:** This project is intended to familiarize you with the tools and with the process of building and deploying a simple distributed CORBA-based application. This project implements a single item distributed auction server, where a seller can offer an item to be sold, and bidders can bid on the item. No other items are auctioned while the current auction is active. The auction server will keep track of the highest bidder and accordingly update the item price. At any point, the seller may decide to sell the item, in which case the auction server will be ready for another item to be auctioned by a seller.

**Block Diagram (Client Side):**

Seller

offer\_item : Only seller can call this option.

View\_high\_bidder: Only Seller can call this option.

View\_auction\_status: Both seller and client can call this option.

Bidder

bid: Only bidder can call this option

View\_bid\_status: To view if the bidder is the highest bidder or not. Only bidder can view this option.

Client : Bidder and Seller interact with each other.

Server: Maintains state information of the client

Files in The System files:

1. AuctionEnd.idl – This file generates a few other files that are used to implement the English Auction server. This is the auction idl file specified.
2. AuctionFun.java – This file implements the auction server function like offer an item for sale, selling the item, bidding, viewing the high bidder, viewing the bid status and the auction status by the appropriate member in this auction. It also maintains the state of the auction and creates new auction.
3. Server.java – This file contains the server implementation of the auction system.
4. Client.java – This file contains the client implementation of both the client and the server in a single file and the role can be interchanged any time. The file contains both seller and client.

Both the server and the client operate out of different folders and there is no unnecessary server components in the client side.

The entire system is built using the Eclipse IDE.