An Entity-Relationship diagram for an online auction system.

Entities and attributes:

- **Category**: ItemID, Name
- **User (Seller/Bidder)**: UserID, Rating, Location, Country
- **Bid**: Amount, Time, BidderID, ItemID
- **Item**: ItemID, Name, Currently, Buy Price, First Bid, Number_of_Bids, Description, Ends, Started, SellerID

Relationships:

- Category **Is Associated With** Item
- User **Sells** Item
- User **Places** Bid

Relational schema tables:

Bids	
PK, FK	**BidderID**
PK, FK	**ItemID**
PK	**Time**
	Amount

Items	
PK	**ItemID**
	Name
	Currently
	Buy_Price
	First_Bid
	Number_of_Bids
	Description
	Ends
	Started
	SellerID

Categories	
PK	**Name**
PK, FK	**ItemID**

Users	
PK	**UserID**
	Rating
	Location
	Country