

## CS564-Project-1

### **Project Team Members:**

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### **SCHEMA DEFINITIONS:**

- We have designed 5 tables - ITEMS, CATEGORY, BIDS, USERS, ITEMCATEGORYREL
- We broke the many to many relationship between Items and Category using Itemscategoryrel table.
- We introduced a new column bidId(primary key) to Bids table(weak entity) to avoid using all the attributes as primary key for performance reasons.

#### **Items (**

itemid INTEGER PRIMARY KEY,  
name VARCHAR(255),  
currently REAL,  
buyprice REAL,  
firstbid REAL,  
numberofbids INTEGER,  
started date,  
ends date,  
sellerid VARCHAR(255),  
description TEXT,  
FOREIGN KEY(sellerid) REFERENCES users(userid)

)

#### **Category (**

categoryid INTEGER PRIMARY KEY,  
name VARCHAR(255)

)

#### **Bids(**

bidid INTEGER PRIMARY KEY,  
userid VARCHAR(255),  
time VARCHAR(255),  
amount REAL,  
itemid INTEGER,  
FOREIGN KEY(userid) REFERENCES users(userid),  
FOREIGN KEY(itemid) REFERENCES items(itemid)

)

### Users (

userid VARCHAR(255) PRIMARY KEY,  
rating INTEGER,  
location VARCHAR(255),  
country VARCHAR(255),  
isseller BOOLEAN,  
isbidder BOOLEAN)

### Itemscategoryrel (

itemid INTEGER,  
categoryid INTEGER,  
PRIMARY KEY (itemid, categoryid),  
FOREIGN KEY(itemid) REFERENCES items(itemid),  
FOREIGN KEY(categoryid) REFERENCES category(categoryid)

)

### ER DIAGRAM

