



AuctionBase Project - ER Diagram

Relational Schema

1. Table – AuctionUser

AuctionUser (UserID: *text*, Rating: *int*, Location: *text*, Country: *text*)

Primary Key – UserID

SQL Query to create table -

```
CREATE TABLE AuctionUser (  
    UserID TEXT PRIMARY KEY,  
    Rating INT,  
    Location TEXT,  
    Country TEXT  
);
```

2. Table – Items

Items (ItemID: *int*, Name: *text*, Currently: *float*, Buy_Price: *float*, First_Bid: *float*, Number_of_Bids: *int*, Start_Time: *datetime*, End_Time: *datetime*, Description: *text*, UserID: *text*)

Primary Key – ItemID

Foreign Key – UserID references UserID(AuctionUser)

SQL Query to create table –

```
CREATE TABLE Items (  
    ItemID INT PRIMARY KEY,  
    UserID TEXT,  
    Name TEXT,  
    Currently REAL,  
    Buy_Price REAL,  
    First_Bid REAL,  
    Number_of_Bids INT,  
    Start_Time DATETIME,  
    End_Time DATETIME,  
    Description TEXT,  
    FOREIGN KEY(UserID) REFERENCES UserID(AuctionUser)  
);
```

3. Table – Bid

Bid (ItemID: *int*, UserID: *text*, Time: *datetime*, Amount: *real*)

Primary Key(UserID,ItemID,Time)

Foreign Key(UserID) References UserID(AuctionUser)

Foreign Key(ItemID) References ItemID(Items).

SQL Query to create table –

```
CREATE TABLE Bid (  
    ItemID INT,  
    UserID TEXT,  
    Time DATETIME,  
    Amount REAL,  
    PRIMARY KEY(UserID,ItemID,Time),  
    FOREIGN KEY(UserID) REFERENCES UserID(AuctionUser),  
    FOREIGN KEY(ItemID) REFERENCES ItemID(Items)  
);
```

4. Table – Category

Category (ItemID: int, Category: text)

Primary key – (ItemID, Category)

Foreign Key(ItemID) References ItemID(Items)

SQL Query to create table –

```
CREATE TABLE Category (  
    ItemID INT,  
    Category TEXT,  
    PRIMARY KEY(ItemID,Category),  
    FOREIGN KEY(ItemID) REFERENCES ItemID(Items)  
);
```