

## Tables and Relationships

### 1. Users

- **UserID** (Primary Key)
- **Username**
- **Email**
- **PasswordHash**
- **Status** (Active, Terminated, Inactive)
- **AddressLine1**
- **AddressLine2**
- **City**
- **State**
- **PostalCode**
- **CountryID** (Foreign Key referencing Countries)
- **CreatedAt**

### 2. Countries

- **CountryID** (Primary Key)
- **CountryName**

### 3. Categories

- **CategoryID** (Primary Key)
- **CategoryName**
- **Description**

### 4. Items

- **ItemID** (Primary Key)
- **SellerID** (Foreign Key referencing Users)
- **CategoryID** (Foreign Key referencing Categories)
- **Title**
- **Description**
- **StartingPrice**
- **CurrentPrice**
- **StartDate**
- **EndDate**
- **ImageURL**
- **CreatedAt**

### 5. Bids

- **BidID** (Primary Key)
- **ItemID** (Foreign Key referencing Items)
- **UserID** (Foreign Key referencing Users)
- **BidAmount**
- **BidTime**

### 6. Orders

- **OrderID** (Primary Key)
- **BuyerID** (Foreign Key referencing Users)
- **ItemID** (Foreign Key referencing Items)
- **OrderDate**
- **TotalAmount**

### 7. Notifications

- **NotificationID** (Primary Key)
- **UserID** (Foreign Key referencing Users)
- **Message**
- **IsRead**
- **CreatedAt**

## Stored Procedures

### User Management

- **CreateUser**
  - Parameters: @Username, @Email, @PasswordHash, @Status, @AddressLine1, @AddressLine2, @City, @State, @PostalCode, @CountryID
  - Description: Inserts a new user into the **Users** table.
- **UpdateUserStatus**
  - Parameters: @UserID, @Status
  - Description: Updates the status of a user in the **Users** table.

### Item Management

- **CreateItem**
  - Parameters: @SellerID, @CategoryID, @Title, @Description, @StartingPrice, @CurrentPrice, @StartDate, @EndDate, @ImageURL
  - Description: Inserts a new item into the **Items** table.

### Bid Management

- **PlaceBid**
  - Parameters: @ItemID, @UserID, @BidAmount
  - Description: Inserts a new bid into the **Bids** table and updates the current price of the item.
- Retrieve all items along with their respective seller information.
- Retrieve all users along with their items, if they have any.
- Retrieve all users and their items, showing all users and all items, even if there is no match.

- Retrieve items with the number of bids each item has received.
- Retrieve users and the total amount they have spent on orders.
- Retrieve items along with their category names.