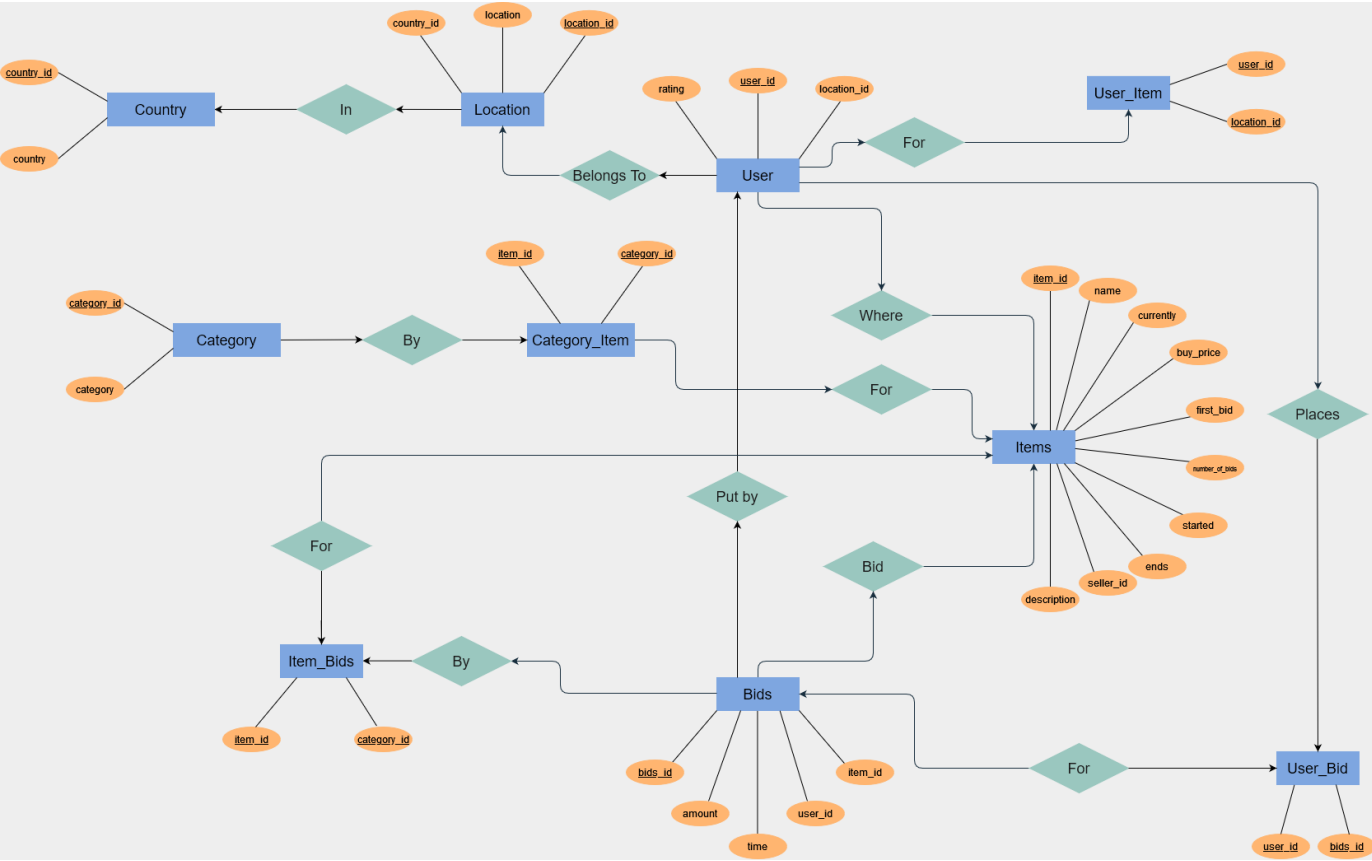
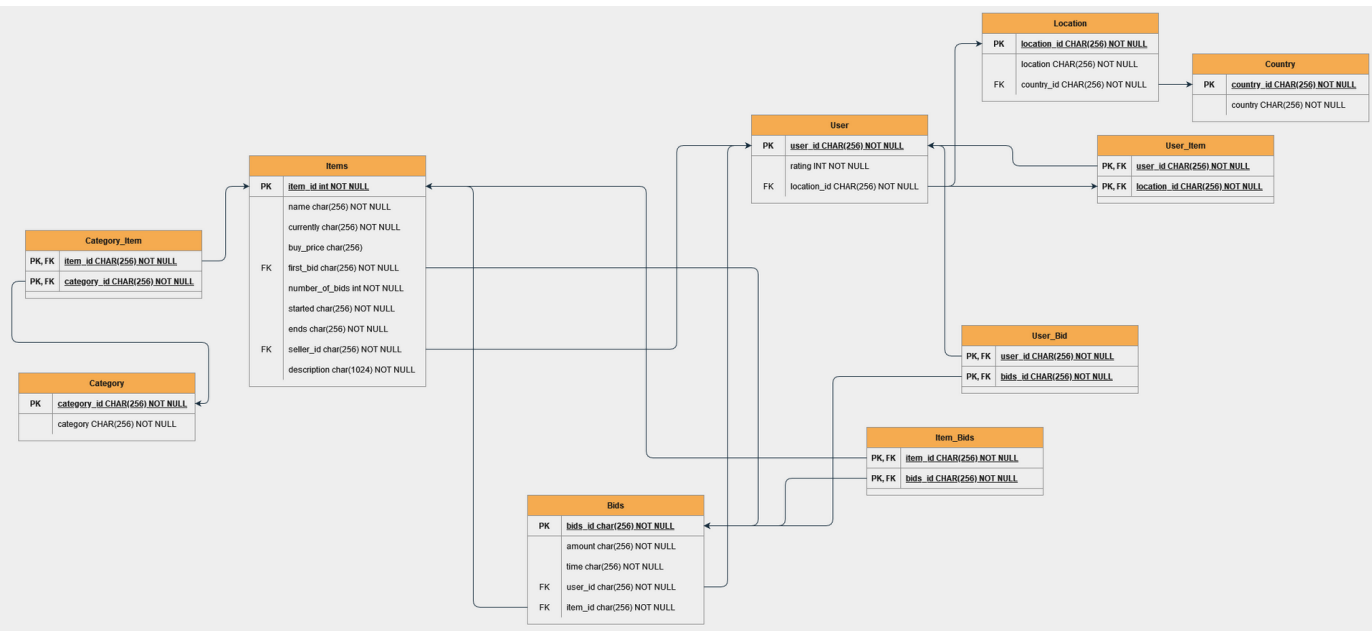


ER Model

Entity-Relation (ER) Diagram



Relational Schema Diagram



User

This is a user table where it includes all sellers and all bidders. It saves the information of the users such as rating and location id.

	USER	
PK	user_id	CHAR(256)
	rating	INT
FK	location_id	CHAR(256)

```
CREATE TABLE user (user_id CHAR(256) NOT NULL UNIQUE,  
                    rating INT NOT NULL,  
                    location_id CHAR(256),  
                    PRIMARY KEY(user_id),  
                    FOREIGN KEY(location_id) REFERENCES location(location_id));
```

User_Item

This is a user table where it includes all sellers that sells.

	USER_ITEM	
PK, FK	user_id	CHAR(256)
PK, FK	item_id	CHAR(256)

```
CREATE TABLE user_item (user_id CHAR(256) NOT NULL,  
                        item_id CHAR(256) NOT NULL,  
                        PRIMARY KEY(user_id, item_id),  
                        FOREIGN KEY(user_id) REFERENCES user(user_id),  
                        FOREIGN KEY(item_id) REFERENCES item(item_id));
```

User_Bid

This is a user table where it includes all sellers that bids.

	USER_BID	
PK, FK	user_id	CHAR(256)
PK, FK	bids_id	CHAR(256)

```
CREATE TABLE user_bid (user_id CHAR(256) NOT NULL,  
                       bids_id CHAR(256) NOT NULL,  
                       PRIMARY KEY(user_id, bids_id),  
                       FOREIGN KEY(user_id) REFERENCES user(user_id),  
                       FOREIGN KEY(bids_id) REFERENCES item(bids_id));
```

Location

This is a location table where it saves information on location and the country id.

	LOCATION	
PK	location_id	CHAR(256)
	location	CHAR(256)
FK	country_id	CHAR(256)

```
CREATE TABLE location (location_id CHAR(256) NOT NULL UNIQUE,  
                        location CHAR(256),  
                        country_id CHAR(256),  
                        PRIMARY KEY(location_id),  
                        FOREIGN KEY(country_id) REFERENCES country(country_id));
```

Country

This is a country table where it saves information regarding all the countries present.

	COUNTRY	
PK	country_id	CHAR(256)
	country	CHAR(256)

```
CREATE TABLE country (country_id CHAR(256) NOT NULL UNIQUE,  
                      country CHAR(256),  
                      PRIMARY KEY(country_id));
```

Item

This is an item table where it saves the information per item. It saves information such as name, currently, buy_price, first_bid

	ITEM	
PK	item_id	CHAR(256)
	name	CHAR(256)
	currently	CHAR(256)
	buy_price	CHAR(256)
FK	first_bid	CHAR(256)
	number_of_bids	INT

	ITEM	
	started	CHAR(256)
	ends	CHAR(256)
FK	seller_id	CHAR(256)
	description	CHAR(1000)

```
CREATE TABLE item (item_id CHAR(256) NOT NULL UNIQUE,
                    name CHAR(256),
                    currently CHAR(256),
                    buy_price CHAR(256),
                    first_bid CHAR(256),
                    number_of_bids INT,
                    started CHAR(256),
                    ends CHAR(256),
                    seller_id CHAR(256),
                    description CHAR(1000),
                    PRIMARY KEY (item_id),
                    FOREIGN KEY(first_bid) REFERENCES bids(bid_id),
                    FOREIGN KEY(seller_id) REFERENCES user(user_id));
```

Category

This is the category table which saves information about category id and category.

	CATEGORY	
PK	category_id	CHAR(256)
	category	CHAR(256)

```
CREATE TABLE category (category_id CHAR(256) NOT NULL UNIQUE,
                        category CHAR(256) NOT NULL,
                        PRIMARY KEY(category_id));
```

Category_Item

This is the category_item table which saves all of the categories from each item.

	CATEGORY_ITEM	
PK, FK	item_id	CHAR(256)
PK, FK	category_id	CHAR(256)

```
CREATE TABLE category_item (item_id CHAR(256),
                             category_id CHAR(256),
                             PRIMARY KEY(item_id, category_id));
```

Bids

This is the bids table that saves all of the information from one bid.

	BIDS	
PK	bids_id	CHAR(256)
	amount	CHAR(256)
	time	CHAR(256)
FK	user_id	CHAR(256)
FK	item_id	CHAR(256)

```
CREATE TABLE bids (bids_id CHAR(256) NOT NULL UNIQUE,
                    amount CHAR(256),
                    time CHAR(256),
                    user_id CHAR(256),
                    item_id CHAR(256),
                    PRIMARY KEY(bids_id),
                    FOREIGN KEY(user_id) REFERENCES user(user_id),
                    FOREIGN KEY(item_id) REFERENCES item(item_id));
```

Item_Bids

This is the item_bids table that saves all the bids information per item.

	ITEM_BIDS	
PK, FK	item_id	CHAR(256)
PK, FK	bids_id	CHAR(256)

```
CREATE TABLE bids (item_id CHAR(256) NOT NULL,
                    bids_id CHAR(256),
                    PRIMARY KEY(item_id, bids_id),
                    FOREIGN KEY(bids_id) REFERENCES bids(bids_id),
                    FOREIGN KEY(item_id) REFERENCES item(item_id));
```