

Database Systems

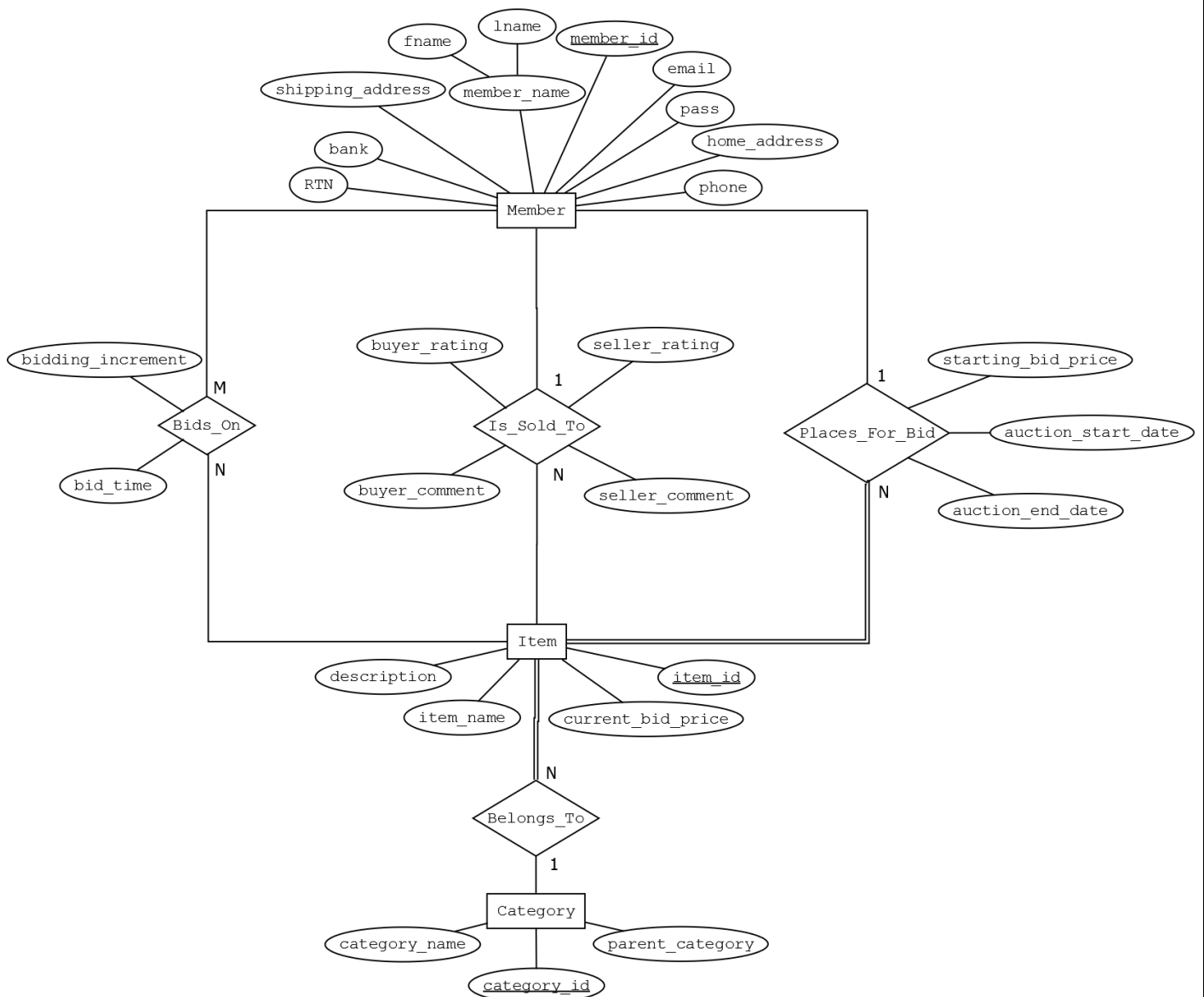
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Online Auction
Project

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ER DIAGRAM



RELATIONAL SCHEMA

Member

(member_id, email, pass, fname, lname, home_address, shipping_address, phone, bank, RTN)

Item

(item_id, item_name, description, current_bid_price, sold_to_id, buyer_rating, seller_rating, buyer_comment, seller_comment, placed_by_id, starting_bid_price, auction_start_date, auction_end_date, category_id)

Category

(category_id, category_name, parent_category)

Bid

(member_id, item_id, bid_time, bidding_increment)

DDL STATEMENTS

```
CREATE DATABASE Auction COLLATE latin7_general_ci;  
USE Auction;
```

```
CREATE TABLE Member  
(  
    member_id INT(10) AUTO_INCREMENT NOT NULL,  
    email VARCHAR(50) NOT NULL,  
    pass VARCHAR(50) NOT NULL,  
    fname VARCHAR(50) NOT NULL,  
    lname VARCHAR(50) NOT NULL,  
    home_address VARCHAR(255) DEFAULT NULL,  
    shipping_address VARCHAR(255) NOT NULL,  
    phone VARCHAR(20) DEFAULT NULL,  
    bank INT(12) NOT NULL,  
    rtn INT(9) NOT NULL,  
  
    PRIMARY KEY(member_id)  
);
```

```
CREATE TABLE Category  
(  
    category_id INT(10) AUTO_INCREMENT NOT NULL,  
    category_name VARCHAR(50) NOT NULL,  
    parent_category INT(10) DEFAULT NULL,  
  
    PRIMARY KEY(category_id),  
    FOREIGN KEY(parent_category) REFERENCES Category(category_id)  
);
```

```
CREATE TABLE Item
```

```
(
```

```
    item_id INT(10) AUTO_INCREMENT NOT NULL,  
    item_name VARCHAR(50) NOT NULL,  
    description VARCHAR(255) DEFAULT NULL,  
    sold_to_id INT(10) DEFAULT NULL,  
    buyer_rating INT(1) DEFAULT NULL,  
    seller_rating INT(1) DEFAULT NULL,  
    buyer_comment VARCHAR(255) DEFAULT NULL,  
    seller_comment VARCHAR(255) DEFAULT NULL,  
    placed_by_id INT(10) NOT NULL,  
    starting_bid_price FLOAT NOT NULL,  
    current_bid_price FLOAT NOT NULL,  
    auction_start_date DATETIME NOT NULL,  
    auction_end_date DATETIME NOT NULL,  
    category_id INT(10) NOT NULL,
```

```
    PRIMARY KEY(item_id),
```

```
    FOREIGN KEY(sold_to_id) REFERENCES Member(member_id),  
    FOREIGN KEY(placed_by_id) REFERENCES Member(member_id),  
    FOREIGN KEY(category_id) REFERENCES Category(category_id)
```

```
);
```

```
CREATE TABLE Bid
```

```
(
```

```
    member_id INT(10) NOT NULL,  
    item_id INT(10) NOT NULL,  
    bid_time DATETIME NOT NULL,  
    bidding_increment FLOAT NOT NULL,
```

```
    PRIMARY KEY(member_id,item_id,bid_time),
```

```
    FOREIGN KEY(member_id) REFERENCES Member(member_id),  
    FOREIGN KEY(item_id) REFERENCES Item(item_id)
```

```
);
```