

## Detailed Design

### **Use Case diagrams**

This section includes the Use Case diagram for the following agents

- Access Agent
- Search Agent
- Feedback Agent
- Payment Agent
- Shopping Agent
- Delivery Agent

#### Access Agent:



#### Search Agent:



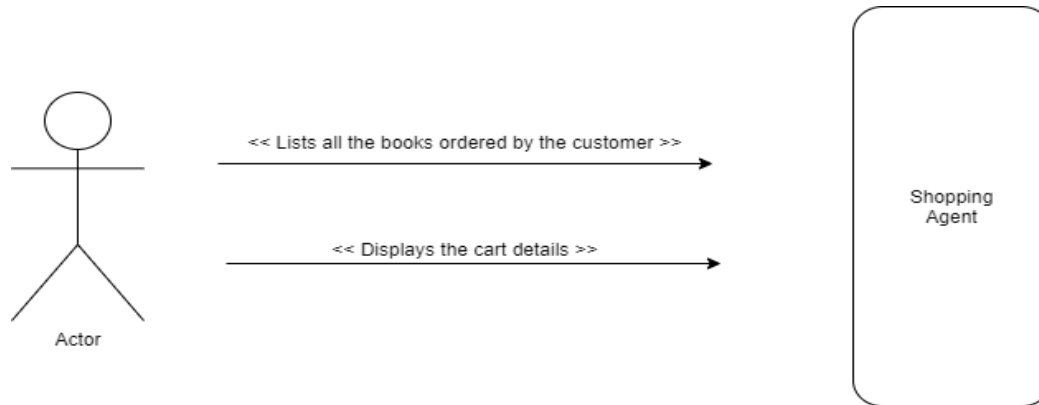
#### Feedback Agent:



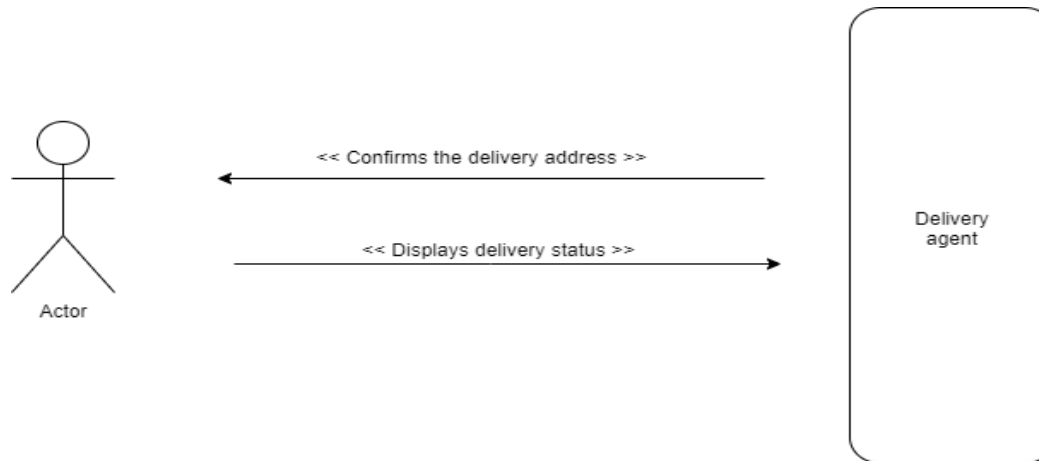
#### Payment Agent:



### **Shopping Agent:**



### **Delivery Agent:**



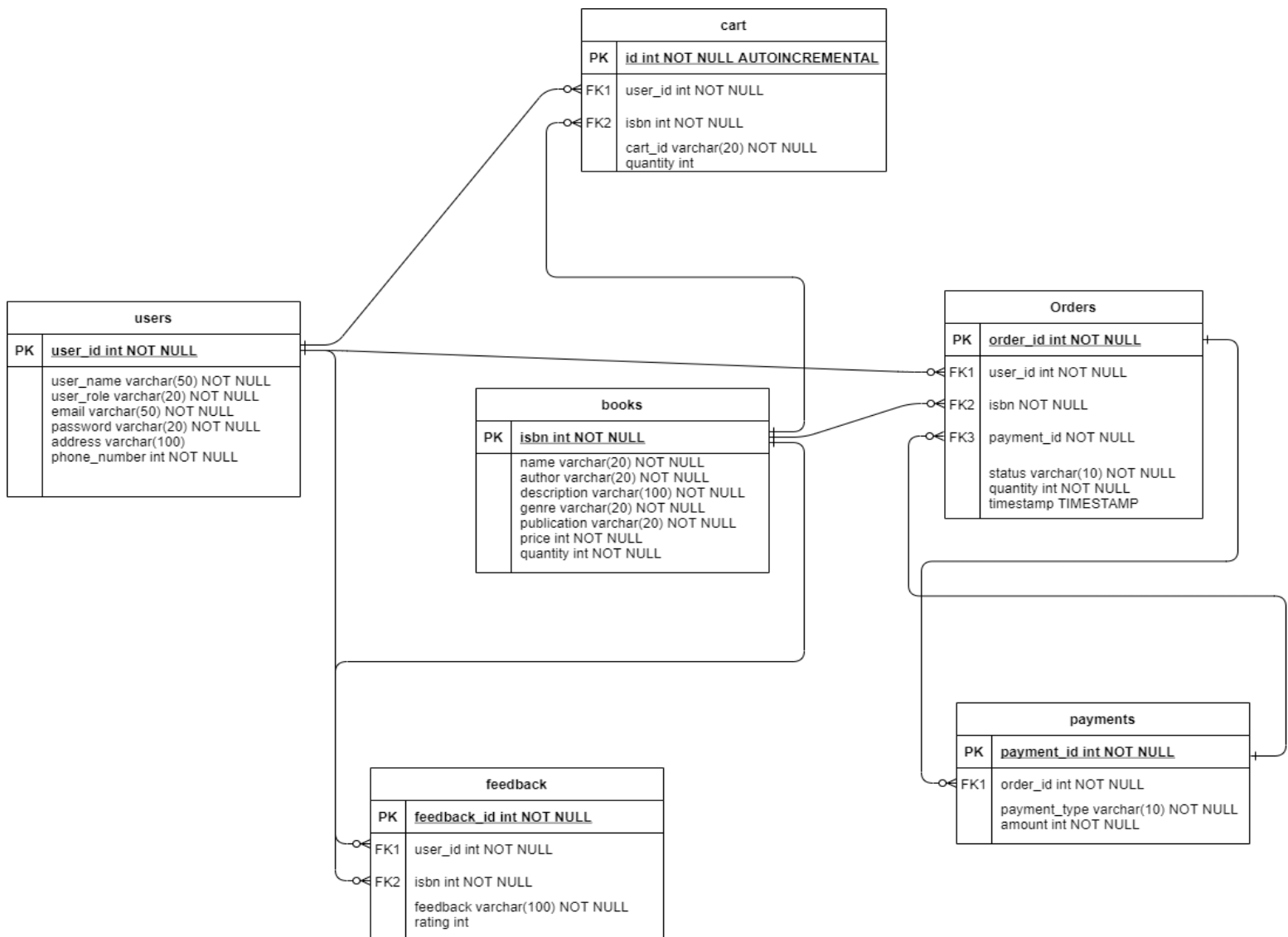
### **Data Specification**

This section represents the database design that is needed for the system. The Entity-relationship diagram is used to represent the primary key and foreign key relationships with one table to another. Moreover, the data type of each table field is presented in the diagram and even in the following table.

The following two sections represents the data specification

- Entity Relationship Diagram
- Data Definition

### **Entity Relationship Diagram:**



## Data Definition

This section contains the data type of every field for every table.

### Users Table:

Field	Description	Type
user_id	Unique id for every user	int
user_name	Name of the user	varchar(50)
user_role	Role specification of user	varchar(20)
email	Email id of the user	varchar(50)

password	Password for access the user profile	varchar(20)
address	Delivery and payment address of the user	varchar(100)
phone_number	Contact number of the user	int

**Books table:**

Field	Description	Type
isbn	Unique id for a book	int
name	Name of the book	varchar(20)
author	Author of the book	varchar(20)
description	Book description	varchar(50)
genre	Category of the book	varchar(20)
publication	Publication of the book	varchar(20)
price	Price of the book	int
quantity	Book quantity in the system	int

**Cart table:**

Field	Description	Type
id	Unique id for each record	Int (auto incremental)
user_id	Unique id of the user	int
isbn	Unique id of the book	int
cart_id	Unique id of the cart	int
quantity	Quantity in the cart	int

**Feedback table:**

Field	Description	Type
feedback_id	Unique id for the feedback	int

user_id	Unique id of the user	int
isbn	Unique id of the book	int
feedback	Feedback by the user for a particular book	varchar(100)
rating	Rating by the user for a particular book	int

**Payments table:**

Field	Description	Type
payment_id	Unique id for every transaction	int
order_id	Unique id for every order	int
payment_type	Type of the payment	varchar(10)
amount	Total amount of transactions	int

**Orders table:**

Field	Description	Type
order_id	Unique id for every order	int
user_id	Unique id of the user	int
isbn	Unique of the book	int
payment_id	Unique transaction id	int
status	Status of the order	varchar(10)
quantity	Quantity of the ordered books	int
timestamp	The date and time when the order is placed	TIMESTAMP