

DataBase Systems

Order Processing System

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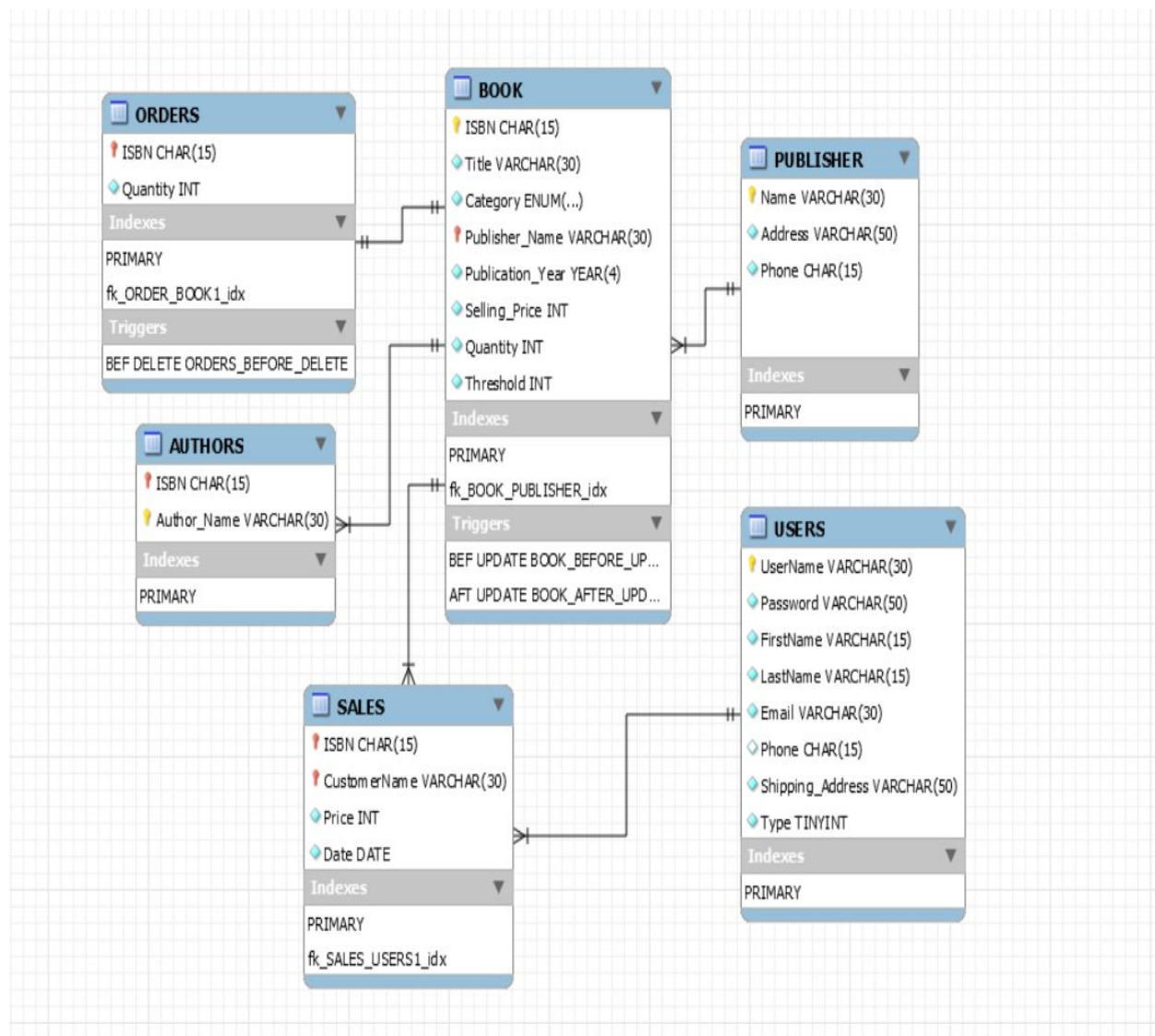
Merna Moustafa El-Refaie (57)

Neveen Samir Nagy (61)

Overview

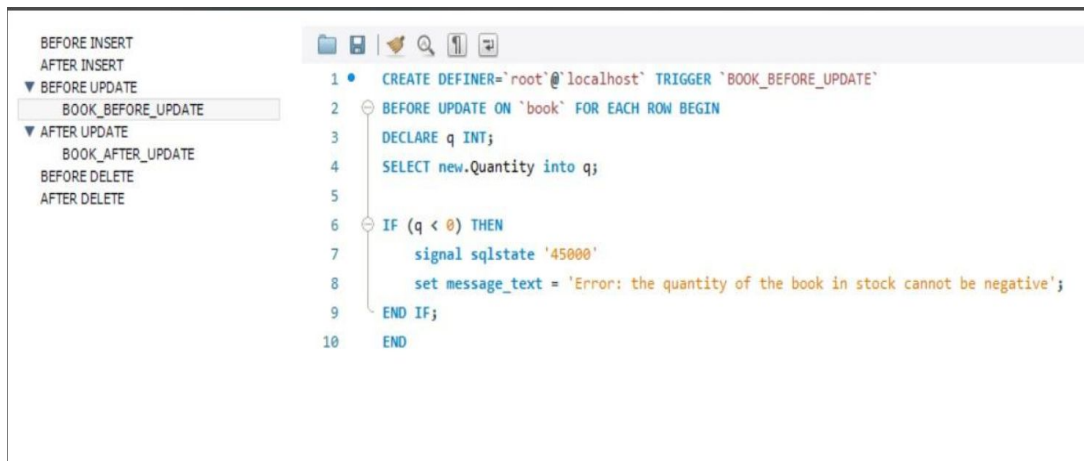
It is required to analyze, design and implement a database system to support the operations of a simplified online bookstore. Also, it is required to create the necessary forms to perform these operations.

ERD Diagram

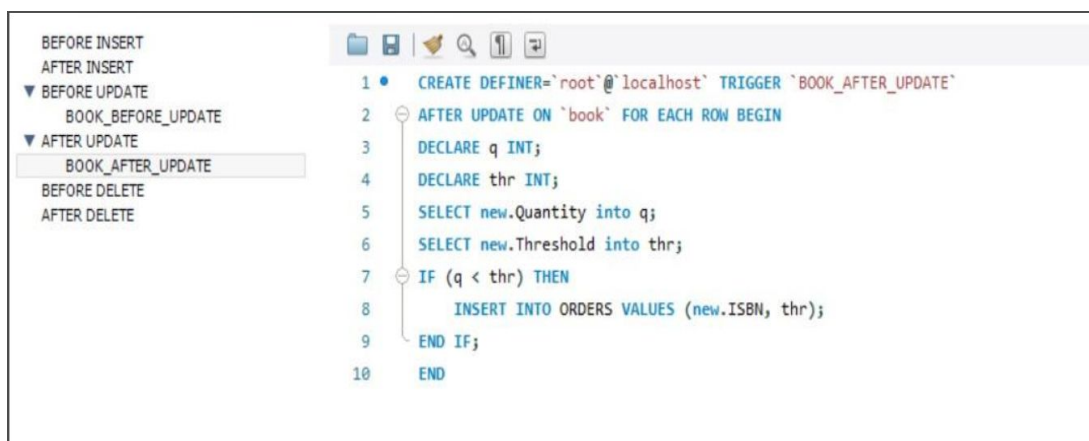


Detailed Analysis

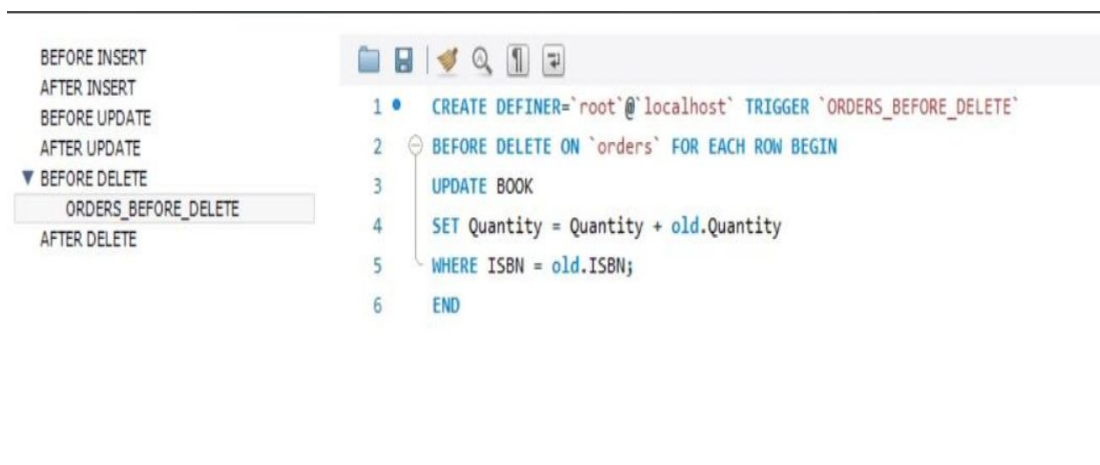
- triggers.



```
1 CREATE DEFINER='root'@'localhost' TRIGGER `BOOK_BEFORE_UPDATE`
2 BEFORE UPDATE ON `book` FOR EACH ROW BEGIN
3 DECLARE q INT;
4 SELECT new.Quantity into q;
5
6 IF (q < 0) THEN
7 signal sqlstate '45000'
8 set message_text = 'Error: the quantity of the book in stock cannot be negative';
9 END IF;
10 END
```



```
1 CREATE DEFINER='root'@'localhost' TRIGGER `BOOK_AFTER_UPDATE`
2 AFTER UPDATE ON `book` FOR EACH ROW BEGIN
3 DECLARE q INT;
4 DECLARE thr INT;
5 SELECT new.Quantity into q;
6 SELECT new.Threshold into thr;
7 IF (q < thr) THEN
8 INSERT INTO ORDERS VALUES (new.ISBN, thr);
9 END IF;
10 END
```



```
1 CREATE DEFINER='root'@'localhost' TRIGGER `ORDERS_BEFORE_DELETE`
2 BEFORE DELETE ON `orders` FOR EACH ROW BEGIN
3 UPDATE BOOK
4 SET Quantity = Quantity + old.Quantity
5 WHERE ISBN = old.ISBN;
6 END
```

- Procedures

```
1 CREATE DEFINER='test'@'%' PROCEDURE `Sign_IN` (in UserName VARCHAR(30),
2                                     in Password varchar(50),
3                                     in tp ENUM('Customer','Manager'))
4 BEGIN
5     select * from Users where (users.UserName = UserName)
6                             and (users.Password = Password)
7                             and (users.tp = tp);
8 END
```

Activate

```
1 CREATE PROCEDURE `Sign_UP` (in UserName varchar(30),
2                             in Password varchar(50),
3                             in firstName varchar(15),
4                             in lastName varchar(15),
5                             in email varchar(30),
6                             in phone char(15),
7                             in shipping_address varchar(50),
8                             in tp ENUM('Customer','Manager'))
9 BEGIN
10     insert into users (UserName, Password, FirstName, LastName, Email, Phone, Shipping_Address, tp)
11     values (UserName, Password, firstName, lastName, email, phone, shipping_address, tp);
12 END
```

Activate

```
1 CREATE PROCEDURE `Update_User` (in UserName varchar(30),
2                                 in Password varchar(50),
3                                 in FirstName varchar(15),
4                                 in lastName varchar(15),
5                                 in email varchar(30),
6                                 in phone char(15),
7                                 in shipping_address varchar(50),
8                                 in tp ENUM('Customer','Manager'),
9                                 in current_name varchar(30))
10 BEGIN
11     update users set users.UserName = UserName,
12                     users.Password = Password,
13                     users.FirstName = FirstName,
14                     users.LastName = lastName,
15                     users.Email = email,
16                     users.Phone = phone,
17                     users.Shipping_Address = shipping_address,
18                     users.tp = tp
19     where users.UserName = current_name;
20 END
```

Activate

```

1 CREATE PROCEDURE `Search_Book` (in ISBN char(15),
2                               in Title varchar(30),
3                               in Category enum('Science','Art','Religion','History','Geography'),
4                               in Publisher_name varchar(30),
5                               in Author_Name varchar(30))
6 BEGIN
7   select authors.ISBN,Title,authors.Author_Name,Category,Publisher_Name,Publication_Year,Selling_Price,Quantity,Threshold
8   from book left join authors on book.ISBN = authors.ISBN
9   where (ISBN is null or book.ISBN = ISBN)
10        and (Title is null or book.Title = Title)
11        and (Category is null or book.Category = Category)
12        and (Publisher_name is null or book.Publisher_Name = Publisher_name)
13        and (Author_Name is null or authors.Author_Name = Author_Name);
14 END

```

```

1 CREATE PROCEDURE `AddBook` (IN ISBN CHAR(15),IN Title VARCHAR(30) ,
2                             IN Category ENUM('Science', 'Art', 'Religion', 'History', 'Geography'),
3                             IN Publisher_Name VARCHAR(30),IN Publication_Year YEAR(4),
4                             IN Selling_Price INT, IN Quantity INT, IN Threshold INT)
5 BEGIN
6   INSERT INTO BOOK VALUES (ISBN,Title,Category,Publisher_Name,Publication_Year,
7                             Selling_Price,Quantity,Threshold);
8 END

```

```

1 CREATE PROCEDURE `add_author` (in i char(15), in au_name varchar(30))
2 BEGIN
3   insert into authors values (i, au_name);
4 END

```

```

1 CREATE DEFINER='test'@'%' PROCEDURE `AddPublisher` (IN p_name VARCHAR(30), IN p_address VARCHAR(50), IN p_phone CHAR(15))
2 BEGIN
3   if (not exists(SELECT * FROM PUBLISHER WHERE Publisher_Name=p_name))
4   then
5     INSERT INTO PUBLISHER (Publisher_Name,Address,Phone) values (p_name,p_address,p_phone);
6   end if;
7 END

```

```

1 CREATE PROCEDURE `ModifyBook` ( IN current_ISBN CHAR(15),IN p_ISBN CHAR(15),IN p_Title VARCHAR(30) ,
2                                 IN p_Category ENUM('Science', 'Art', 'Religion', 'History', 'Geography'),
3                                 IN p_Publisher_Name VARCHAR(30),IN p_Publication_Year YEAR(4),
4                                 IN p_Selling_Price INT, IN p_Quantity INT, IN p_Threshold INT)
5 BEGIN
6   UPDATE BOOK
7   SET ISBN = p_ISBN,
8       Title = p_Title,
9       Category = p_Category,
10      Publisher_Name = p_Publisher_Name,
11      Publication_Year = p_Publication_Year,
12      Selling_Price = p_Selling_Price,
13      Quantity = p_Quantity,
14      Threshold = p_Threshold
15   WHERE ISBN = current_ISBN;
16 END

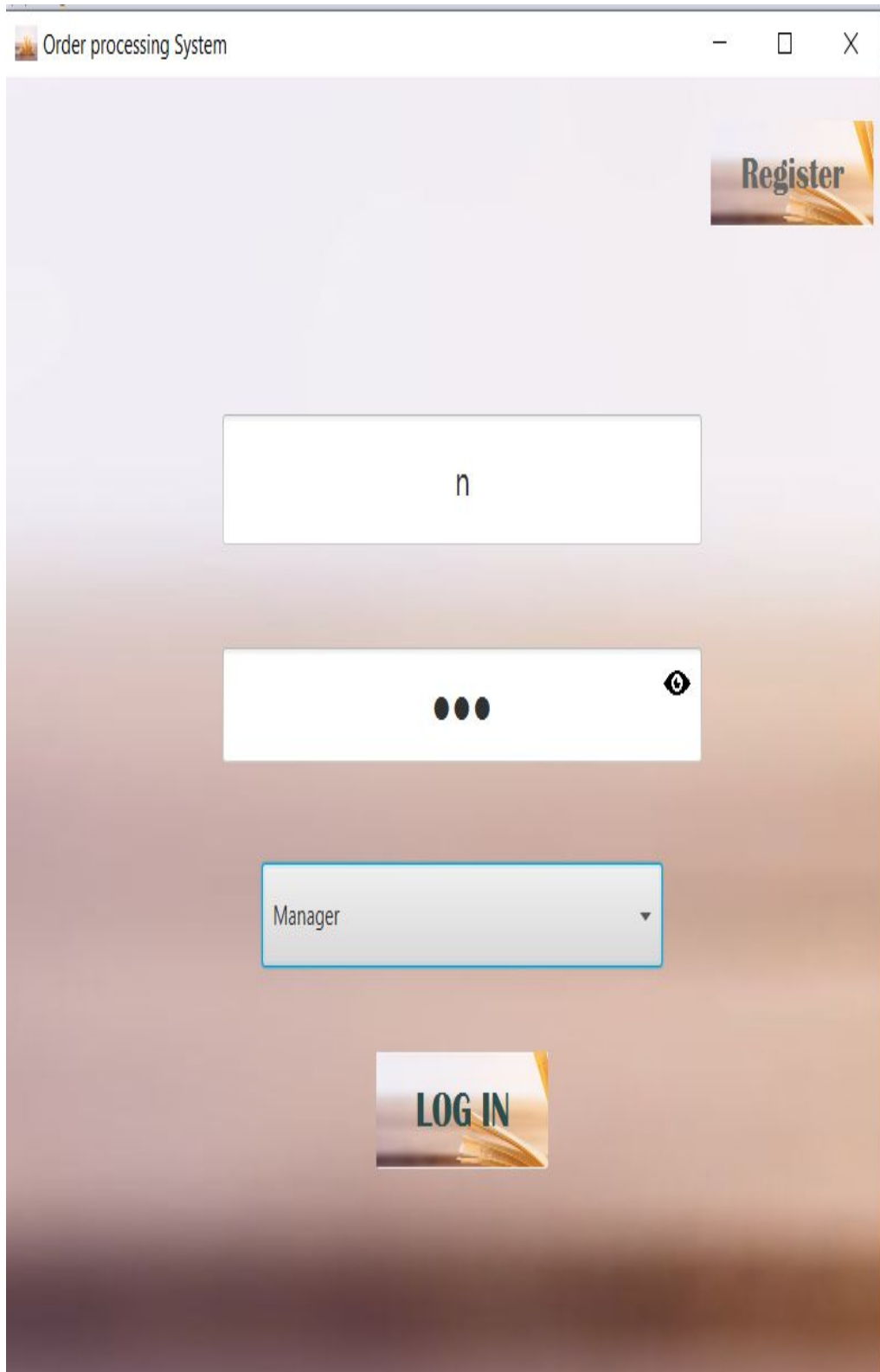
```

```
1 CREATE DEFINER='test'@'%' PROCEDURE `add_order`(in i char(15), in q int(11))
2 BEGIN
3   if ((SELECT EXISTS(SELECT * FROM orders WHERE ISBN = i)) = 1 )
4   then
5     update orders
6     set orders.Quantity = orders.Quantity + q
7     where orders.isbn = i;
8   else
9     insert into orders values(i,q);
10  end if;
11  END
```

```
1 CREATE PROCEDURE `confirm_order`(in i char(15))
2 BEGIN
3   DELETE FROM orders
4   WHERE ISBN = i;
5   END
```

```
1 CREATE PROCEDURE `comp_trans` (IN bookId CHAR(15),IN numberOfBooks INT)
2 BEGIN
3   UPDATE BOOK
4   SET Quantity = Quantity - numberOfBooks
5   WHERE ISBN = bookId;
6   END
```

Sample Screenshots

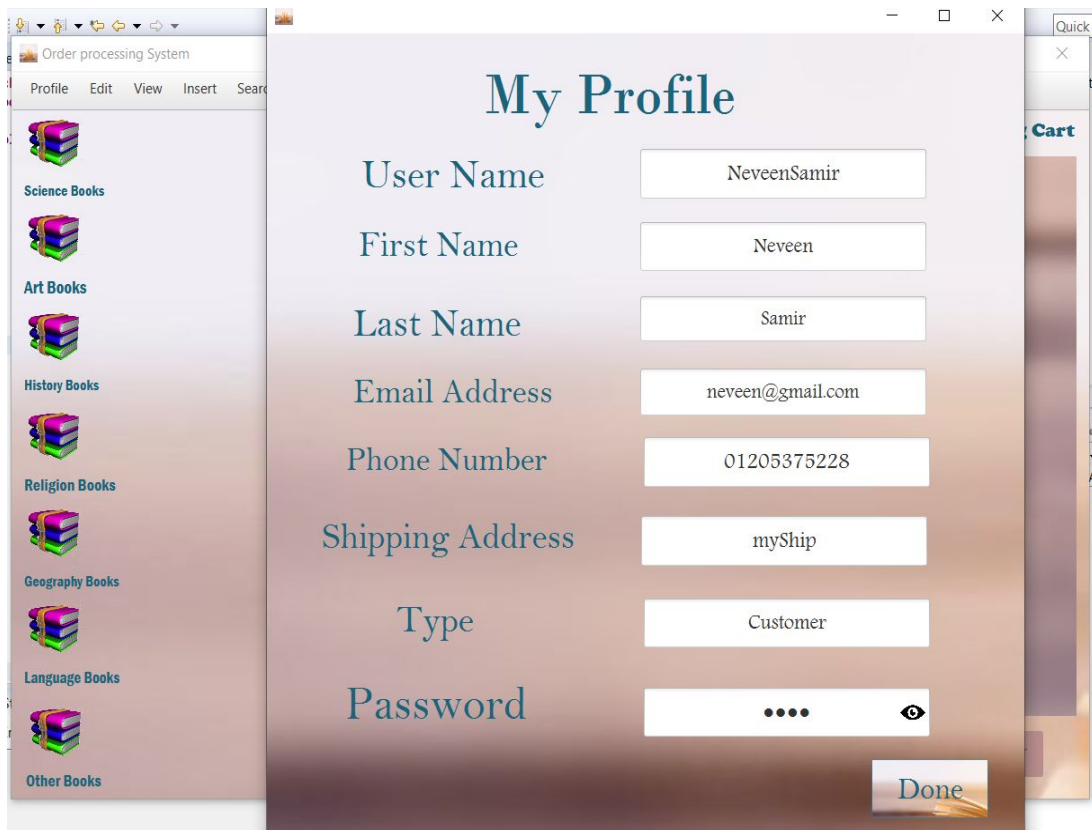
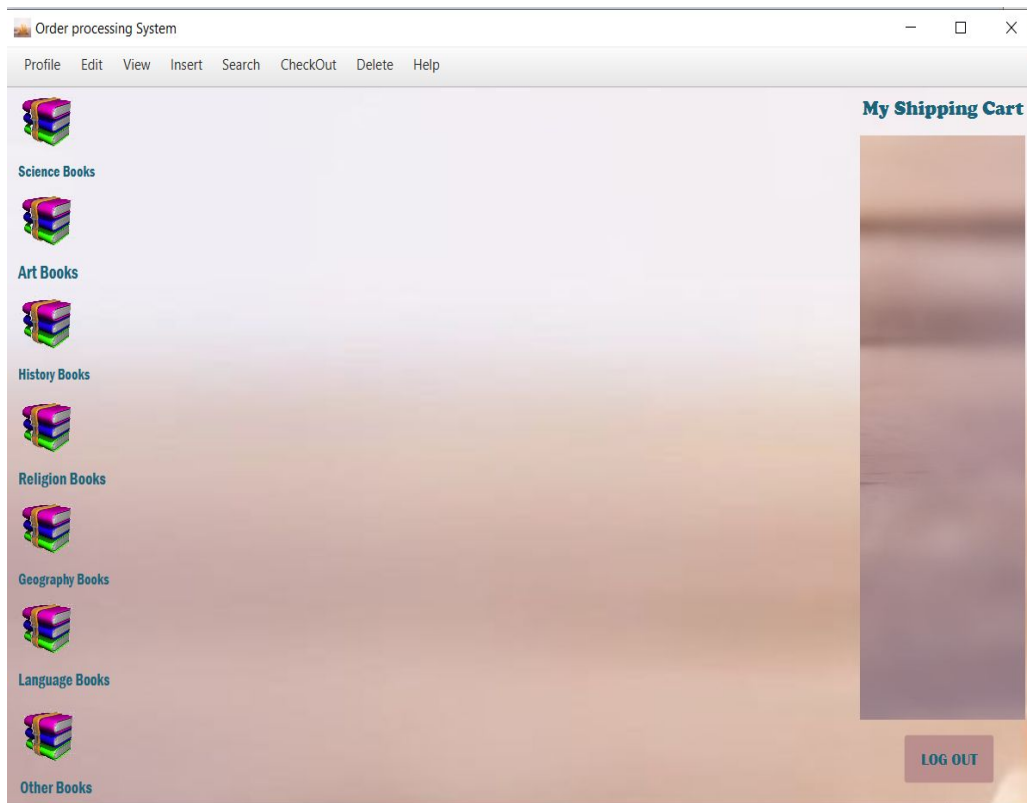


Order processing System

Registration

User Name	NeveenSamir
First Name	Neveen
Last Name	Samir
Email Address	neveen@gmail.com
Phone Number	01205375228
Shipping Address	myShip
Type	Customer
Password	••••

Finish



My Profile

User Name	<input type="text" value="N.SNagy"/>
First Name	<input type="text" value="Neveen"/>
Last Name	<input type="text" value="Samir"/>
Email Address	<input type="text" value="neveensamir@gmail.com"/>
Phone Number	<input type="text" value="01205375228"/>
Shipping Address	<input type="text" value="myShip"/>
Type	<input type="text" value="Customer"/>
Password	<input type="password" value="...."/>

[Done](#)

Order processing System

Profile Edit View **Insert** Search CheckOut Delete Help

Category

- Science
- Art
- Religion
- History
- Geography

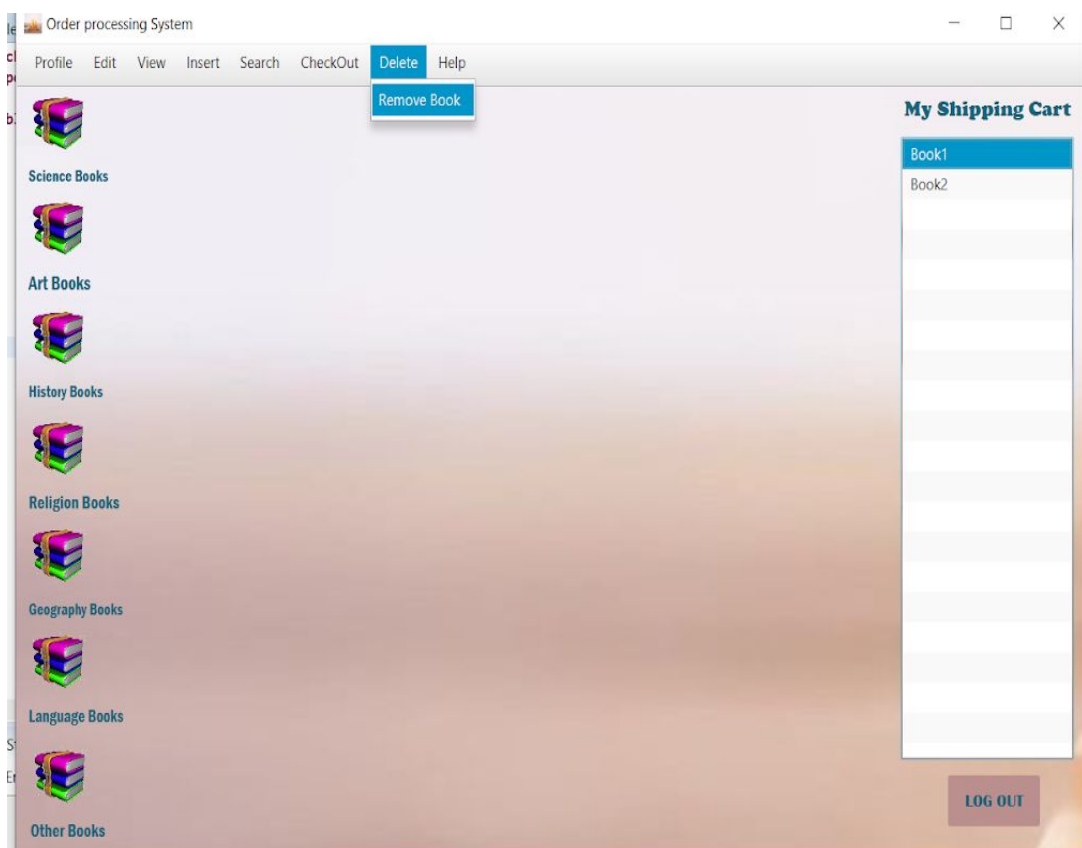
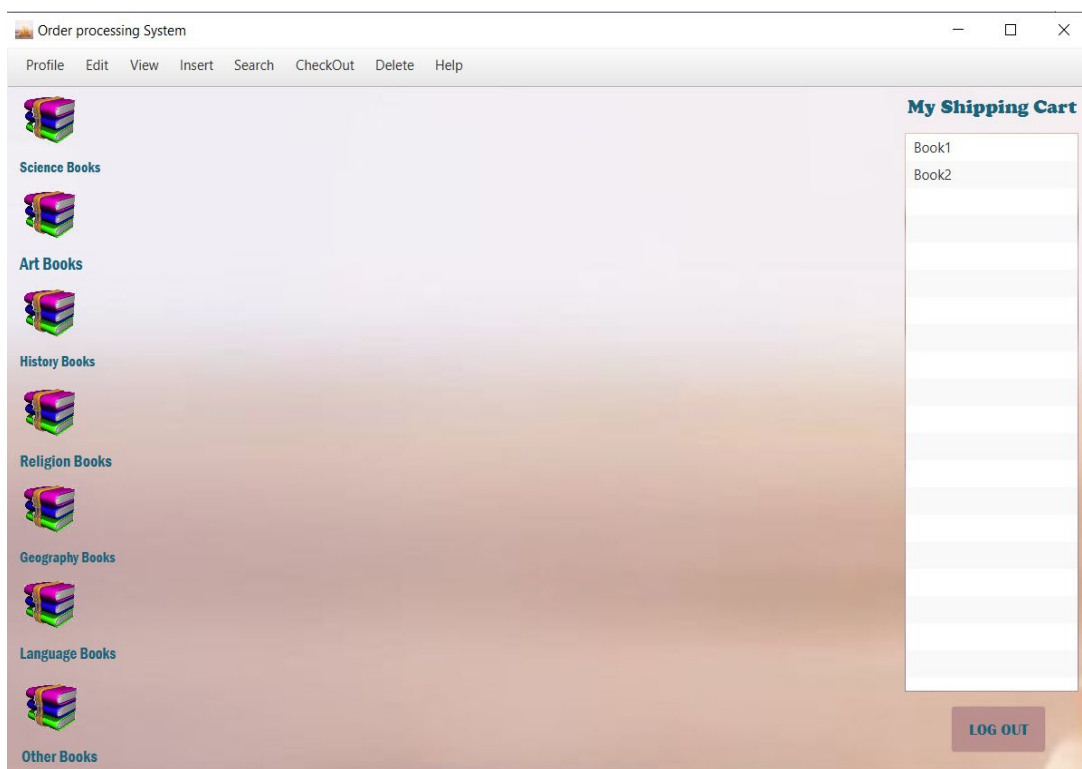
Publisher

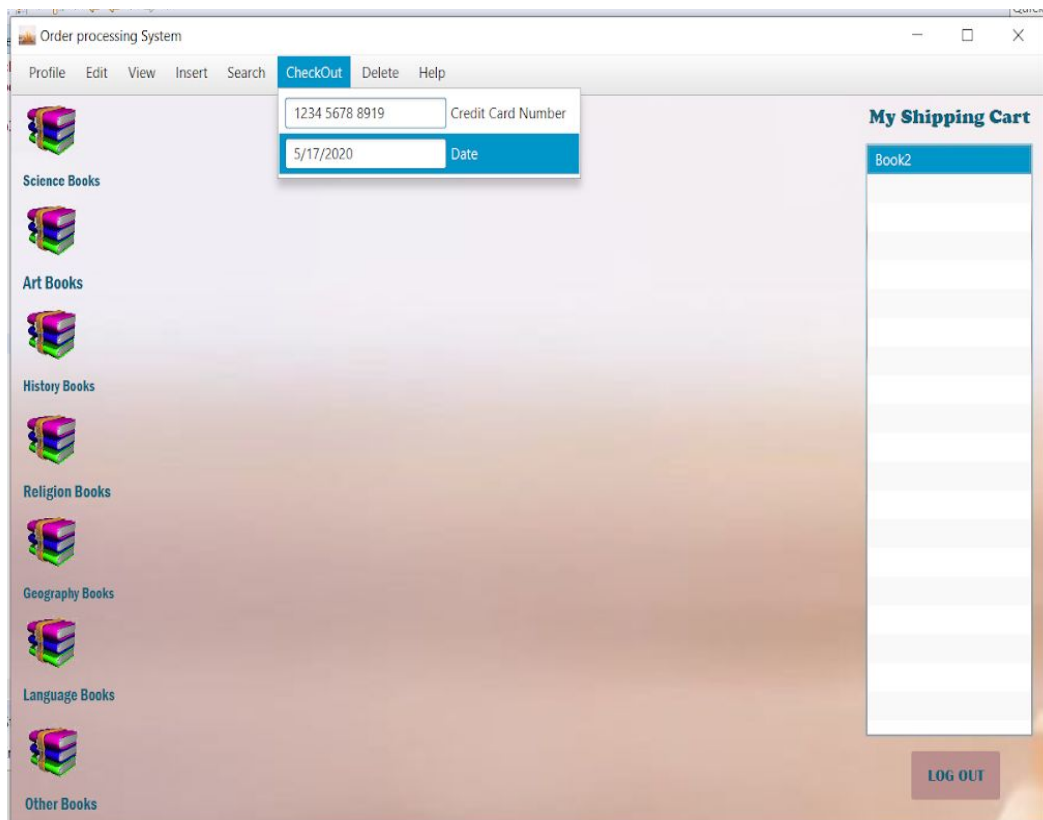
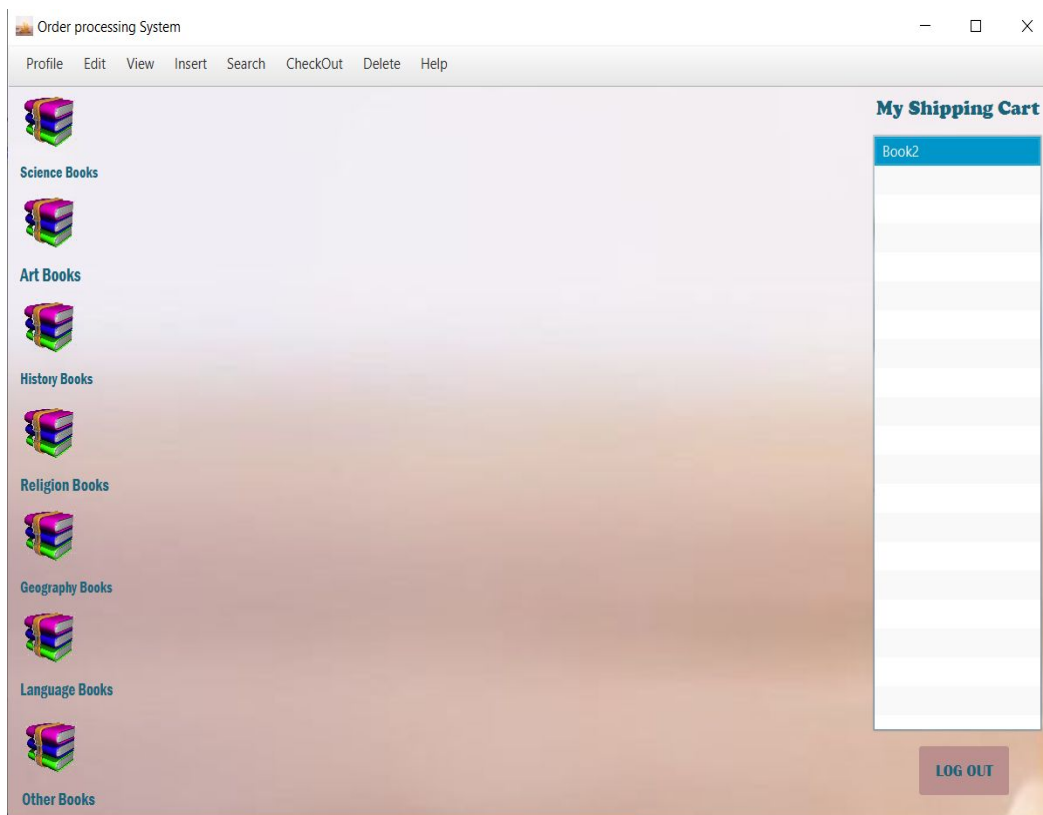
Author

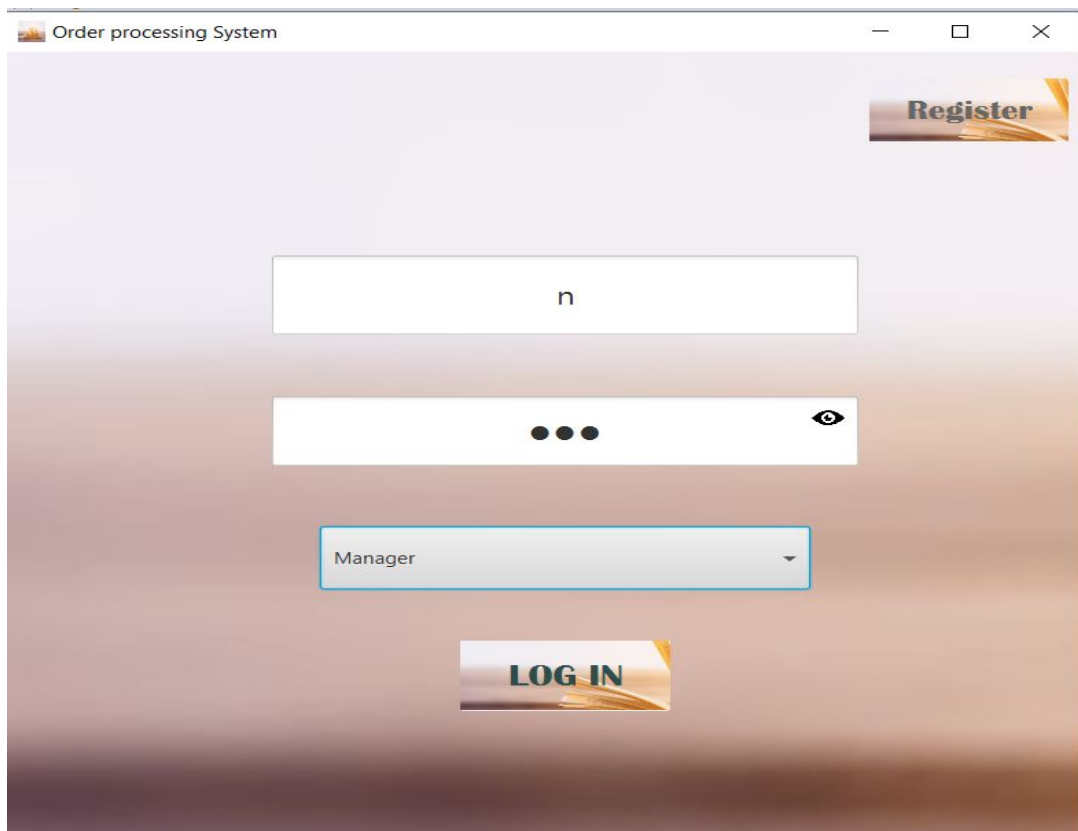
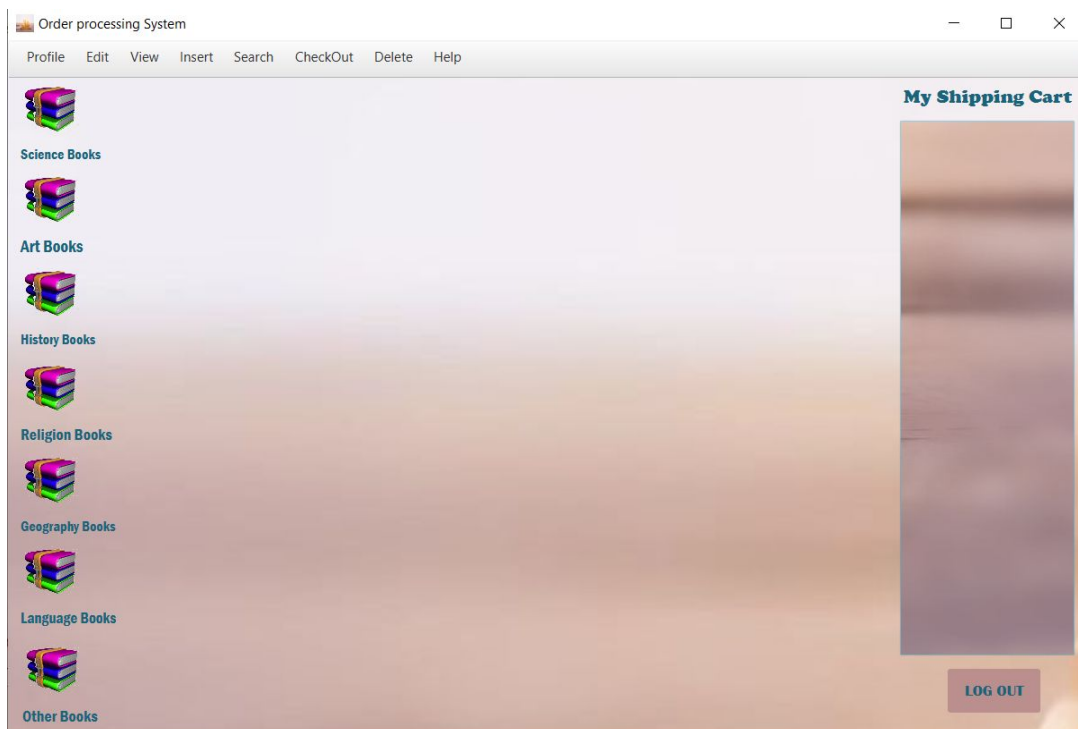
ISBN & Title

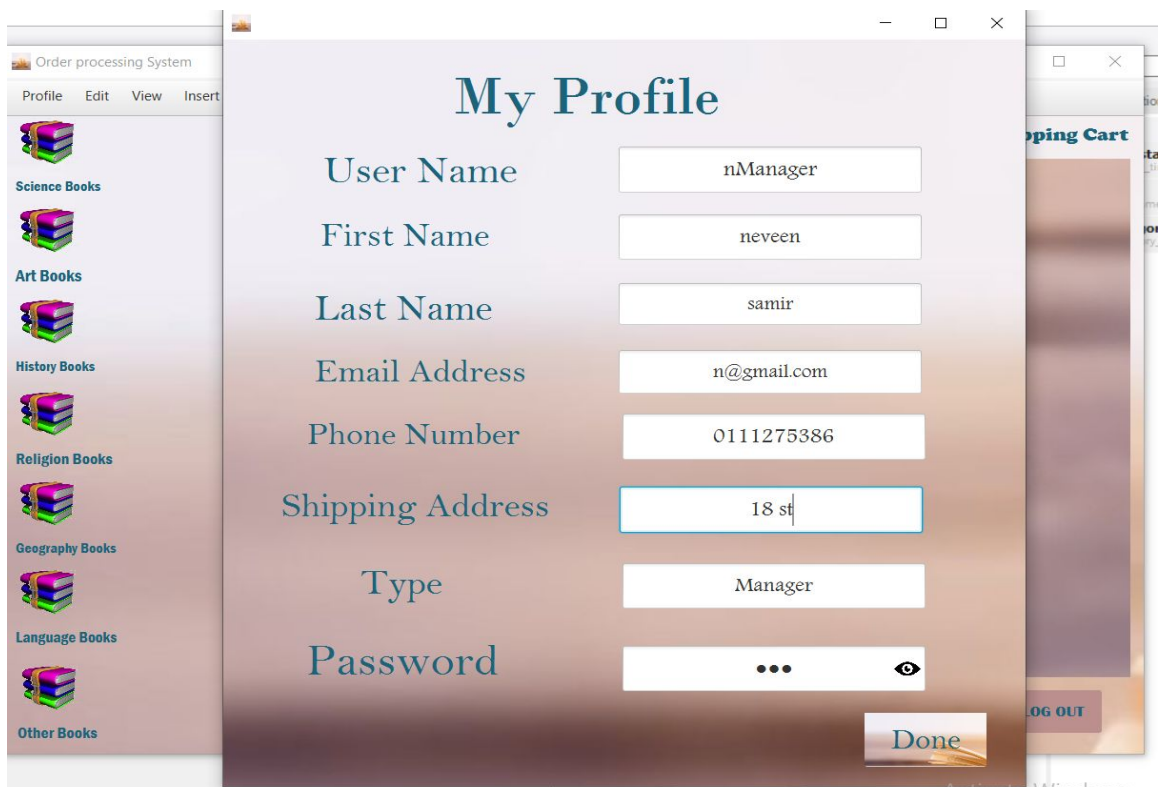
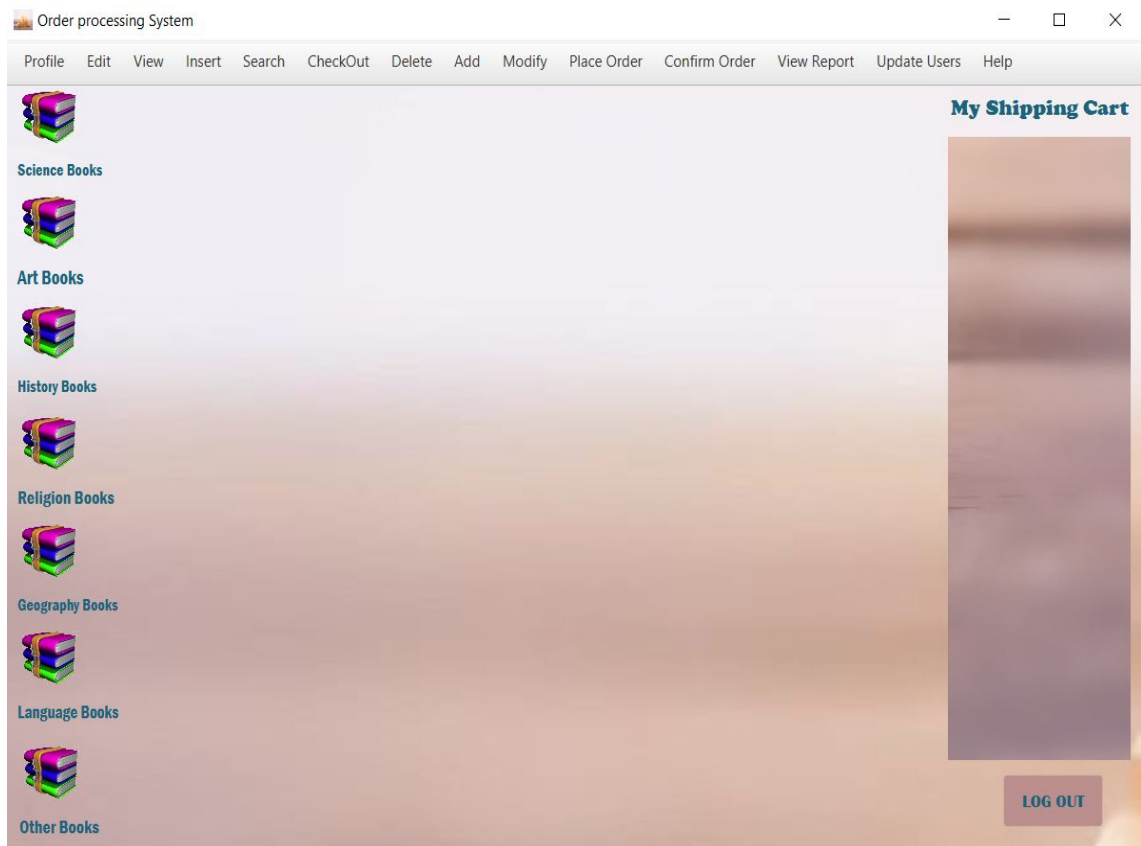
My Shipping Cart

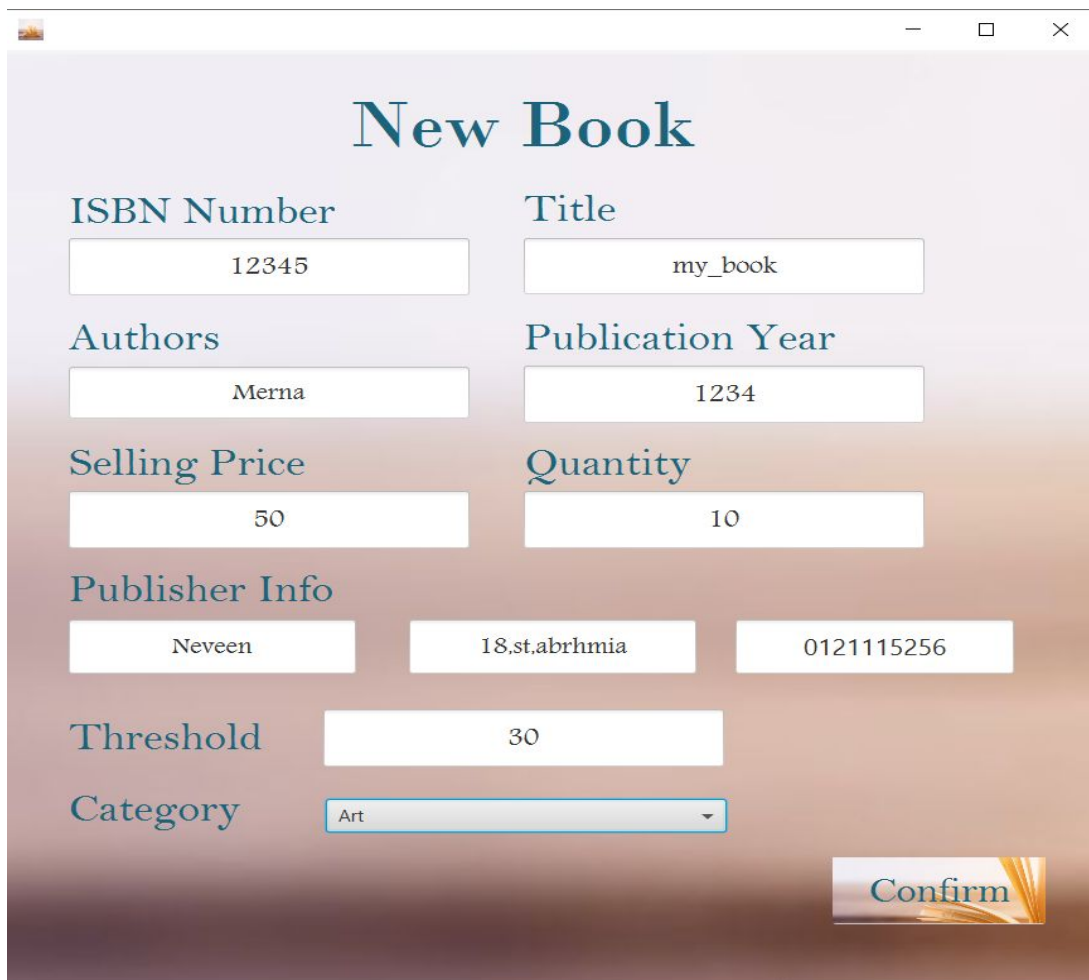
[LOG OUT](#)







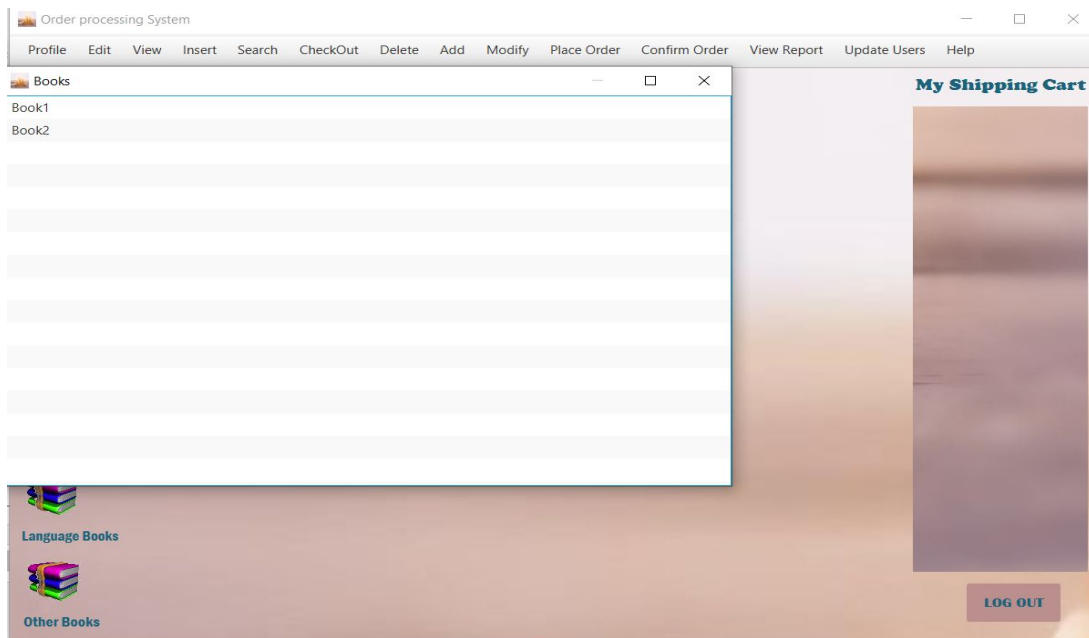




A screenshot of a web application window titled "New Book". The form contains several input fields for book details. The fields are arranged in two columns. The first column contains "ISBN Number" (12345), "Authors" (Merna), "Selling Price" (50), and "Publisher Info" (Neveen). The second column contains "Title" (my_book), "Publication Year" (1234), and "Quantity" (10). Below these, there is a "Threshold" field (30) and a "Category" dropdown menu (Art). A "Confirm" button is located at the bottom right of the form.

ISBN Number	Title	
12345	my_book	
Authors	Publication Year	
Merna	1234	
Selling Price	Quantity	
50	10	
Publisher Info		
Neveen	18,st,abrhmia	0121115256
Threshold	30	
Category	Art	

Confirm



A screenshot of a web application window titled "Order processing System". The window has a menu bar with options: Profile, Edit, View, Insert, Search, CheckOut, Delete, Add, Modify, Place Order, Confirm Order, View Report, Update Users, and Help. Below the menu bar, there is a "Books" section with a list of books: Book1 and Book2. To the right of the books list, there is a "My Shipping Cart" section. At the bottom of the window, there is a "LOG OUT" button. The window also displays "Language Books" and "Other Books" sections.

Order processing System

Profile Edit View Insert Search CheckOut Delete Add Modify Place Order Confirm Order View Report Update Users Help

Books

Book1

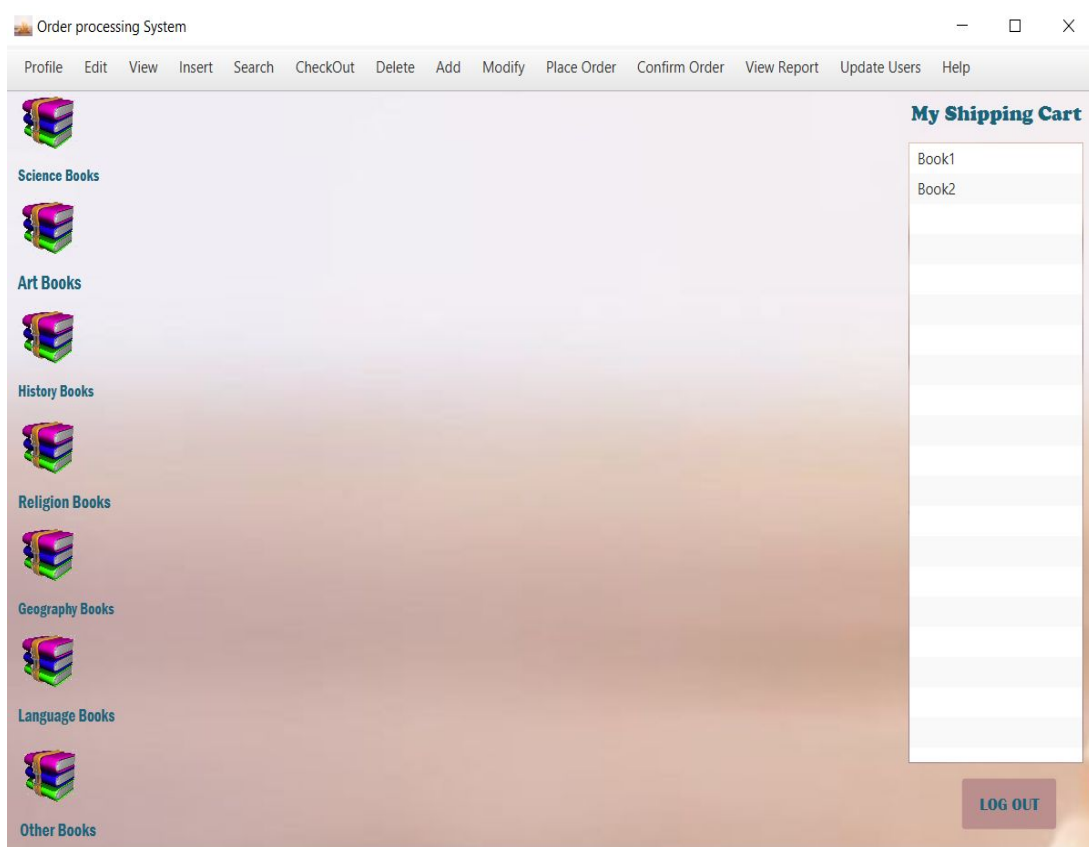
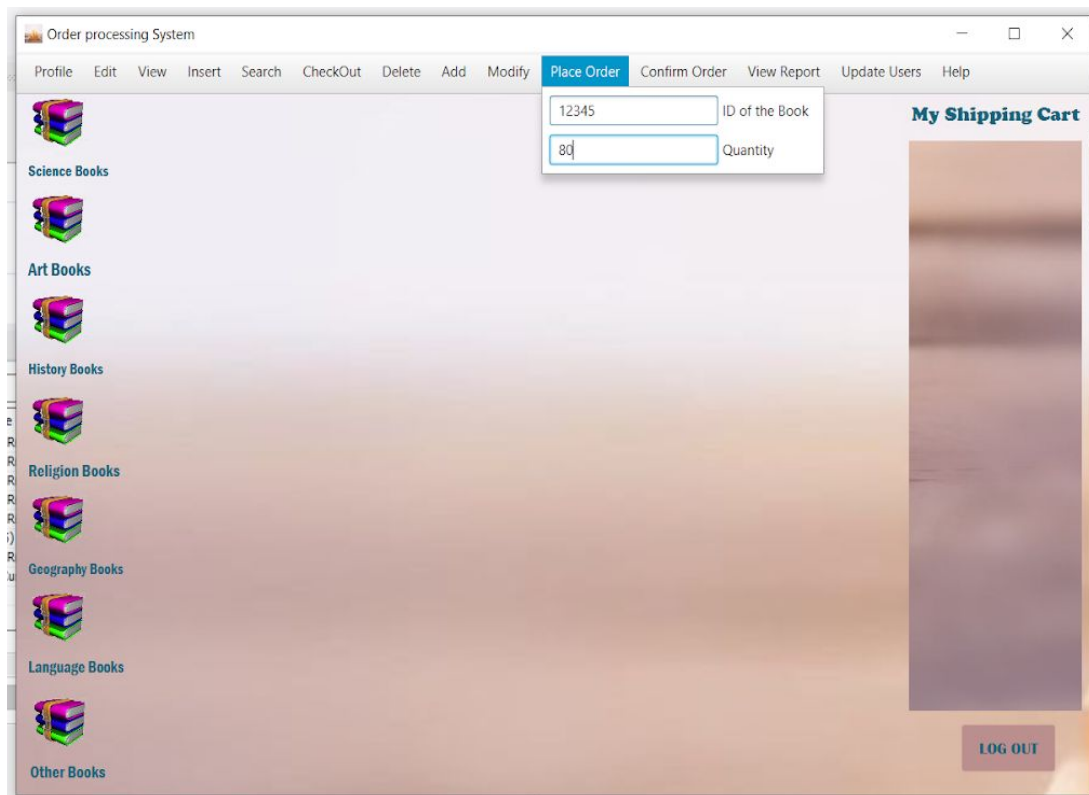
Book2

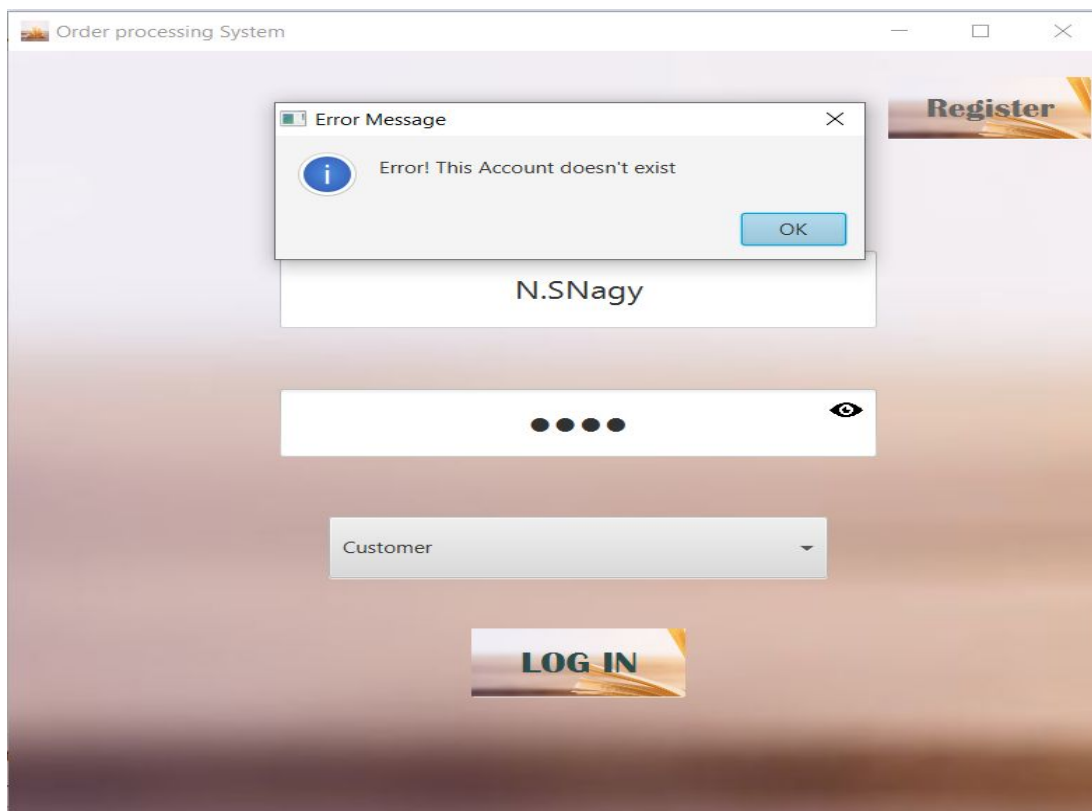
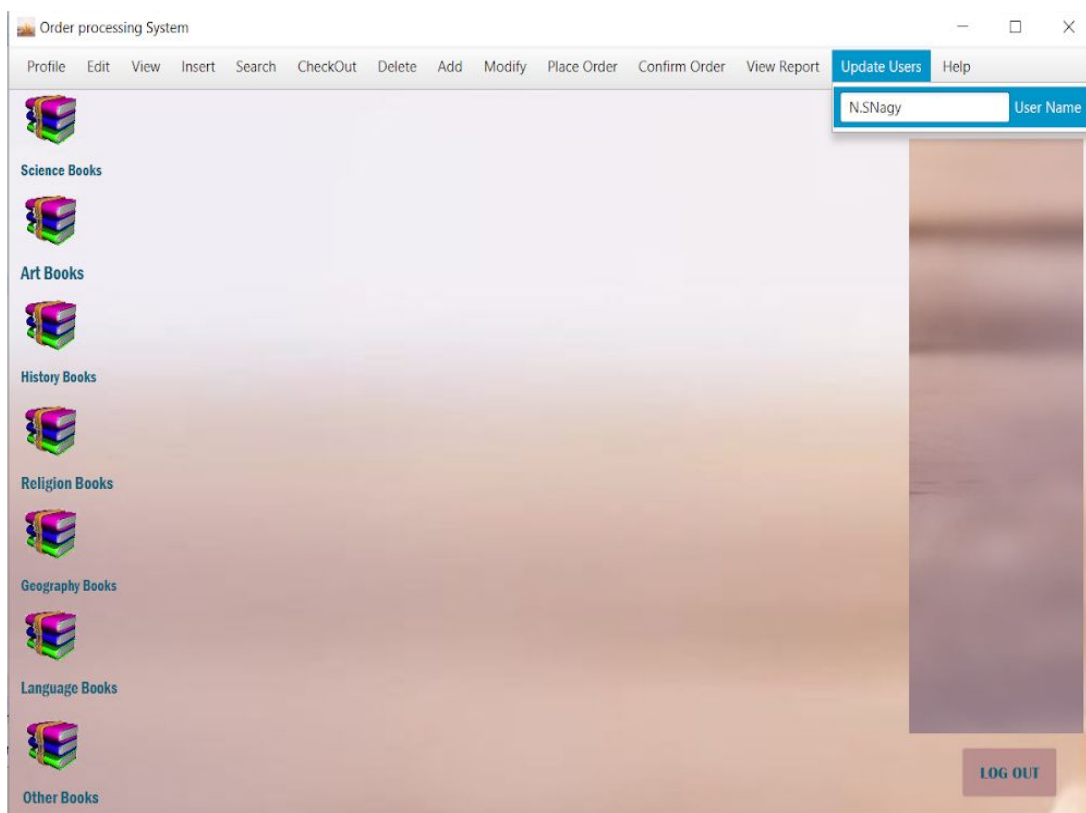
My Shipping Cart

LOG OUT

Language Books


Other Books





books & prices

Book Store




Sunday 17 May 2020

Total number of sold books	Total prices
3	500

Total Sales

Book Store



Sunday 17 May 2020

ISBN	Title	Quantity
123456789123456	lion	1
123456789123457	cat	2

Top 10 selling books

Book Store




Sunday 17 May 2020

ISBN	Title	Quantity
123456789123457	cat	2
123456789123456	lion	1

Top 5 customers

Book Store



Sunday 17 May 2020

Customer name	number of books
menna	2
merna	1