

Order Processing System

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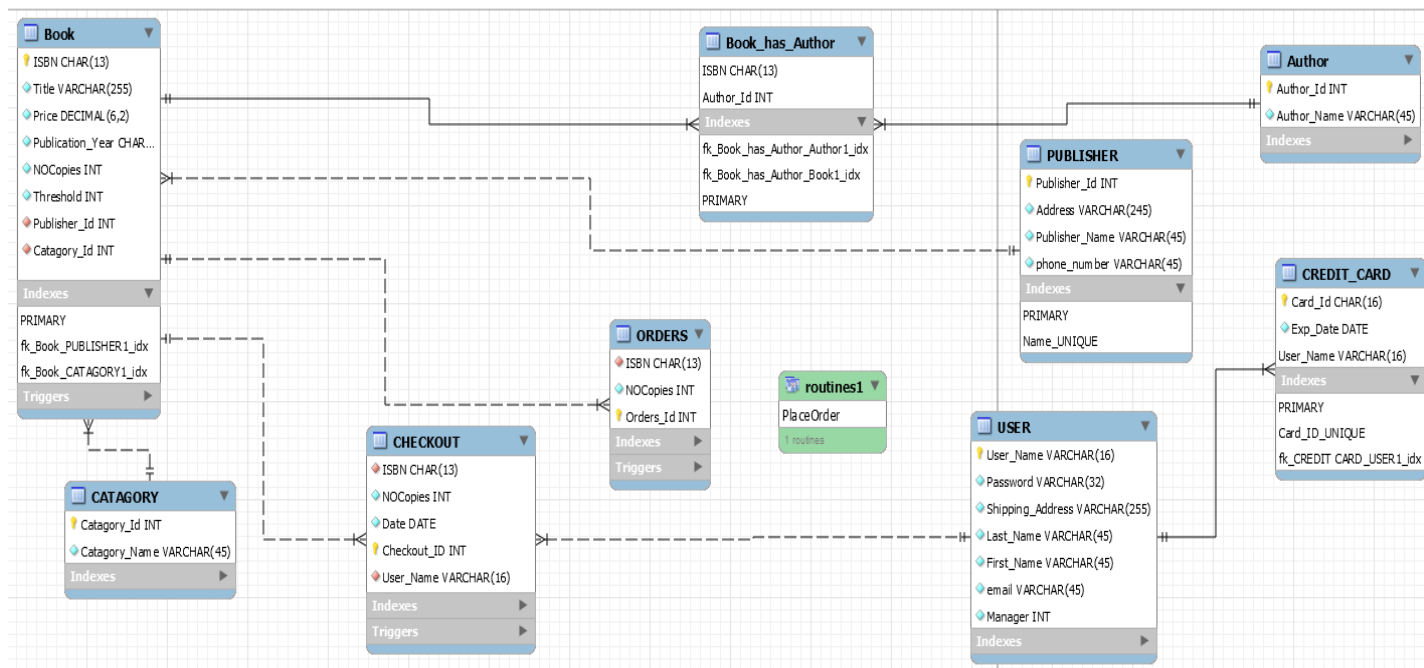
Abdelazez Elsayed 40

Mahmoud Kamal Mahmoud 58

Mohamed Magdy Abdelghany 55

Ahmed Ali Elsayed 8

ER Model :



Triggers :

- (Trigger before insert in book table) :

If the Manager wants to add a book with a number of Copies less than threshold
Print Error.

```
CREATE DEFINER = CURRENT_USER TRIGGER `mydb`.`Book_BEFORE_INSERT` BEFORE
INSERT ON `Book` FOR EACH ROW
BEGIN
IF NEW.NOCopies < NEW.Threshold then
    set @message_text = concat("enter a value more than the threshold");
    signal sqlstate '45000' set message_text = @message_text;
END If;
END
```

- (Trigger before update in book table) :

Used for print Error if user trying to order negative number of Copies OR trying to
order number of copies more than number of copies we have in system .

```
Create Trigger before_update_copies
BEFORE update ON Book FOR EACH ROW
BEGIN
declare ret INT;
if(NEW.NOCopies < 0) then
    set @message_text = concat("can't update with negative");
    signal sqlstate '45000' set message_text = @message_text;
end if;

select NOCopies into ret from Book where NEW.ISBN = ISBN;
IF NEW.NOCopies < 0 then
    set @message_text = concat('out of stock, remaining is ', ret);
    signal sqlstate '45000' set message_text = @message_text;
END If;
END
```

-
- (Trigger after update in book table) :

After updating the number of copies in the book table we check if the new number of copies is less than the threshold we will call our procedures.

```
Create Trigger after_update_copies
AFTER update ON Book FOR EACH ROW
BEGIN
IF NEW.NOCopies < NEW.Threshold AND OLD.NOCopies >= NEW.Threshold then
    CALL PlaceOrder(NEW.ISBN);
END If;
END
```

- (Trigger Before Delete in Order table) :

Before deleting the order of book We will change the number of copies in the book table to be threshold + old number of copies in book table .

```
CREATE DEFINER = CURRENT_USER TRIGGER `mydb`.`ORDERS_BEFORE_DELETE` BEFORE
DELETE ON `ORDERS` FOR EACH ROW
BEGIN
Update Book As B set B.NOCopies = B.NOCopies + OLD.NOCopies where
OLD.ISBN = B.ISBN;
END
```

-
- (Trigger before insert in CheckOut table) :

Here we check again if the number of books sold is more than what we have in the system we should print Error .

```
CREATE DEFINER = CURRENT_USER TRIGGER `mydb`.`CHECKOUT_BEFORE_INSERT`  
BEFORE INSERT ON `CHECKOUT` FOR EACH ROW  
BEGIN  
declare ret INT;  
select NOCopies into ret from Book where NEW.ISBN = ISBN;  
if(ret < NEW.NOCopies) then  
    set @message_text = concat('out of stock, remaining is ', ret);  
    signal sqlstate '45000' set message_text = @message_text;  
END IF;  
END
```

- (Trigger after insert in CheckOut table) :

Delete the number of copies sold from our system .

```
CREATE TRIGGER UPDATE_AFTER_INSERT_IN_CHECKOUT  
AFTER INSERT  
ON checkout FOR EACH ROW  
BEGIN  
update book set Book.NOCopies = Book.NOCopies - NEW.NOCopies where NEW.ISBN  
= book.ISBN;  
END;
```

- (Trigger after delete in Book_has_Author) :

Delete the book don't have author after deleting the author in the author table .

```
CREATE DEFINER=`root`@`localhost` TRIGGER `book_has_author_AFTER_DELETE` AFTER  
DELETE ON `book_has_author` FOR EACH ROW BEGIN      delete from book as b where  
b.isbn NOT IN(Select ba.ISBN from book_has_author as ba); END
```

- (Trigger before delete in Author):

Delete the tuple in book_has_author already deleted their author .

```
CREATE DEFINER=`root`@`localhost` TRIGGER `author_BEFORE_DELETE`  
BEFORE DELETE ON `author` FOR EACH ROW BEGIN  
    delete from book_has_author as ba where  
    ba.Author_id=OLD.Author_id;  
END
```

procedures :

Used to make automatic Order in Our order Table if NoCopies of any book become below threshold after the pruches this book .

```
DELIMITER $$  
CREATE PROCEDURE PlaceOrder (IN ReqISBN CHAR(13))  
    BEGIN  
        Insert into ORDERS(ISBN,NOCopies) values (ReqISBN , ( Select  
        Threshold from Book where Book.ISBN = ReqISBN));  
    END$$
```

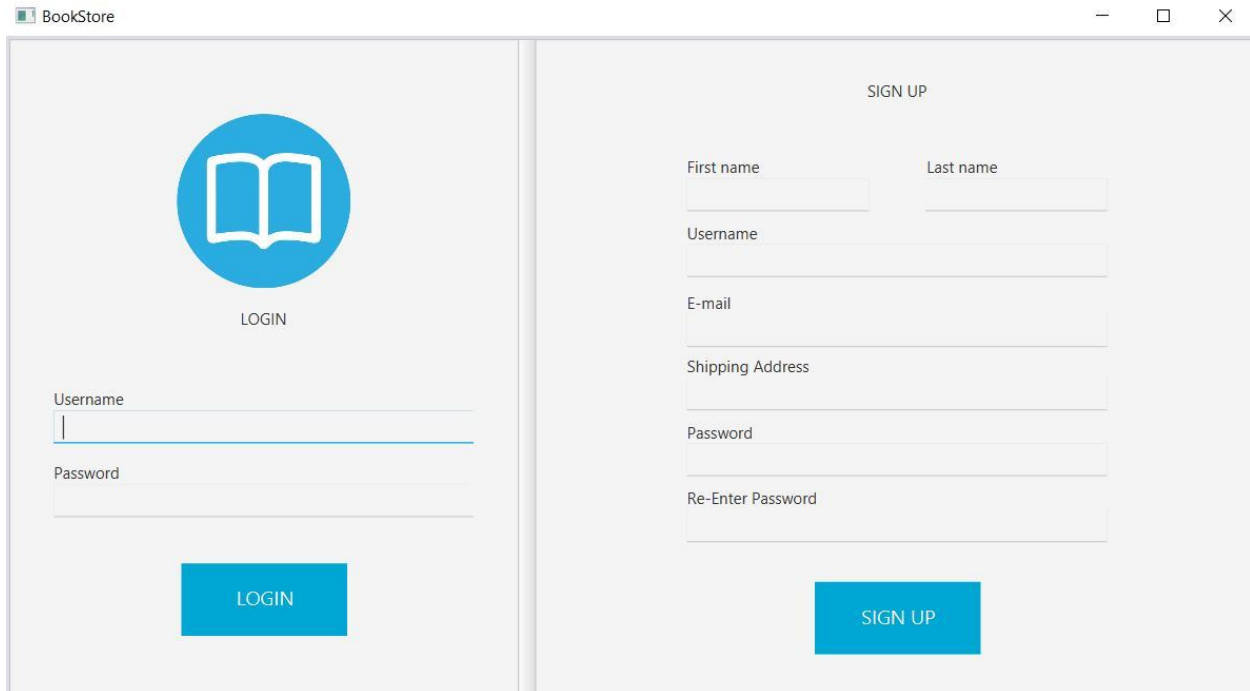
Transaction :

When we add a book we check if the book has an author then commit else rollback add this book . Our Assumption no book can be inserted without Author(s) .

```
con.setAutoCommit(false);  
try {  
    addBookStatement.executeUpdate();  
    insertAuthorForBook((String) map.get(SearchContract.ISBN), (List<String>)map.get(SearchContract.LIST_OF_AUTHORS));  
    con.commit();  
}catch (SQLException e){  
    con.rollback();  
    throw new SQLException("ERROR in inserting book\n"+e.getMessage());  
}finally {  
    con.setAutoCommit(true);  
}
```

Screen Shots :


Login if you have acc | | sign up if you are a new customer .



The screenshot displays a web application window titled "BookStore" with standard window controls (minimize, maximize, close) in the top right corner. The interface is split into two panels. The left panel features a blue circular icon with a white open book symbol, labeled "LOGIN" below it. It contains two input fields: "Username" and "Password", followed by a blue "LOGIN" button. The right panel is titled "SIGN UP" and contains several input fields: "First name" and "Last name" (side-by-side), "Username", "E-mail", "Shipping Address", "Password", and "Re-Enter Password". A blue "SIGN UP" button is positioned at the bottom of this panel.

You can search without any attribute or with title or ISBN or publisher or category or author As you like .

If user is manager Manager panel will appear other side User can't see Manger Panel button .



Welcome,
Khames Khames

My Profile

My cart

Admin Panel

LOGOUT

Search

ISBN	Title	No. Copies	Price	Publisher	Category	Authors	publicationYear
8166262393279	Title 8	55	480.09	sasasasasasa	Science	Taha Hussein ,	2007
5344846682283	Title 21	50	484.98	sasasasasasa	History	Taha Hussein ,	2000
4758767022666	Title 11	98	277.47	zezo	Art	Abaas Elaqaad ,	2014
5464741853335	Title 7	32	251.09	zeozeo	Science	Ngeeb Mahfouz ,	2009
6383657551036	Title 2	35	178.41	zezo	Science	Ngeeb Mahfouz ,	2004
1784122339566	Title 17	18	326.67	zeo	Art	Abaas Elaqaad ,	2003
9944482194779	Title 3	69	113.17	sasasasasasa	Science	Abaas Elaqaad ,	2002
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0100750038697	Title 12	99	344.6	sasasasasasa	Art	Ngeeb Mahfouz ,	2005
2527016530819	Title 1	27	167.23	zeo	Science	Ngeeb Mahfouz ,	2012

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BookStore

ISBN

Title

Number Of Copies

Publisher Name

Publication Year

Price

Category

Threshold

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Add Book

Book ISBN

Remove Book

Book ISBN

Field to edit

New Value

Edit Book

Username

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Book ISBN

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Confirm Order

Publishers and Authors

Back

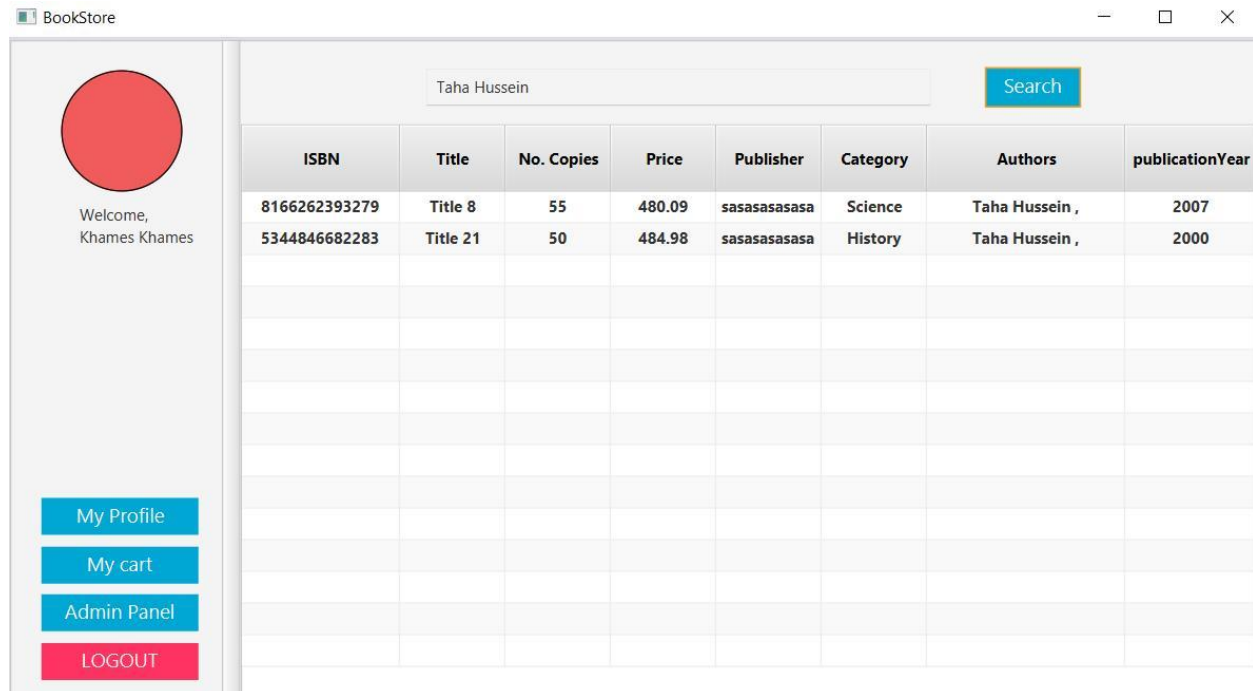
Order ID	ISBN	#Copies	
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18	2527016530819	100	

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