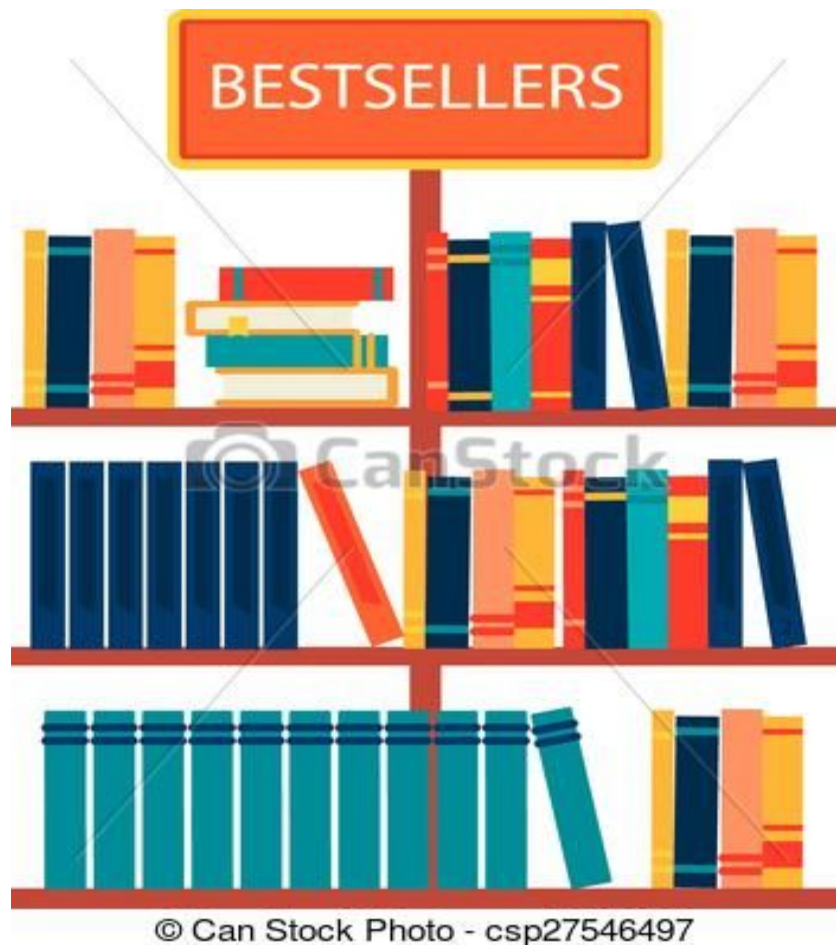


Ketaby Bookstore

online bookstore system



TEAMS Name

Ashraqat sheta 14

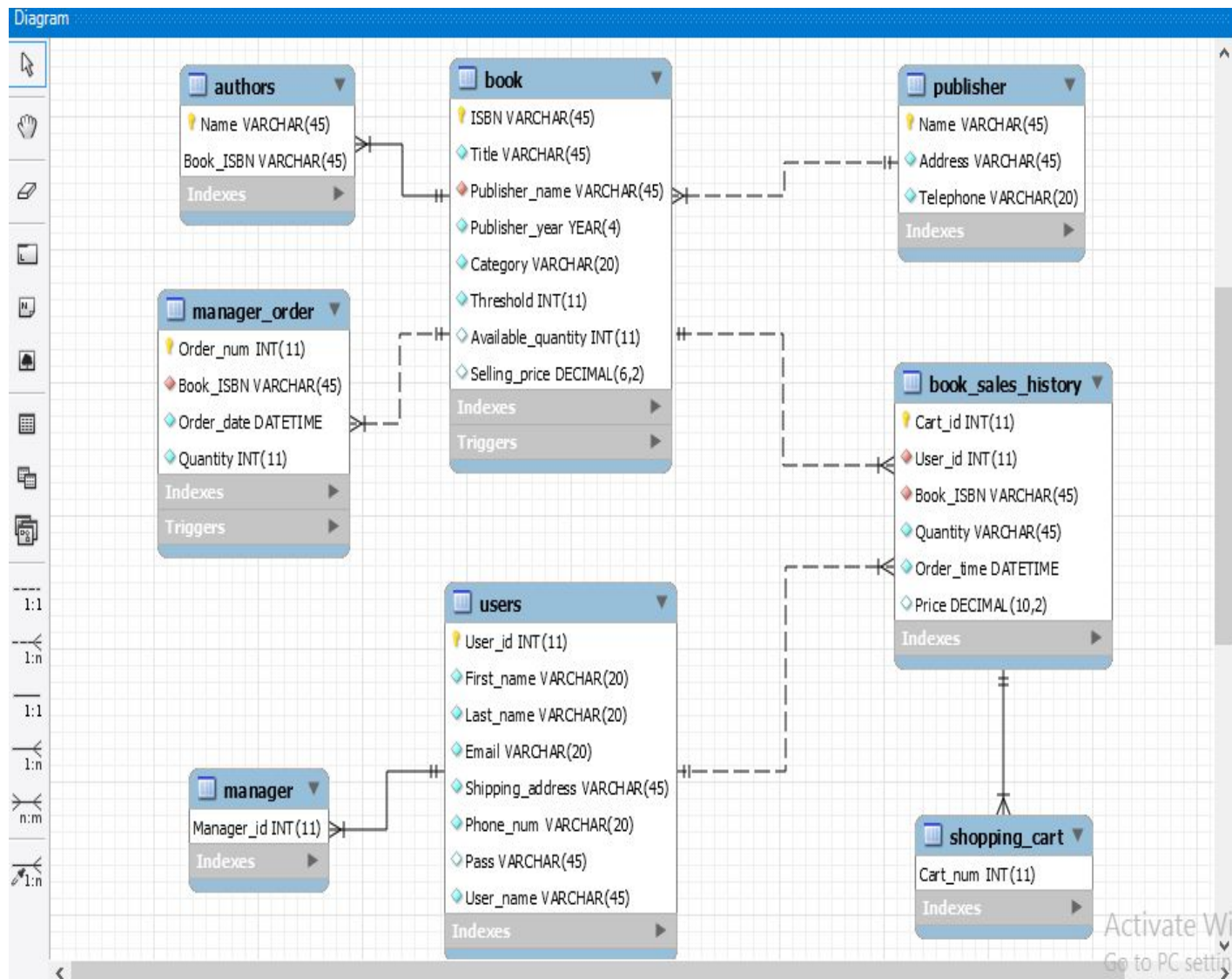
Fatma ibrahim 42

Marina zakaria 47

INTRODUCTION

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

The database ERD diagram



Detailed analysis

1. the triggers

trigger before update on book

The user cannot update the quantity of a book if this update will cause the quantity of a book in stock to be negative.

-Return exception is Available_Quantity be negative .

```
227
228 • USE `book_store`$$
229 • CREATE
230 DEFINER=`root`@`localhost`
231 TRIGGER `book_store`.`BOOK_BEFORE_UPDATE`
232 BEFORE UPDATE ON `book_store`.`book`
233 FOR EACH ROW
234 BEGIN
235   if(new.Available_quantity<0) THEN
236     signal sqlstate '45000' set message_text = 'ERROR THE QUANTITY NUMBER CANNOT BE NEGATIVE';
237   end if;
238 END$$
239
```

Trigger after update in book

the quantity of a book drops from above a given threshold

There is two case

- If no order of this book is place insert the different from threshold and available quantity
- If the quantity order is low to cover the gab insert order by quantity of threshold -available quantity -order quantity

```

208
209 DELIMITER $$
210 • USE `book_store`$$
211 • CREATE
212 DEFINER=`root`@`localhost`
213 TRIGGER `book_store`.`BOOK_AFTER_UPDATE`
214 AFTER UPDATE ON `book_store`.`book`
215 FOR EACH ROW
216 BEGIN
217   if(new.Available_quantity<new.Threshold)then
218     if(not exists(SELECT * from MANAGER_ORDER where Book_ISBN=new.ISBN))then
219       insert into MANAGER_ORDER (Book_ISBN,Order_date,Quantity) values(new.ISBN,now(),(new.Threshold-new.Available_Quantity));
220     else
221       if(sum_of_order_quantity(new.ISBN)+new.Available_quantity<new.Threshold)then
222         insert into MANAGER_ORDER (Book_ISBN,Order_date,Quantity) values(new.ISBN,now(),(new.Threshold-new.Available_Quantity-sum_of_order_quantity));
223       end if;
224     end if;
225   end if;
226 END$$
227

```

trigger before deletion from orders table

If the manager confirm the order the available quantity will increase by order value

```

238 • END$$
239
240 • USE `book_store`$$
241 • CREATE
242 DEFINER=`root`@`localhost`
243 TRIGGER `book_store`.`MANAGER_ORDER_BEFORE_DELETE_1`
244 BEFORE DELETE ON `book_store`.`manager_order`
245 FOR EACH ROW
246 BEGIN
247   update BOOK set
248   Available_quantity=BOOK.Available_quantity+OLD.Quantity where BOOK.ISBN=OLD.Book_ISBN;
249 END$$
250
251

```

2. procedures

Function to return sum of order Quantity from manager order by specific ISBN

```
190 DELIMITER ;
191
192 -----
193 -- function sum_of_order_quantity
194 -----
195
196 DELIMITER $$
197 • USE `book_store`$$
198 • CREATE DEFINER=`root`@`localhost` FUNCTION `sum_of_order_quantity`(B_ISBN varchar(45)) RETURNS int(11)
199     DETERMINISTIC
200 BEGIN
201     DECLARE sum_orders int;
202     SELECT sum(Quantity)into sum_orders from MANAGER_ORDER where Book_ISBN=B_ISBN;
203     RETURN sum_orders;
204 END$$
205
206 DELIMITER ;
```

Procedure to remove from book_sales_history the unused data

To make the system store last three month

```
179 -----
180 -- procedure save_less_than_three_month
181 -----
182
183 DELIMITER $$
184 • USE `book_store`$$
185 • CREATE DEFINER=`root`@`localhost` PROCEDURE `save_less_than_three_month`()
186 BEGIN
187     delete from book_sales_history where DATEDIFF(now(),Order_time)>90;
188 END$$
189
190 DELIMITER ;
191
```

3. Indices

We added Title and Category index on book to speed up searches for book

```
35  -----
36  CREATE TABLE IF NOT EXISTS `book_store`.`book` (
37    `ISBN` VARCHAR(45) NOT NULL,
38    `Title` VARCHAR(45) NOT NULL,
39    `Publisher_name` VARCHAR(45) NOT NULL,
40    `Publisher_year` YEAR(4) NOT NULL,
41    `Category` VARCHAR(20) NOT NULL,
42    `Threshold` INT(11) NOT NULL,
43    `Available_quantity` INT(11) NULL DEFAULT NULL,
44    `Selling_price` DECIMAL(6,2) NULL DEFAULT NULL,
45    PRIMARY KEY (`ISBN`),
46    INDEX `C_publisher_name` (`Publisher_name` ASC) VISIBLE,
47    INDEX `C_Title_idx` (`Title` ASC) VISIBLE,
48    INDEX `C_Category_idx` (`Category` ASC) VISIBLE,
49    CONSTRAINT `C_publisher_name`
50      FOREIGN KEY (`Publisher_name`)
51      REFERENCES `book_store`.`publisher` (`Name`)
52      ON DELETE RESTRICT
```


4. transaction controls

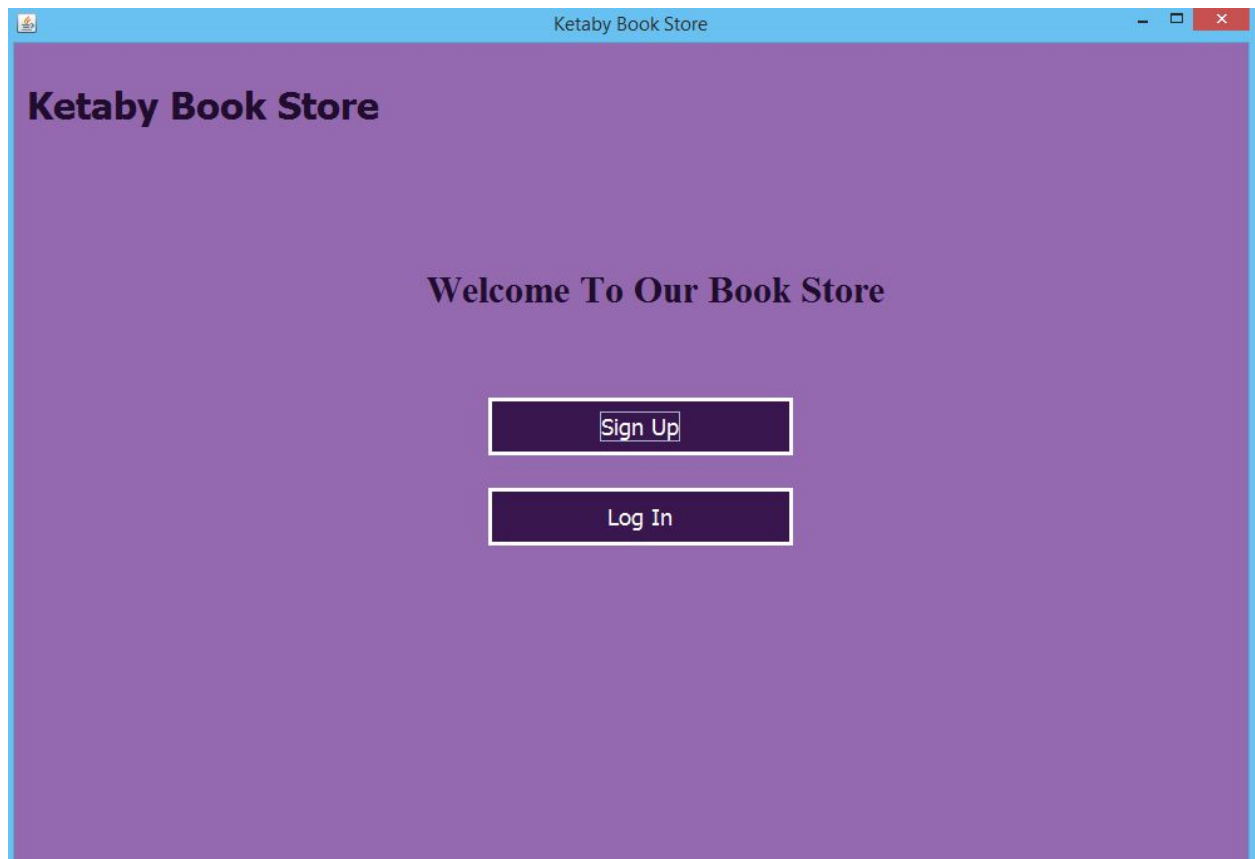
we made a transaction when the customer Checkout a shopping cart if the credit card number is true and customer confirm order the transaction will commit else

Will rollback

```
6 }
7 public LinkedList<String> Checkout_shopping_cart(String User_id){
8     LinkedList<String> Order_not_available=new LinkedList<String>();
9     String [][]book_available=get_available_cart_for_user(User_id);
10    int index=0;
11    try {
12        connection.setAutoCommit(false);
13        while(book_available[index][0]!=null&&index<20){
14            if(book_available[index][1]!=null){
15                String Sql2="UPDATE BOOK SET Available_quantity=Available_quantity-"+book_available[index][1]+
16                String Sql3="delete from SHOPPING_CART WHERE Cart_num="+book_available[index][2]+";";
17                System.out.println(Sql2);
18                System.out.println(Sql3);
19                stmt.executeUpdate(Sql2);
20                stmt.executeUpdate(Sql3);
21            }else{
22                Order_not_available.add(book_available[index][0]);
23            }
24            index++;
25        }
26    } catch (SQLException e) {
27        return null;
28    }
29    return Order_not_available;
30 }
31
32
33 }
34
35 public boolean if_user_is_verify_check_out(boolean verify,long Credit){
36     try{
37         if(verify){
38             if(isValid(Credit)){
39                 connection.commit();
40             }else{
41                 connection.rollback();
42                 return false;
43             }
44         }else{
45             connection.rollback();
46         }
47         connection.setAutoCommit(true);
48         return true;
49     }catch(SQLException e){
50         return false;
51     }
52 }
```

Sample screenshots

First page






Sign Up

Please Fill This Fields To Complete Sign Up Operation !

User Name	<input type="text" value="user10"/>
Password	<input type="password" value="...."/>
First Name	<input type="text" value="userfirst"/>
Last Name	<input type="text" value="usersecond"/>
E-mail	<input type="text" value="user10@example.com"/>
Phone Number	<input type="text" value="01223456789"/>
Shipping Address	<input type="text" value="Alex"/>

Message

 Successfully Sign Up Operation

OK

Submit

Back

Sign In

Email

ash@example.com

Password

....

Sign Up!

Submit

Back



Sign In

Email

ash@example.com

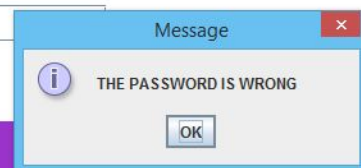
Password

...

Sign Up!

Submit

Back



Ketaby Book Store

ISBN	Title	Authors	Quantity	Price	Publisher_na...	Publishing_Y...	Category
22-44-05	lion	michel	15	750.00	ashraqat	2001-01-01	Geography
22-445477	lion	jhon	45	750.00	ashraqat	2001-01-01	Geography
22-445477	lion	michel	45	750.00	ashraqat	2001-01-01	Geography
22-66-7711	sea live	jhon1	35	600.00	ashraqat2	2004-01-01	Art
22-66-7711	sea live	michel1	35	600.00	ashraqat2	2004-01-01	Art
22-88-77	sea	jhon	40	750.00	ashraqat1	2003-01-01	Geography
22-88-77	sea	michel	40	750.00	ashraqat1	2003-01-01	Geography
33-55-66	banana	gamal	69	150.00	yara	2005-01-01	Geography
77-88-565	presiner of zin...	gamal	26	69.50	Richard	2007-01-01	Science

ISBN :

Quantity:

Add To Cart

More Actions

Edit Personal Information

Log Out



Ketaby Book Store

ISBN	Title	Publisher_na...	Publisher_year	Category	Threshold	Available_qua...	Selling_price
22-445477	lion	ashraqat	2001-01-01	Geography	15	45	750.00
22-88-77	sea	ashraqat1	2003-01-01	Geography	15	40	750.00

ISBN :

Quantity:

Add To Cart

More Actions

Edit Personal Information

Log Out



Search By:

Author

Author

jhon

Search

Ketaby Book Store

ISBN	Title	Publisher_na...	Publisher_year	Category	Threshold	Available_qua...	Selling_price
22-445477	lion	ashraquat	2001-01-01	Geography	15	45	750.00
22-88-77	sea	ashraquat1	2003-01-01	Geography	15	40	750.00

ISBN :

Quantity:

Add To Cart

More Actions

Message

Book is Added to Shopping Cart

OK

Edit Personal Information

Log Out

Search By:

Author

jhon

Search

Ketaby Book Store

Shopping Cart

Cart_id	Book_ISBN	Quantity	Price	Order_time
41	22-88-77	10	7500.00	2019-05-08 19:37...
42	22-445477	10	7500.00	2019-05-08 19:38...
43	22-44-05	3	2250.00	2019-05-08 19:38...
44	22-88-77	1	750.00	2019-05-08 19:38...

Back

Remove

Total Price

18000.00

Check Out

Ketaby Book Store

Shopping Cart

Cart_id	Book_ISBN	Quantity	Price	Order_time
41	22-88-77	10	7500.00	2019-05-08 19:37...
42	22-445477	10	7500.00	2019-05-08 19:38...
43	22-44-05	3	2250.00	2019-05-08 19:38...
44	22-88-77	1	750.00	2019-05-08 19:38...

Back

Remove

Total Price 18000.00

Check Out

Message



The number of credit card is invalid

OK

326

Expiry Date:

04-04-2020

Submit

Ketaby Book Store

Shopping Cart

Cart_id	Book_ISBN	Quantity	Price	Order_time
41	22-88-77	10	7500.00	2019-05-08 19:37...
42	22-445477	10	7500.00	2019-05-08 19:38...
43	22-44-05	3	2250.00	2019-05-08 19:38...
44	22-88-77	1	750.00	2019-05-08 19:38...

Back

Remove

Total Price

18000.00

Check Out

Message



The Books Will Be Delivered Within 5 Days

OK

Expiry Date:

04-04-2020

Submit

Ketaby Book Store

ISBN	Title	Authors	Quantity	Price	Publisher_na...	Publishing_Y...	Category
22-44-05	lion	michel	12	750.00	ashraquat	2001-01-01	Geography
22-445477	lion	jhon	35	750.00	ashraquat	2001-01-01	Geography
22-445477	lion	michel	35	750.00	ashraquat	2001-01-01	Geography
22-66-7711	sea live	jhon1	35	600.00	ashraquat2	2004-01-01	Art
22-66-7711	sea live	michel1	35	600.00	ashraquat2	2004-01-01	Art
22-88-77	sea	jhon	29	750.00	ashraquat1	2003-01-01	Geography
22-88-77	sea	michel	29	750.00	ashra		
33-55-66	banana	gamal	69	150.00	yara		
77-88-565	presiner of zin...	gamal	26	69.50	Richa		

Edit Personal Information

Log Out



By:

Search

ISBN :

Quantity:

Add To Cart

More Actions

Modify Books

Place Orders

Add Manager

View Reports

Place Orders

Orders Table

Order_num	Book_ISBN	Order_date	Quantity
1	225-66555	2019-04-28 01:52:11.0	6
2	55-66-2	2019-04-28 01:57:43.0	25
8	22-66-7711	2019-05-04 15:36:26.0	100
10	55-66-2	2019-05-04 19:07:37.0	26
11	225-66555	2019-05-04 22:06:27.0	9
13	77-88-565	2019-05-08 17:53:13.0	2
15	22-44-05	2019-05-08 19:40:45.0	3

ISBN

Quantity

Insert

Back


Confirm

Place Orders

Orders Table

Order_num	Book_ISBN	Order_date	Quantity
1	225-66555	2019-04-28 01:52:11.0	6
2	55-66-2	2019-04-28 01:57:43.0	25
8	22-66-7711	2019-05-04 15:36:26.0	100
10	55-66-2	2019-05-04 19:07:37.0	26
13	77-88-565	2019-05-08 17:53:13.0	2
15	22-44-05	2019-05-08 19:40:45.0	3

Message

 Order Confirmed

OK

ISBN

Quantity

Insert

Back

Confirm

Place Orders

Orders Table

Order_num	Book_ISBN	Order_date	Quantity
1	225-66555	2019-04-28 01:52:11.0	6
2	55-66-2	2019-04-28 01:57:43.0	25
8	22-66-7711	2019-05-04 15:36:26.0	100
10	55-66-2	2019-05-04 19:07:37.0	26
13	77-88-565	2019-05-08 17:53:13.0	2
15	22-44-05	2019-05-08 19:40:45.0	3
16	22-44-05	2019-05-08 19:44:12.0	20

ISBN

22-44-05

Quantity

20

Insert

Back

Confirm

Add New Manager

User_id	First_name	Last_name	Email	Shipping_add...	phone_num	User_name
3	ash	sheta	ash@example...	dmanhour	012563478	ash1
4	user2first	user2last	user2@exam...	alex	0120255565	user2
5	user3first	user3last	user3@exam...	alex	0120255565	user3
6	user4first	user4last	user4@exam...	dmanhour	01025556545	user4
7	fatma	ibrahim	fatmbrahm@g...	elbehaira*ras...	0120275751	fatma_ibrahim
11	user	9	user9@exam...	alex	0124578963	user9
13	user	8	user8@exam...	alex	0120453215	user8
14	userfirst	usersecond	user10@exa...	Alex	01223456789	user10

Back

Promote As A Manager

View Reports

Book_ISBN	Quantity	Price
22-44-05	20	15000.00
22-44-05	20	15000.00
22-66-7711	5	3000.00
33-55-66	7	1050.00
55-66-2	2	22.40
554-5556-666	4	800.00
554-5556-666	4	800.00
77-88-565	7	486.50
33-55-66	2	300.00
33-55-66	2	300.00
33-55-66	2	300.00
33-55-66	5	750.00
77-88-565	5	347.50
55-66-2	1	11.20
225-66555	4	481.00
225-66555	4	481.00
77-88-565	12	834.00
22-445477	12	9000.00
33-55-66	5	750.00
22-66-7711	5	3000.00
33-55-66	5	750.00
22-88-77	10	7500.00
22-88-77	10	7500.00
22-66-7711	10	6000.00
22-44-05	5	3750.00
22-445477	5	3750.00
22-445477	16	12000.00
22-88-77	10	7500.00
22-88-77	10	7500.00
22-445477	10	7500.00

Back

Show Total Sales

Show Top 5 Customers

Show Top 10 Sold Books

[View Reports](#)

User_id	User_name	total
3	ash1	79050.00
6	user4	41956.20
13	user8	3139.00
4	user2	2437.40
5	user3	2367.50

[Back](#)

Show Total Sales

Show Top 5 Customers

Show Top 10 Sold Books

[View Reports](#)

Book_ISBN	total
22-445477	55.0
22-44-05	48.0
22-88-77	41.0
77-88-565	31.0
33-55-66	28.0
22-66-7711	20.0
554-5556-666	8.0
225-66555	8.0
55-66-2	3.0

[Back](#)

Show Total Sales

Show Top 5 Customers

Show Top 10 Sold Books

Ketaby Book Store

ISBN	Title	Authors	Publishi...	Category	Quantity	Price	Threshold	Publishe...	Publishe...	Publishe...
22-44-05	lion	michel	2001-01...	Geograp...	12	750.00	15	ashraqat	cairo st ...	012563...
22-4454...	lion	jhon	2001-01...	Geograp...	35	750.00	15	ashraqat	cairo st ...	012563...
22-4454...	lion	michel	2001-01...	Geograp...	35	750.00	15	ashraqat	cairo st ...	012563...
22-66-7...	sea live	jhon1	2004-01...	Art	35	600.00	22	ashraqat2	cairo st ...	01253486
22-66-7...	sea live	michel1	2004-01...	Art	35	600.00	22	ashraqat2	cairo st ...	01253486
22-88-77	sea	jhon	2003-01...	Geograp...	29	750.00	15	ashraqat1	cairo st ...	012563...
22-88-77	sea	michel	2003-01...	Geograp...	29	750.00	15	ashraqat1	cairo st ...	012563...
33-55-66	banana	gamal	2005-01...	Geograp...	69	150.00	55	yara	cairo jjj88	010302...
77-88-565	presiner...	gamal	2007-01...	Science	28	69.50	30	Richard	cairo kkk	012302...

Back

Find With ISBN

ISBN

Title

Author(s)

Publishing Year

Category

Quantity

Price

Threshold

Publisher Name

Publisher Address

Publisher Phone

Add

Update

Ketaby Book Store

ISBN	Title	Authors	Publishi...	Category	Quantity	Price	Threshold	Publishe...	Publishe...	Publishe...
22-44-05	lion	michel	2001-01...	Geograp...	12	750.00	15	ashraqat	cairo st ...	012563...
22-4454...	lion	jhon	2001-01...	Geograp...	35	750.00	15	ashraqat	cairo st ...	012563...
22-4454...	lion	michel	2001-01...	Geograp...	35	750.00	15	ashraqat	cairo st ...	012563...
22-66-7...	sea live	jhon1	2004-01...	Art	35	600.00	22	ashraqat2	cairo st ...	01253486
22-66-7...	sea live	michel1	2004-01...	Art	35	600.00	22	ashraqat2	cairo st ...	01253486
22-88-77	sea	jhon	2003-01...	Geograp...	29	750.00	15	ashraqat1	cairo st ...	012563...
22-88-77	sea	michel	2003-01...	Geograp...	29	750.00	15	ashraqat1	cairo st ...	012563...
33-55-66	banana	gamal	2005-01...	Geograp...	69	150.00	55	yara	cairo jjj88	010302...
77-88-565	presiner...	gamal	2007-01...	Science	28	69.50	30	Richard	cairo kkk	012302...

Back

Find With ISBN

ISBN

Title

Author(s)

Publishing Year

Category

Quantity

Price

Threshold

Publisher Name

Publisher Address

Publisher Phone

Add

Update

Message



Successfully Updated

OK

Ketaby Book Store

ISBN	Title	Authors	Publishi...	Category	Quantity	Price	Threshold	Publishe...	Publishe...	Publishe...
22-44-05	lion	michel	2001-01...	Geograp...	12	750.00	60	ashraqat	cairo st ...	012563...
22-4454...	lion	jhon	2001-01...	Geograp...	35	750.00	15	ashraqat	cairo st ...	012563...
22-4454...	lion	michel	2001-01...	Geograp...	35	750.00	15	ashraqat	cairo st ...	012563...
22-66-7...	sea live	jhon1	2004-01...	Art	35	600.00	30	ashraqat3	cairo st ...	01253486
22-66-7...	sea live	michel1	2004-01...	Art	35	600.00	30	ashraqat3	cairo st ...	01253486
22-88-77	sea	jhon	2003-01...	Geograp...	29	750.00	15	ashraqat1	cairo st ...	012563...
22-88-77	sea	michel	2003-01...	Geograp...	29	750.00	15	ashraqat1	cairo st ...	012563...
256333	sea live	jhon1	2007-01...	Art	35	600.00	30	ashraqat3	cairo st ...	01253486
33-55-66	banana	gamal	2005-01...	Geograp...	69	150.00	55	yara	cairo jjj88	010302...
77-88-565	presiner...	gamal	2007-01...	Science	28	69.50	30	Richard	cairo kkk	012302...

ISBN	<input type="text" value="256333"/>
Title	<input type="text" value="sea live"/>
Author(s)	<input type="text" value="jhon1"/>
Publishing Year	<input type="text" value="2007"/>
Category	<input type="text" value="Art"/>
	<input type="text" value="35"/>
	<input type="text" value="600.00"/>
	<input type="text" value="30"/>
Publisher Name	<input type="text" value="ashraqat3"/>
Publisher Address	<input type="text" value="cairo st 55 elnaser sity1"/>
Publisher Phone	<input type="text" value="01253486563"/>

Message



Book Added

OK

Back

Find With ISBN

Add

Update

Edit Account Information

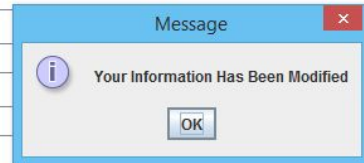
User Name	<input type="text" value="ash1"/>
Password	<input type="password" value="...."/>
First Name	<input type="text" value="ash"/>
Last Name	<input type="text" value="sheta"/>
E-mail	<input type="text" value="ash@example.com"/>
Phone Number	<input type="text" value="012563478"/>
Shipping Address	<input type="text" value="dmanhour"/>

Save

Back

Edit Account Information

User Name	<input type="text" value="Ashraquat"/>
Password	<input type="password" value="...."/>
First Name	<input type="text" value="ash"/>
Last Name	<input type="text" value="sheta"/>
E-mail	<input type="text" value="ash@example.com"/>
Phone Number	<input type="text" value="01256347812"/>
Shipping Address	<input type="text" value="dmanhour"/>



Save

Back

Total Book

The total sales for books in the previous month

Book_ISBN	Quantity	Price
22-44-05	20	15000.00
22-44-05	20	15000.00
22-66-7711	5	3000.00
33-55-66	7	1050.00
55-66-2	2	22.40
554-5556-666	4	800.00
554-5556-666	4	800.00
77-88-565	7	486.50
33-55-66	2	300.00
33-55-66	2	300.00
33-55-66	2	300.00
33-55-66	5	750.00
77-88-565	5	347.50
55-66-2	1	11.20
225-66555	4	481.00
225-66555	4	481.00
77-88-565	12	834.00
22-445477	12	9000.00
22-66-7711	5	3000.00
33-55-66	5	750.00
22-88-77	10	7500.00
22-88-77	10	7500.00
22-66-7711	10	6000.00
22-44-05	5	3750.00
22-445477	5	3750.00
22-445477	16	12000.00
22-88-77	10	7500.00
22-88-77	10	7500.00
22-445477	10	7500.00
22-44-05	3	2250.00
22-88-77	1	750.00

Top 5 Customer

Add The top 5 customers

User_id	User_name	total
3	Ashraqat	79050.00
6	user4	41956.20
13	user8	3139.00
4	user2	2437.40
5	user3	2367.50

Top 10 Selling Book

The top 10 selling books for

Book_ISBN	total
22-445477	55.0
22-44-05	48.0
22-88-77	41.0
77-88-565	31.0
33-55-66	28.0
22-66-7711	20.0
554-5556-666	8.0
225-66555	8.0
55-66-2	3.0

