图书（书号、书名、出版社号、图书类别、作者、图书简介、价格、总量、余量）

出版社（出版社号，出社版名，出版社地址）

管理员（管理员号，管理员姓名，管理员密码）

用户（借书证号，用户姓名，用户密码，性别，学院，专业）

借阅归还（订单号（自增），借阅日期，归还日期，借阅书号，借阅用户号，借阅数量）

零售（零售号（自增），零售书号，购买人号，购买时间，购买数量）

**1.借阅时自动修改图书或期刊的在册数量的触发器 brrow\_1：**

CREATE TRIGGER brrow\_1

AFTER INSERT ON br

FOR EACH ROW

BEGIN

UPDATE book SET book.Bmargin=book.Bmargin-New.number

WHERE book.Bid=New.bookid;

END;

**2.归还时自动修改图书或期刊的在册数量的触发器return\_1：**

实现方式1：

CREATE TRIGGER return\_1

AFTER UPDATE ON br

FOR EACH ROW

BEGIN

UPDATE book SET book.Bmargin=book.Bmargin+New.number

WHERE book.Bid=New.bookid AND (New.returndate is not NULL) AND (Old.returndate is NULL);

END;

实现方式2：

delimiter $$

CREATE TRIGGER return\_12

AFTER UPDATE ON br

FOR EACH ROW

BEGIN

IF (New.return is not NULL) AND (Old.return is NULL)

THEN UPDATE book SET book.Bmargin=book.Bmargin + New.number WHERE book.Bid=New.bookid;

END IF;

END $$

delimiter ;

**3.零售时修改图书或期刊的总量和在册数量的触发器shop\_1：**

CREATE TRIGGER shop\_1

AFTER INSERT ON shop

FOR EACH ROW

BEGIN

UPDATE book SET book.Bmargin=book.Bmargin-New.shopnum,book.Btotal=book.Btotal-New.shopnum

WHERE book.Bid=New.sbookid;

END;

**4.指定时间段内各种图书、期刊的借阅、零售数量的存储过程totalSearch：**

CREATE DEFINER=`root`@`localhost` PROCEDURE `totalSearch`(IN `stime` datetime,IN `dtime` datetime)

BEGIN

SELECT book.Bname,br.number,shop.shopnum

FROM book,br,shop

WHERE book.Bid=br.bookid AND br.bookid=shop.sbookid

AND (br.borrow BETWEEN stime AND dtime)

AND (shop.shoptime BETWEEN stime AND dtime);

END

**5.统计指定客户借阅情况（书名（刊物名）、数量）的存储过程userBorrow：**

CREATE DEFINER=`root`@`localhost` PROCEDURE `userBorrow`(IN `id` int)

BEGIN

SELECT `user`.uname,book.Bname,br.number

FROM `user`,br,book

WHERE `user`.uid=id AND br.userid=`user`.uid AND br.bookid=book.Bid;

END

**6.统计指定客户购买情况（书名（刊物名）、数量）的存储过程userShop：**

CREATE DEFINER=`root`@`localhost` PROCEDURE `userShop`(IN `id` int)

BEGIN

SELECT `user`.uname,book.Bname,shop.shopnum

FROM `user`,shop,book

WHERE `user`.uid=id AND shop.suserid=`user`.uid AND shop.sbookid=book.Bid;

END