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| **《数据库系统原理》实验报告（九）** | | | | | |
| **题目： oracle使用** | | | | | |
| 学号 | 1850001 | 姓名 | 魏鹏程 | 日期 | 2020/12/11 |
| **实验环境：Redhat5**  **VMware workstation 15 pro**  **Oracle** | | | | | |
| **实验步骤及结果截图：**   1. 创建三个表，注意定义主码完整性约束和引用完整性约束  |  |  | | --- | --- | | Card | | | 卡号 | eno | | 姓名 | name | | 班级 | class |  |  |  | | --- | --- | | Books | | | 书号 | bno | | 书名 | bname | | 作者 | author | | 单价 | price | | 库存册数 | quantity |  |  |  | | --- | --- | | Borrow | | | 卡号 | eno | | 书号 | bno | | 还书日期 | rdate |   创建card表  create table card(  eno varchar2(10) primary key,  name varchar2(20) ,  class int  );    创建books表  create table books(  bno varchar2(20) primary key,  bname varchar2(20),  author varchar2(20),  price int,  quantity int  );  创建borrow表    create table borrow(  eno varchar2(10),  bno varchar2(20),  rdate timestamp,  constraint br\_c\_1 foreign key (eno) references card(eno),  constraint br\_c\_2 foreign key (bno) references books(bno)  );    插入数据  insert into card (eno,name,class) values ('1','alen',1);  insert into card (eno,name,class) values ('2','eason',2);  insert into card (eno,name,class) values ('3','black',1);  insert into card (eno,name,class) values ('4','brown',3);  insert into card (eno,name,class) values ('5','alex',1);  insert into card (eno,name,class) values ('6','rex',2);    insert into books (bno,bname,author,price,quantity) values ('1','随便什么','alpha1',10,6);  insert into books (bno,bname,author,price,quantity) values ('2','any1','alpha2',11,6);  insert into books (bno,bname,author,price,quantity) values ('3','any2','alpha3',12,5);  insert into books (bno,bname,author,price,quantity) values ('4','any3','alpha4',13,4);  insert into books (bno,bname,author,price,quantity) values ('5','any4','alpha5',14,3);  insert into books (bno,bname,author,price,quantity) values ('6','any5','alpha6',15,4);  insert into books (bno,bname,author,price,quantity) values ('7','any6','alpha7',16,5);    insert into borrow (eno,bno,rdate) values ('1','1','27-Jun-2007 6:57:30');  insert into borrow (eno,bno,rdate) values ('1','1','27-Jun-2007 6:57:30');  insert into borrow (eno,bno,rdate) values ('1','2','27-Jun-2007 6:57:31');  insert into borrow (eno,bno,rdate) values ('1','3','27-Jun-2007 6:57:32');  insert into borrow (eno,bno,rdate) values ('1','4','27-Jun-2007 6:57:33');  insert into borrow (eno,bno,rdate) values ('1','5','27-Jun-2007 6:57:34');  insert into borrow (eno,bno,rdate) values ('1','6','27-Jun-2007 6:57:35');  insert into borrow (eno,bno,rdate) values ('2','1','27-Jun-2007 6:57:36');  insert into borrow (eno,bno,rdate) values ('2','2','27-Jun-2007 6:57:37');  insert into borrow (eno,bno,rdate) values ('3','1','27-Jun-2007 6:57:38');     1. 找出借书超过5本的读者，输出借书卡号以及所借图书册数   select eno as"card no",count(\*) as "borrow num"  from borrow  group by eno  having count(\*)>5     1. 查询借阅了书名为“随便什么”一书的读者，输出卡号、姓名和班级，按照卡号降序输出   select eno,name,class  from borrow natural join books natural join card  where bname='随便什么'  order by eno desc     1. 查询过期未归还图书，输出卡号、书号和归还日期   假设现在为27-Jun-2007 6:57:33  select eno,bno,rdate  from borrow  where rdate<'27-Jun-2007 6:57:33'     1. 查询书名包括“随便什么”的关键词的图书，输出书号和书名   select bno,bname  from books  where bname like '%随%便%什%么%'     1. 查询现有图书中价格最高的图书，输出书名和书号   select bname,bno  from books  where price=(  select max(price)  from books  )     1. 将1班和2班同学的还书日期延长一周   update borrow  set rdate=rdate+interval'7' day  where eno in(  select eno  from card  where class=1 or class =2  )       1. 在books表中删除当前无人借阅的图书的记录   delete from books  where bno not in  (  select bno  from borrow  )       1. 建立一个和borrow表相同的borrow\_new表，在borrow表上建立一个触发器，完成如下功能：如果读者借阅的图书名为“随便什么”就将借阅记录保存在borrow\_new中   create table borrow\_new as (  select \* from borrow  );    create or replace trigger borrow\_in  after insert on borrow  for each row  declare  temp1 books.bno%type;  begin  select bno into temp1 from books where bname='随便什么';  if temp1=:new.bno  then  insert into borrow\_new (eno,bno,rdate) values (:new.eno,:new.bno,:new.rdate);  end if;  end;  /    触发器效果如下图  insert into borrow (eno,bno,rdate) values ('4','1','27-Jun-2007 6:57:38');  select \* from borrow\_new     1. 对card表进行如下修改：将name最大列宽增加4位，增加一列“专业，pname”。   alter table card  add (pname varchar2(20))  modify(name varchar(24)); | | | | | |
| **出现的问题：**   1. **oracle查询列重命名中文过长会出现乱码** 2. **timestamp输入时不支持数字型月份** 3. **触发器创建时用new.eno这类的值赋值报错** | | | | | |
| **解决方案：**   1. **改为英文重命名** 2. **timestamp插入时月份输入英文简写** 3. **需要使用：来引用具体的值** | | | | | |