

数据库实验一

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实验任务

(1)创建数据库表 CUSTOMERS(CID, CNAME,CITY, DISCNT), 数据库表AGENTS(AID, ANAME,CITY, PERCENT), 数据库表 PRODUCTS(PID, PNAME), 其中, CID, AID, PID分别是各表的主键, 具有唯一性约束。

(2)创建数据库表 ORDERS(ORDNA, MONTH,CID,AID,PID,QTY, DOLLARS)。其中, ORDNA是主键, 具有唯一性约束。CID, AID, PID是外键, 分别参照的是表 CUSTOMERS的CID字段, 表 AGENTS的AID字段, 表 PRODUCTS的PID字段。

(3)增加数据库表 PRODUCTS的三个属性列: CITY, QUANTITY, PRICE。

(4)为以上4个表建立各自的按主键增序排列的索引。

(5)取消步骤(4)建立的4个索引。

解决方案

(1)

```
use EXP_1
create table CUSTOMERS
(CID char(8) not null unique,
CNAME char(20),
CITY char(10),
DISCNT float(10),
primary key(CID))
create table AGENTS
(AID char(8) not null unique,
ANAME char(20),
CITY char(10),
PER float(10),
primary key(AID))
create table PRODUCTS
(PID char(8) not null unique,
PNAME char(20),
primary key(PID))
```

```
EXP_1.sql - (local).EXP_1 (KON\zty (56))
use EXP_1
create table CUSTOMERS
(CID char(8) not null unique,
CNAME char(20),
CITY char(10),
DISCNT float(10),
primary key(CID))
create table AGENTS
(AID char(8) not null unique,
ANAME char(20),
CITY char(10),
PER float(10),
primary key(AID))
create table PRODUCTS
(PID char(8) not null unique,
PNAME char(20),
primary key(PID))
```

消息
命令已成功完成。

(2)

```
create table ORDERS
(ORDNA char(20) not null unique,
MON char(20),
QTY char(20),
DOLLARS char(20),
CID char(8) not null unique,
AID char(8) not null unique,
PID char(8) not null unique,
primary key(ORDNA),
foreign key(CID) references CUSTOMERS on delete cascade,
foreign key(AID) references AGENTS on delete cascade,
foreign key(PID) references PRODUCTS on delete cascade)
```

EXP_1.sql - (local).EXP_1 (KON\zty (56))

```
create table ORDERS
(ORDNA char(20) not null unique,
MON char(20),
QTY char(20),
DOLLARS char(20),
CID char(8) not null unique,
AID char(8) not null unique,
PID char(8) not null unique,
primary key(ORDNA),
foreign key(CID) references CUSTOMERS on delete cascade,
foreign key(AID) references AGENTS on delete cascade,
foreign key(PID) references PRODUCTS on delete cascade)
```

消息
命令已成功完成。

(3)

```
alter table PRODUCTS add CITY char(10)
alter table PRODUCTS add QUANTUTY char(10)
alter table PRODUCTS add PRICE float(10)
```

EXP_1.sql - (local).EXP_1 (KON\zty (56))

```
alter table PRODUCTS add CITY char(10)
alter table PRODUCTS add QUANTUTY char(10)
alter table PRODUCTS add PRICE float(10)
```

消息
命令已成功完成。

(4)

```
create index a_idx on AGENTS(AID)
create index c_idx on CUSTOMERS(CID)
create index or_idx on ORDERS(ORDNA)
create index p_idx on PRODUCTS(PID)
```

EXP_1.sql - (local).EXP_1 (KON\zty (56))

```
create index a_idx on AGENTS(AID)
create index c_idx on CUSTOMERS(CID)
create index or_idx on ORDERS(ORDNA)
create index p_idx on PRODUCTS(PID)
```

消息
命令已成功完成。

(5)

```
drop index AGENTS.a_idx  
drop index CUSTOMERS.c_idx  
drop index ORDERS.or_idx  
drop index PRODUCTS.p_idx
```

