SQL

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#查询购买了所有产品的顾客（pid=1~4）

```
select cid
from orders o
group by cid
having count(DISTINCT pid)=(
select count(pid)
from products
);
```

重点：例5.60，将所有订货总金额大于2000的顾客折扣率增加百分之1.1

```
update customers
set discnt = discnt*1.1
where cid in
(
select cid
from orders
group by cid
having sum(dollars)>1000
);
```

```
create table student(
sno char(255) not null primary KEY,
sname char(255),
city char(10),
sex char(255),
department char(255),
check sex in ('男','女')
)


create table course
(
cno char(255) not null primary KEY,
cname char(255)

)

create table sc
(
sno char(255) ,
cno char(255),
grade float,
foreign key(sno) references student(sno),
foreign key(cno) references course(cno),
check (sno is not  NULL)          -- 注意：不能用！ = 只能用is not in

)
```

-- 姓张学生

```
select *
from student
where sname like '张%'    -- 字符串比较要用like
```

-- 各个学院的平均成绩

```
select department,AVG(sc.grade)   -- group by 必须与sum avg min max 这些一起使用
from student,sc
where student.sno  = sc.sno
GROUP BY department
```

-- 输出不同学院平均成绩85以上的学生个数

```
select department,count( sc.sno)   -- group by 必须与sum avg min max 这些一起使用
from student,sc
where student.sno  = sc.sno
GROUP BY department
having avg(sc.grade)>=85     -- having 筛选groupby以后的，必须与avg,count，sum这些一起用
```

-- 输出不同学院90分以上的学生个数

```
select department,count(distinct sc.sno)
from student,sc
where student.sno  = sc.sno and sc.grade>=90
GROUP BY department
```

-- 成绩降序排列

```
select sname,grade
from sc,student
where sc.sno = student.sno
order by grade desc -- 降序  asc升序
```

-- 给所有计算机学院的学生加两分

```
update sc
set grade = grade + 2
where sno IN    -- 嵌套查询，in表示是否处于某个集合中！
(
select sno
from student
where department = '计算机科学与技术'
)
```

--选出上了所有课程的学生

```
SELECT s.sname
FROM student s
JOIN sc ON s.sno = sc.sno
GROUP BY s.sno
HAVING COUNT(DISTINCT sc.cno) = (SELECT COUNT(*) FROM course);      --按学号分组，某个学号所选课程数等于课程表的课程数量
```