

sql 语句练习

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原文链接: <https://ld246.com/article/1569467675115>

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数据库题目练习记录

csdn: https://blog.csdn.net/qq_41196190/article/details/101428660

1. 数据库中union和union all的区别

- union: 对两个结果集进行并集操作, 不包括重复行, 同时默认规则排序
- union all: 对两个结果集进行并集操作, 包括重复行, 不进行排序,

总的来说, 两者都是取并集, 但是union all 重复的行会全部显示出来而不是只显示一个

2. S(sno,sname) 学生表, sno为学号, sname为姓名

C(cno,cname,cteacher) 课程表。cno为课程号, cname为课程名, cteacher为任课教师

SC(snc,cno,sgrade) 选课关系表, sgrade为成绩

2.1 找出没有选修过“李明”老师讲授课程的所有学生姓名

```
select sname
from s
where sno not in(select distinct(sno) from sc

                where cno in(

                    select cno from c

                    where cteacher="李明"

                ))
```

或者

```
select sname
from s
where not exists(select * from S,C,SC

                where S.sno = SC.sno and C.cno = Sc.cno and c.cteacher = "李明"

                )
```

2.2 列出有两门以上不及格课程的学生姓名及其平均成绩

```
select s.sname,ave(scgrade)
from s,sc, (select cno from sc where scgrade<60 group by sno having count(distinct cno)>=2)
A
where s.sno=a.sno and sc.sno=a.sno
group by s.sno,s.sname
```

2.3 列出既学过课程名为“ 1 ”的课程，又学过课程名为“ 2 ”的课程的所有学生姓名

```
select A.sno,A.sname
from (select sno,sname from sc where cno =1) a,
     (select sno,sname from sc where cno =2) b
where a.sno=b.sno
或者
select s.sno,s.sname
from s,(select sc.sno from sc,c
        where sc.cno=c.cno and c.cname in(1,2)
        group by sno
        having count(distinct CNO)=2
       )sc
where s.sno=sc.sno
```

2.4 列出1号课程成绩比2号课程成绩高的学号及其1号课程和2号程的成绩

```
select sc1.sno,sc1.scgrade as "1号课程成绩",sc2.scgrade as "2号课程成绩"
from sc sc1,sc sc2
where sc1.cno=1 and sc2.cno=2 and sc1.sno=sc2.sno
```

```
and sc1.scgrade>sc2.scgrade
```

如果有错误，请大佬提出