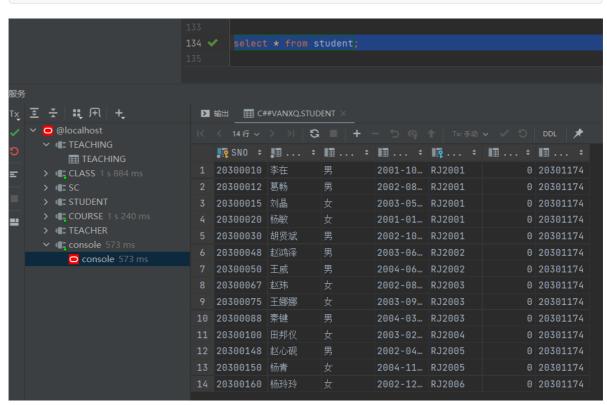
# 实验报告2-20301174-万兴全

报告内容描述数据操作详细过程,包含SQL命令及执行结果的展示;每题5分。

使用SQL命令执行如下操作:

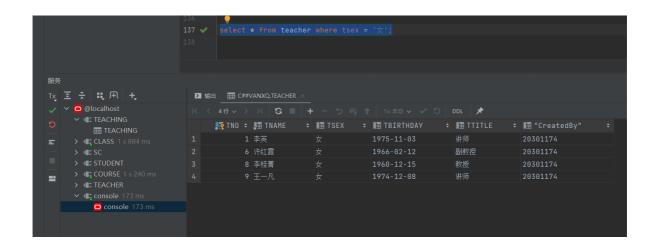
(1) 查询所有同学的所有基本信息

select \* from student;



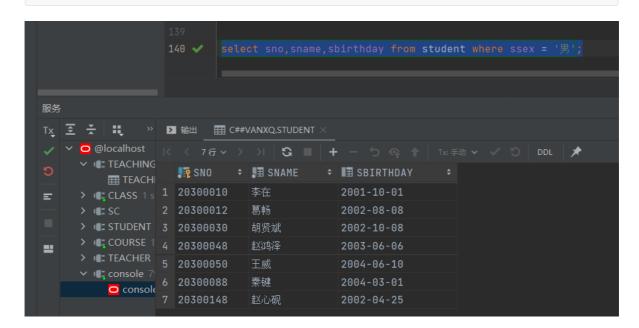
(2) 查询所有女教师的所有信息

```
select * from teacher where tsex = '女';
```



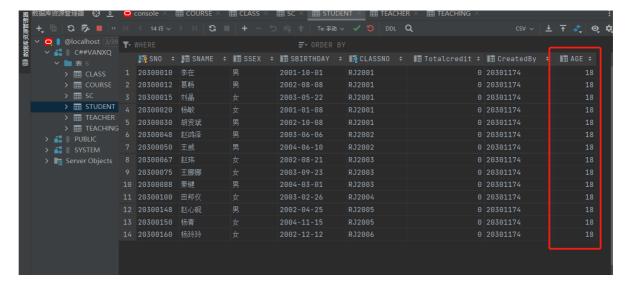
(3) 查询所有男同学的学号、姓名、出生日期

select sno, sname, sbirthday from student where ssex = '男';



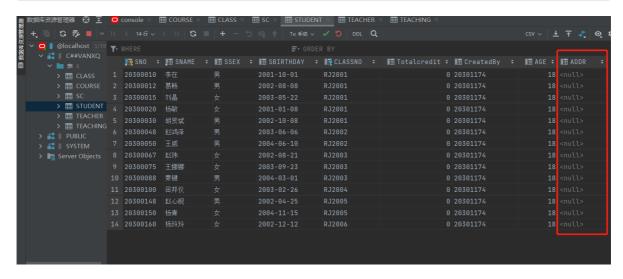
(4) 在基本表student中为age列,增加默认值为18

```
alter table STUDENT add age integer default 18;
```



(5) 在基本表Student中增加addr: varchar(20)列,然后将其长度由20改为25

```
alter table STUDENT
   add addr varchar(20);
alter table STUDENT
   modify ADDR VARCHAR2(25);
```

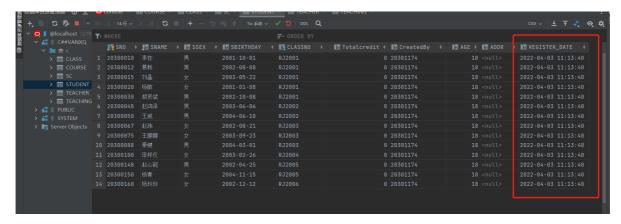


(6) 在基本表student中增加register\_date: date列,并为其设置默认值为当前系统时间,再删除该列

#### 先增加并设置

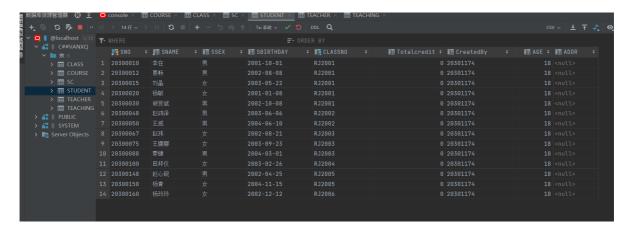
```
alter table STUDENT

add register_date date default sysdate;
```



# 再删除

```
alter table STUDENT drop column register_date;
```



(7) 在基本表course中将cname设置为唯一值 (unique)

```
alter table COURSE add unique (cname);
```

(8) 基本表course中创建索引: (cno desc)

```
create index cno_index on COURSE(cno desc);
```

```
C##VANXQ> create index cno_desc on course(cno desc)
[2022-04-03 14:46:47] 在 57 ms 内完成
```

(9) 在基本表Student中增加约束条件: 男生年龄小于24岁, 女生年龄小于22岁。

```
alter table STUDENT add check ( (ssex='男'and age<24)or (ssex='女'and age<22));
```

```
C##VANXQ> alter table STUDENT
add check ( (ssex='男'and age<24)or (ssex='女'and age<22))
[2022-04-03 14:51:04] 在 60 ms 内完成
```

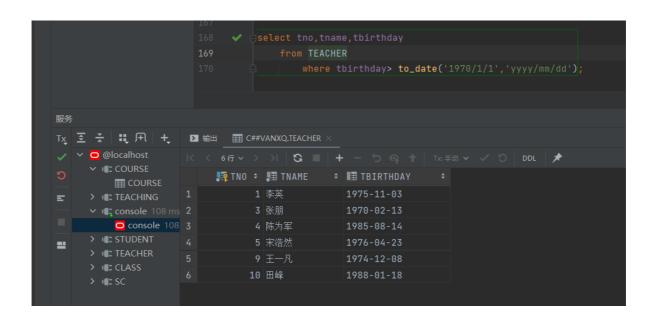
(10) 查询所有在"2003-01-01"之前出生的女同学的学号、姓名、性别、出生日期

```
select sno,sname,ssex,sbirthday
from STUDENT
where sbirthday < to_date('2003/1/1','yyyy/mm/dd') and ssex = '女';
```



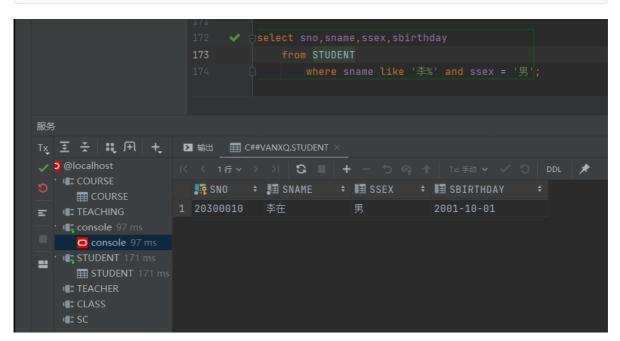
(11) 查询在1970年1月1日之后出生的教师的教师号、姓名、出生日期

```
select tno,tname,tbirthday
  from TEACHER
  where tbirthday> to_date('1970/1/1','yyyy/mm/dd');
```



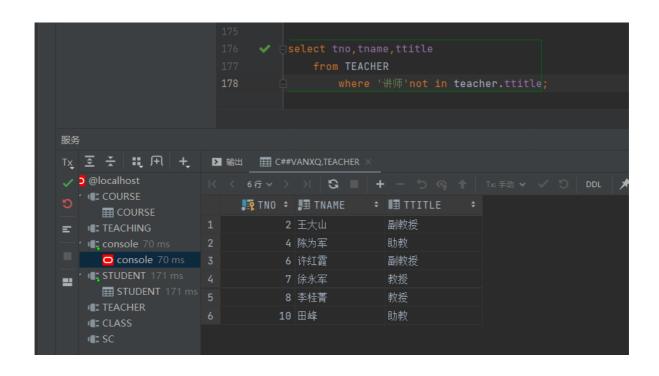
(12) 查询所有姓"李"的男同学的学号、姓名、性别、出生日期

```
select sno,sname,ssex,sbirthday
from STUDENT
where sname like '李%' and ssex = '男';
```



(13) 查询所有职称不是"讲师"的教师的教师号、姓名、职称

```
select tno,tname,ttitle
from TEACHER
where '讲师'not in teacher.ttitle;
```

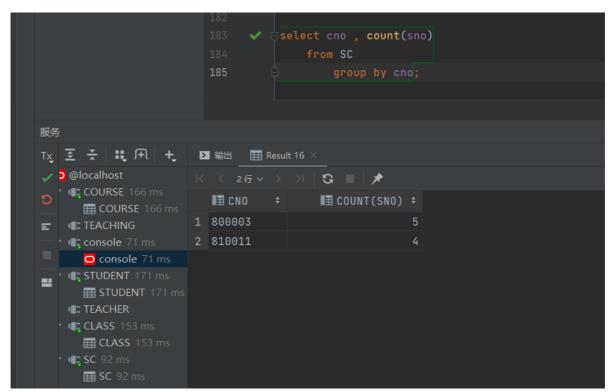


#### (14) 查询虽然选修了课程,但未参加考试的所有同学的学号

```
select sno
from SC
where grade is null;
```

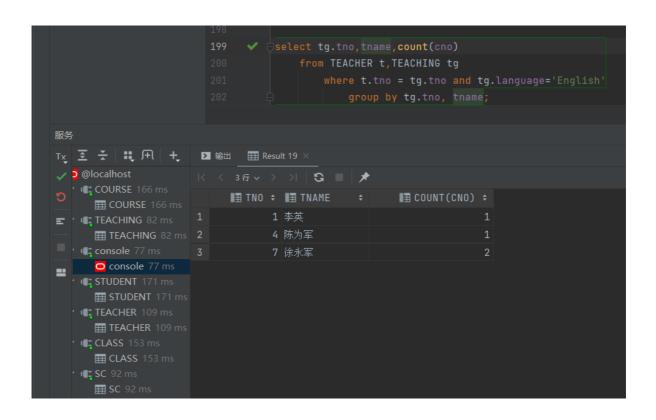
# (15) 查询各个课程号的选课人数

```
select cno , count(sno)
  from SC
    group by cno;
```



(16) 查询所有用英文授课(Language 字段值为English)的教师的教师号、姓名及其英语授课的门数

```
select tg.tno,tname,count(cno)
from TEACHER t,TEACHING tg
    where t.tno = tg.tno and tg.language='English'
    group by tg.tno, tname;
```



## (17) 查询讲授2门及以上课程的教师号、姓名

```
select t.tno, tname
  from TEACHING tg join TEACHER t on tg.tno = t.tno
     group by tname, t.tno
     having count(cno)>=2;
```

```
select avg(grade), min(grade), max(grade)
from SC
    where cno=810011;
```

```
| 283 | 284 | 285 | 286 | 286 | 388 | 286 | 388 | 286 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 388 | 38
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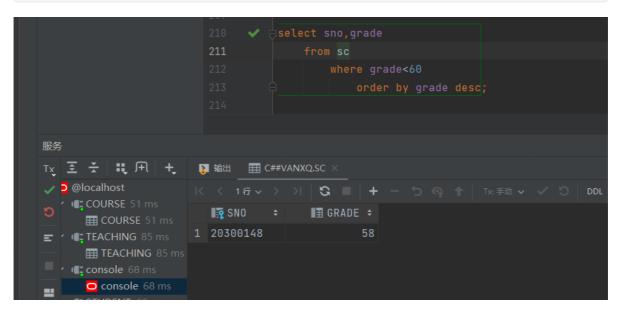
### (19) 查询所有考试不及格的同学的学号、成绩,并按成绩降序排列

```
select sno,grade

from sc

where grade<60

order by grade desc;
```



(20) 查询1960年以后出生的,职称为讲师的教师的姓名、出生日期,并按出生日期升序排列。

```
select tname, tbirthday
from teacher
where ttitle='讲师' and tbirthday>=to_date('1960-01-01','yyyy-mm-dd')
order by tbirthday;
```

