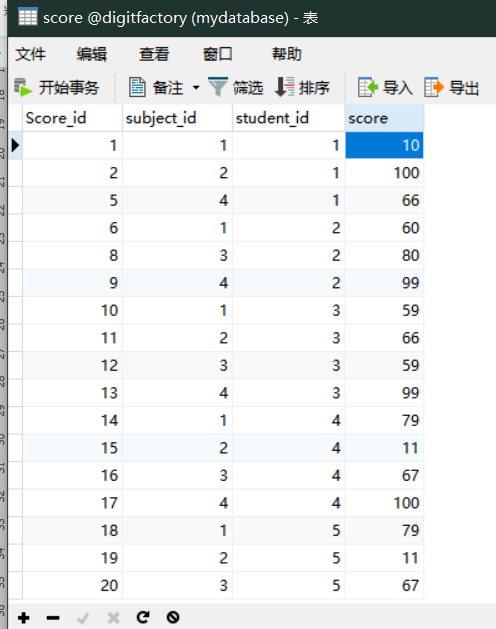
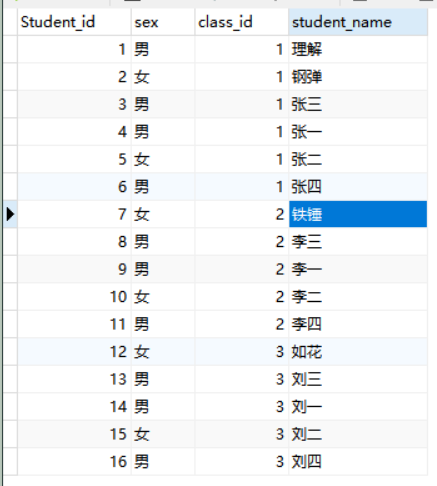
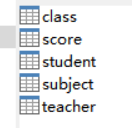
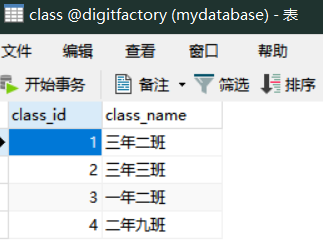
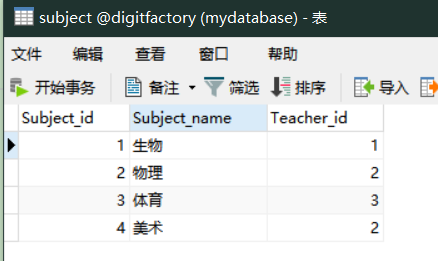
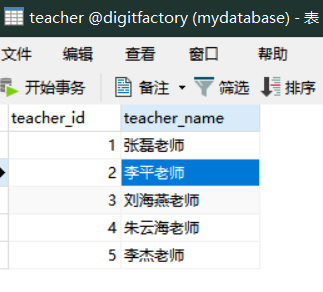


数据准备:







1. 查询男生、女生的人数；



SELECT count(\*),sex '人数' from student

GROUP BY sex ;

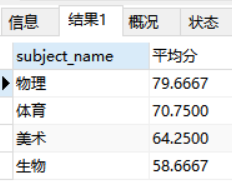
1. 查询姓“张”的学生名单；



-- SELECT \* from student

-- where student\_name LIKE '张%'

1. 课程平均分从高到低显示



-- SELECT

-- su.subject\_name,

-- AVG(sc.score) as '平均分'

-- from subject su,score sc

-- where su.subject\_id = sc.student\_id

-- group by su.subject\_name

-- order by 平均分 desc;

1. 查询有课程成绩小于60分的同学的学号、姓名；



SELECT

st.Student\_id,st.student\_name

from

student st,score sc

Where

st.Student\_id = sc.student\_id and sc.score<60

1. 查询至少有一门课与学号为1的同学所学课程相同的同学的学号和姓名；



SELECT

student\_id,

student\_name

FROM

student

WHERE

student\_id IN (

SELECT DISTINCT

student\_id

FROM

score

WHERE

subject\_id IN (

SELECT

subject\_id

FROM

score

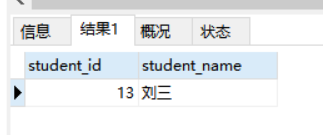
WHERE

student\_id = 1

)

);

1. 查询出只选修了一门课程的全部学生的学号和姓名；



SELECT

student\_id,

student\_name

FROM

student

WHERE

student\_id IN (

SELECT

student\_id

FROM

score

GROUP BY

student\_id

HAVING

count(student\_id) = 1

);

1. 查询各科成绩最高和最低的分：以如下形式显示：课程ID，最高分，最低分；



select

subject.subject\_id '课程ID',

max(score) '自高分',

min(score) '最低分'

from subject,score

where score.subject\_id = subject.subject\_id

group by score.subject\_id

1. 查询课程编号“2”的成绩比课程编号“1”课程低的所有同学的学号、姓名；



select DISTINCT

student.Student\_id '学号',

student.student\_name '姓名'

from student,score sc

where

student.Student\_id = sc.student\_id

AND

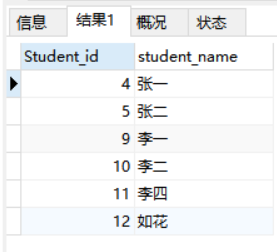
(select score from score where student.Student\_id = score.student\_id

and score.subject\_id = 2)

<(select score from score where student.Student\_id = score.student\_id

and score.subject\_id = 1)

1. 查询“生物”课程比“物理”课程成绩高的所有学生的学号；



select DISTINCT

st.Student\_id,st.student\_name

from

subject su,student st,score sc

where

st.student\_id = sc.student\_id

and

sc.subject\_id = su.subject\_id

AND

(select sc\_2.score from score sc\_2,subject su\_2 where sc\_2.student\_id = sc.student\_id

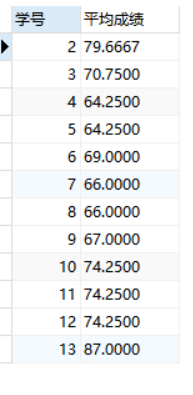
and su\_2.subject\_name = '生物' and su\_2.subject\_id = sc\_2.subject\_id )

>

(select sc\_2.score from score sc\_2,subject su\_2 where sc\_2.student\_id = sc.student\_id

and su\_2.subject\_name = '物理' and su\_2.subject\_id = sc\_2.subject\_id )

1. 查询平均成绩大于60分的同学的学号和平均成绩;



select

st.Student\_id '学号',

avg(sc.score) as '平均成绩'

from

student st,score sc

where st.student\_id = sc.student\_id

group by st.student\_id

having 平均成绩 >60

1. 查询所有同学的学号、姓名、选课数、总成绩；



SELECT DISTINCT

st.Student\_id,st.student\_name,

kec.num,

allscore.alls

FROM

student st,subject su,

score sc,

(select count(\*) as num,sc\_2.student\_id as st\_a from score sc\_2

group by sc\_2.student\_id

) kec,

(select SUM(sc\_3.score) as alls,sc\_3.student\_id as st\_b from score sc\_3

group by sc\_3.student\_id

)allscore

where

st.Student\_id = sc.student\_id

AND

sc.subject\_id = su.subject\_id

and

kec.st\_a = st.Student\_id

AND

allscore.st\_b = st.Student\_id

1. 查询姓“李”的老师的个数；



SELECT count(\*) from teacher

where teacher\_name like '李%'

1. 查询没学过“张磊老师”课的同学的学号、姓名；



select DISTINCT

st.Student\_id '学号',

st.student\_name '姓名'

FROM

student st,score sc,subject su,teacher te

-- LEFT JOIN on student

where

st.Student\_id = sc.student\_id

AND

(

select count(\*) from

score sc\_1,

subject su\_1,

teacher te\_1

where sc\_1.subject\_id = su\_1.subject\_id

and su\_1.teacher\_id = te\_1.teacher\_id

and te\_1.teacher\_name = '张磊老师'

and sc\_1.student\_id = st.student\_id

and sc\_1.student\_id = sc.student\_id

)=0

AND

sc.subject\_id = su.subject\_id

AND

su.teacher\_id = te.teacher\_id;

1. 查询学过“1”并且也学过编号“2”课程的同学的学号、姓名；



select DISTINCT

st.Student\_id,st.student\_name

from

student st,score sc

WHERE

sc.student\_id = st.Student\_id

AND

(select count(\*) from score sc\_2 WHERE

sc\_2.subject\_id = 1

and sc\_2.student\_id = sc.student\_id) >0

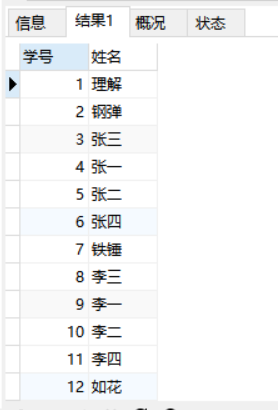
AND

(select count(\*) from score sc\_2 WHERE

sc\_2.subject\_id = 2

and sc\_2.student\_id = sc.student\_id) >0

1. 查询学过“李平老师”所教的所有课的同学的学号、姓名；



select DISTINCT

st.Student\_id '学号',

st.student\_name '姓名'

FROM

student st,score sc,subject su,teacher te

where

st.Student\_id = sc.student\_id

AND

(

select count(\*) from

score sc\_1,

subject su\_1,

teacher te\_1

where sc\_1.subject\_id = su\_1.subject\_id

and su\_1.teacher\_id = te\_1.teacher\_id

and te\_1.teacher\_name = '李平老师'

and sc\_1.student\_id = st.student\_id

and sc\_1.student\_id = sc.student\_id

)>0

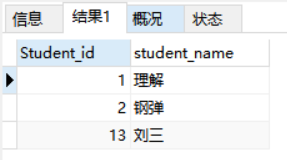
AND

sc.subject\_id = su.subject\_id

AND

su.teacher\_id = te.teacher\_id;

1. 查询没有学全所有课的同学的学号、姓名；



select DISTINCT

st.Student\_id,st.student\_name

from

student st,

score sc,

subject su

WHERE

st.Student\_id = sc.student\_id

AND

(select count(\*) from score sc\_2

where

sc\_2.student\_id = st.Student\_id

)

<>

(SELECT count(\*) from subject)

1. 查询和“002”号的同学学习的课程完全相同的其他同学学号和姓名；



SELECT

student\_id

FROM

score

WHERE

student\_id NOT IN (

SELECT

student\_id

FROM

score

WHERE

subject\_id NOT IN (

SELECT

subject\_id

FROM

score

WHERE

student\_id = 2

)

)

AND student\_id <> 2

GROUP BY

student\_id

HAVING

count(subject\_id) = (

SELECT

count(subject\_id)

FROM

score

WHERE

student\_id = 2

);

1. 删除学习“叶平”老师课的SC表记录；

DELETE

FROM

score

WHERE

subject\_id IN (

SELECT

su.subject\_id

FROM

SUBJECT su,

teacher te

WHERE

te.teacher\_name = '李平老师'

AND su.teacher\_id = te.teacher\_id

)

1. 向SC表中插入一些记录，这些记录要求符合以下条件：①没有上过编号“002”课程的同学学号；②插入“002”号课程的平均成绩；

INSERT INTO score (

subject\_id,

student\_id,

score

) SELECT DISTINCT

'2',

sc.Student\_id,

(

SELECT

AVG(sc\_.score)

FROM

score sc\_

WHERE

sc\_.subject\_id =3

)

FROM

score sc

WHERE

sc.student\_id NOT IN (

SELECT DISTINCT

sc\_2.student\_id

FROM

score sc\_2

WHERE

sc\_2.subject\_id =2

)

1. 按平均成绩从低到高显示所有学生的“语文”、“数学”、“英语”三门的课程成绩，按如下形式显示： 学生ID,语文,数学,英语,有效课程数,有效平均分；



SELECT DISTINCT

sc.student\_id,

(select score from score sc\_A,subject su\_A where sc.student\_id = sc\_A.student\_id and sc\_A.subject\_id = su\_A.subject\_id

and su\_A.subject\_name='生物') '生物',

(select score from score sc\_A,subject su\_A where sc.student\_id = sc\_A.student\_id and sc\_A.subject\_id = su\_A.subject\_id

and su\_A.subject\_name='物理') '物理',

(select score from score sc\_A,subject su\_A where sc.student\_id = sc\_A.student\_id and sc\_A.subject\_id = su\_A.subject\_id

and su\_A.subject\_name='体育') '体育',

(select score from score sc\_A,subject su\_A where sc.student\_id = sc\_A.student\_id and sc\_A.subject\_id = su\_A.subject\_id

and su\_A.subject\_name='美术') '美术',

(select count(\*) from score sc\_b where sc\_b.score>=60 AND sc\_b.student\_id = sc.student\_id) '有效课程数',

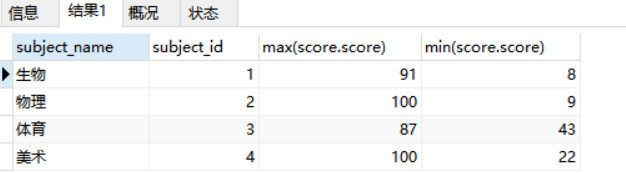
(select avg(sc\_c.score) from score sc\_c where sc\_c.score>=60 AND sc\_c.student\_id = sc.student\_id) '有效平均分'

FROM

subject su,score sc,student st

where st.student\_id = sc.student\_id

1. 查询各科成绩最高和最低的分：以如下形式显示：课程ID，最高分，最低分；



select

subject.subject\_name,

score.subject\_id,

max(score.score),

min(score.score)

FROM

score,subject

WHERE

subject.subject\_id = score.subject\_id

group by score.subject\_id

1. 按各科平均成绩从低到高和及格率的百分数从高到低顺序；





select

su.subject\_name,

avg(score.score) '平均成绩',

(select count(\*) from score where score.subject\_id = su.subject\_id and score.score>=60)/

(select count(\*) from score where score.subject\_id = su.subject\_id)

'及格率'

FROM

score, subject su

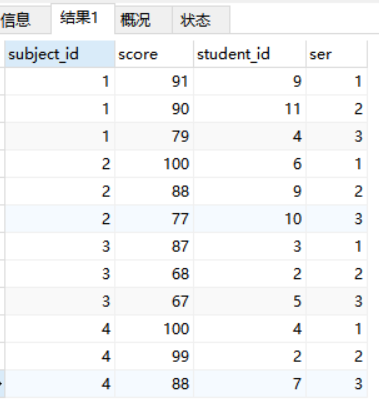
where

score.subject\_id = su.subject\_id

group by score.subject\_id

order by 平均成绩 asc ,及格率 desc

1. 查询各科成绩前三名的记录:(不考虑成绩并列情况)



SELECT

sc\_1.subject\_id,

sc\_1.score,

sc\_1.student\_id,

count(DISTINCT sc\_2.score) AS ser

FROM

score AS sc\_1

INNER JOIN score AS sc\_2 ON sc\_1.subject\_id = sc\_2.subject\_id

AND sc\_1.score <= sc\_2.score

GROUP BY

sc\_1.subject\_id,

sc\_1.score

HAVING

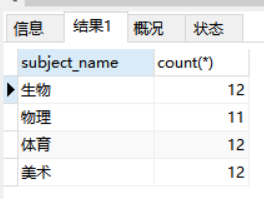
ser <= 3

ORDER BY

subject\_id,

score DESC

1. 查询每门课程被选修的学生数；



select

su.subject\_name,count(\*)

FROM

score sc,subject su

where

sc.subject\_id = su.subject\_id

group by

sc.subject\_id

25.查询同名同姓学生名单，并统计同名人数；



修改数据，使得存在同名学生



select DISTINCT

st.Student\_id '学号',st.student\_name '名字',

(select count(\*) from student st\_1 where st\_1.student\_name = st.student\_name)-1 '同名人数'

FROM

student st

INNER JOIN

student st2

ON st.student\_name = st2.student\_name AND (select count(\*)

from student st\_1 where st\_1.student\_name = st.student\_name)>1

1. 查询每门课程的平均成绩，结果按平均成绩升序排列，平均成绩相同时，按课程号降序排列；



select

su.subject\_name '课程',avg(sc.score) '平均成绩'

FROM

score sc,subject su

WHERE

su.subject\_id = sc.subject\_id

group by

sc.subject\_id

order by 平均成绩 asc

27.查询平均成绩大于85的所有学生的学号. 姓名和平均成绩；



select

su.subject\_name '课程',avg(sc.score) '平均成绩'

FROM

score sc,subject su

WHERE

su.subject\_id = sc.subject\_id

group by

sc.subject\_id

order by 平均成绩 asc

1. 查询课程名称为“数学”，且分数低于60的学生姓名和分数；



select

st.student\_name '姓名',

sc.score

FROM

subject su,score sc,student st

where

st.student\_id = sc.student\_id

and

sc.subject\_id = su.subject\_id

and

su.subject\_name = '生物'

and

sc.score <60

order by sc.score desc

1. 查询课程编号为003且课程成绩在80分以上的学生的学号和姓名；



select

st.Student\_id '学号',

st.student\_name '姓名',

sc.score '成绩',

su.subject\_name '课程'

FROM

student st,score sc,subject su

where

st.Student\_id = sc.student\_id

and

su.subject\_id = sc.subject\_id

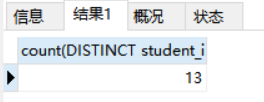
and

sc.subject\_id = 3

AND

sc.score>80

1. 求选了课程的学生人数



select DISTINCT

count(DISTINCT student\_id)

from

score sc\_1

where

(select count(\*) from score sc\_3 where

sc\_1.student\_id = sc\_3.student\_id

)>0

1. 查询选修“杨艳”老师所授课程的学生中，成绩最高的学生姓名及其成绩；



select

st.student\_id '学号',

st.student\_name '姓名',

sc.score '成绩'

from

student st,score sc,teacher te,subject su

WHERE

st.student\_id = sc.student\_id

and

sc.subject\_id = su.subject\_id

and

su.teacher\_id = te.teacher\_id

and

te.teacher\_name = '刘海燕老师'

group by

sc.student\_id

order by 成绩 DESC

limit 0,1

1. 查询各个课程及相应的选修人数；



select

su.subject\_name '课程',

count(\*) '选修人数'

from

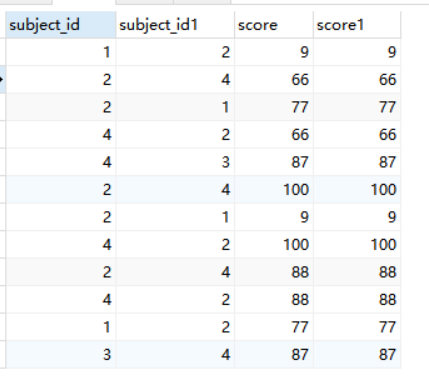
subject su,score sc

WHERE

su.subject\_id = sc.subject\_id

group by sc.subject\_id

1. 查询不同课程但成绩相同的学生的学号、课程号、学生成绩；



SELECT DISTINCT

s1.subject\_id,

s2.subject\_id,

s1.score,

s2.score

FROM

score AS s1,

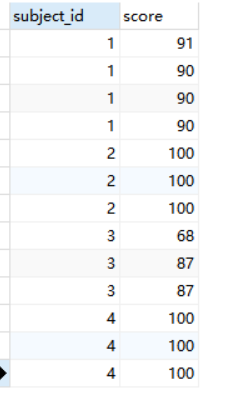
score AS s2

WHERE

s1.score = s2.score

AND s1.subject\_id != s2.subject\_id;

1. 查询每门课程成绩最好的前两名；



SELECT

subject\_id,score

FROM

score sc1

WHERE

(SELECT

COUNT(\*)

FROM

score sc2

WHERE

sc1.score<sc2.score

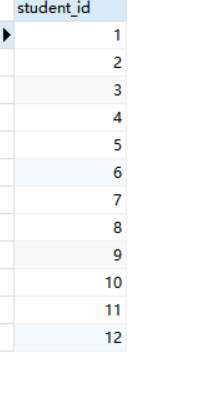
AND

sc1.subject\_id=sc2.subject\_id

)<3

ORDER BY subject\_id

1. 检索至少选修两门课程的学生学号；



select DISTINCT

sc.student\_id

FROM

student st,score sc,

(select DISTINCT sc\_A.student\_id as id from score sc\_A where (select count(\*) from score sc\_B where

sc\_A.student\_id = sc\_B.student\_id)>=2) result

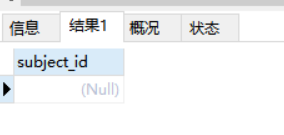
WHERE

result.id = sc.student\_id

AND

sc.student\_id = st.Student\_id

1. 查询全部学生都选修的课程的课程号和课程名；



SELECT

subject\_id

FROM

score

GROUP BY

subject\_id

HAVING

count(student\_id) = (

SELECT

count(student\_id)

FROM

student

);

1. 查询没学过“叶平”老师讲授的任一门课程的学生姓名；



SELECT

student\_name

FROM

student

WHERE

student\_id NOT IN (

SELECT DISTINCT

student\_id

FROM

score

WHERE

subject\_id IN (

SELECT

subject\_id

FROM

`subject`

WHERE

teacher\_id IN (

SELECT

teacher\_id

FROM

teacher

WHERE

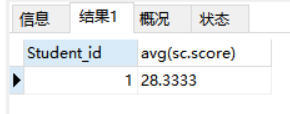
teacher\_name = '李平老师'

)

)

);

1. 查询两门以上不及格课程的同学的学号及其平均成绩；



select

st.Student\_id,

avg(sc.score)

from

score sc,student st

where

(select count(\*) from score sc\_A where sc\_A.student\_id=sc.student\_id and sc\_A.score <60)>=2

and

st.Student\_id = sc.student\_id

group by sc.student\_id

1. 检索“004”课程分数小于60，按分数降序排列的同学学号；



select

sc.student\_id ,

sc.score

from

score sc,subject su

WHERE

sc.subject\_id = su.subject\_id

and

su.subject\_id = 4

AND

sc.score<60

order by sc.score desc

40.删除“002”同学的“001”课程的成绩；

delete from score sc where

sc.student\_id = 2

AND

sc.subject\_id = 1