最近在学习SQL嘛,所以各个地方找题目来练手,毕竟现在能离得开数据库么?

Student(S#,Sname,Sage,Ssex) 学生表   
Course(C#,Cname,T#) 课程表   
SC(S#,C#,score) 成绩表   
Teacher(T#,Tname) 教师表

问题：   
**1**、查询“**001**”课程比“**002**”课程成绩高的所有学生的学号；   
  select a.S# from (select s#,score from SC where C#='001') a,(select s#,score   
  from SC where C#='002') b   
  where a.score>b.score and a.s#=b.s#;   
**2**、查询平均成绩大于60分的同学的学号和平均成绩；   
    select S#,avg(score)   
    from sc   
    group by S# having avg(score) >**60**;   
**3**、查询所有同学的学号、姓名、选课数、总成绩；   
  select Student.S#,Student.Sname,count(SC.C#),sum(score)   
  from Student left Outer join SC on Student.S#=SC.S#   
  group by Student.S#,Sname   
**4**、查询姓“李”的老师的个数；   
  select count(distinct(Tname))   
  from Teacher   
  where Tname like '李%';   
**5**、查询没学过“叶平”老师课的同学的学号、姓名；

Student.S#,Student.Sname   
    from Student    
    where S# not in (select distinct( SC.S#) from SC,Course,Teacher where  SC.C#=Course.C# and Teacher.T#=Course.T# and Teacher.Tname='叶平');   
**6**、查询学过“**001**”并且也学过编号“**002**”课程的同学的学号、姓名；   
  select Student.S#,Student.Sname from Student,SC where Student.S#=SC.S# and SC.C#='001'and exists( Select \* from SC as SC\_2 where SC\_2.S#=SC.S# and SC\_2.C#='002');   
**7**、查询学过“叶平”老师所教的所有课的同学的学号、姓名；   
  select S#,Sname   
  from Student   
  where S# in (select S# from SC ,Course ,Teacher where SC.C#=Course.C# and Teacher.T#=Course.T# and Teacher.Tname='叶平' group by S# having count(SC.C#)=(select count(C#) from

Course,Teacher  where Teacher.T#=Course.T# and Tname='叶平'));   
**8**、查询课程编号“**002**”的成绩比课程编号“**001**”课程低的所有同学的学号、姓名；   
  Select S#,Sname from (select Student.S#,Student.Sname,score ,(select score from SC SC\_2 where SC\_2.S#=Student.S# and SC\_2.C#='002') score2   
  from Student,SC where Student.S#=SC.S# and C#='001') S\_2 where score2 <score;   
**9**、查询所有课程成绩小于60分的同学的学号、姓名；   
  select S#,Sname   
  from Student   
  where S# not in (select Student.S# from Student,SC where S.S#=SC.S# and score>**60**);   
**10**、查询没有学全所有课的同学的学号、姓名；   
    select Student.S#,Student.Sname   
    from Student,SC   
    where Student.S#=SC.S# group by  Student.S#,Student.Sname having count(C#) <(select count(C#) from Course);   
**11**、查询至少有一门课与学号为“**1001**”的同学所学相同的同学的学号和姓名；

select S#,Sname from Student,SC where Student.S#=SC.S# and C# in select C# from SC where S#='1001';   
**12**、查询至少学过学号为“**001**”同学所有一门课的其他同学学号和姓名；   
    select distinct SC.S#,Sname   
    from Student,SC   
    where Student.S#=SC.S# and C# in (select C# from SC where S#='001');   
**13**、把“SC”表中“叶平”老师教的课的成绩都更改为此课程的平均成绩；   
    update SC set score=(select avg(SC\_2.score)   
    from SC SC\_2   
    where SC\_2.C#=SC.C# ) from Course,Teacher where Course.C#=SC.C# and Course.T#=Teacher.T# and Teacher.Tname='叶平');   
**14**、查询和“**1002**”号的同学学习的课程完全相同的其他同学学号和姓名；   
    select S# from SC where C# in (select C# from SC where S#='1002')   
    group by

S# having count(\*)=(select count(\*) from SC where S#='1002');   
**15**、删除学习“叶平”老师课的SC表记录；   
    Delect SC   
    from course ,Teacher    
    where Course.C#=SC.C# and Course.T#= Teacher.T# and Tname='叶平';   
**16**、向SC表中插入一些记录，这些记录要求符合以下条件：没有上过编号“**003**”课程的同学学号、**2**、   
    号课的平均成绩；   
    Insert SC select S#,'002',(Select avg(score)   
    from SC where C#='002') from Student where S# not in (Select S# from SC where C#='002');   
**17**、按平均成绩从高到低显示所有学生的“数据库”、“企业管理”、“英语”三门的课程成绩，按如下形式显示： 学生ID,,数据库,企业管理,英语,有效课程数,有效平均分   
    SELECT S# as 学生ID   
        ,(SELECT score FROM SC WHERE SC.S#=t.S# AND C#='004') AS 数据库

,(SELECT score FROM SC WHERE SC.S#=t.S# AND C#='001') AS 企业管理   
        ,(SELECT score FROM SC WHERE SC.S#=t.S# AND C#='006') AS 英语   
        ,COUNT(\*) AS 有效课程数, AVG(t.score) AS 平均成绩   
    FROM SC AS t   
    GROUP BY S#   
    ORDER BY avg(t.score)    
**18**、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 L.C# As 课程ID,L.score AS 最高分,R.score AS 最低分   
    FROM SC L ,SC AS R   
    WHERE L.C# = R.C# and   
        L.score = (SELECT MAX(IL.score)   
                      FROM SC AS IL,Student AS IM   
                      WHERE L.C# = IL.C# and IM.S#=IL.S#   
                      GROUP BY IL.C#)   
        AND   
        R.Score

= (SELECT MIN(IR.score)   
                      FROM SC AS IR   
                      WHERE R.C# = IR.C#   
                  GROUP BY IR.C#   
                    );   
**19**、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 t.C# AS 课程号,max(course.Cname)AS 课程名,isnull(AVG(score),**0**) AS 平均成绩   
        ,**100** \* SUM(CASE WHEN  isnull(score,**0**)>=**60** THEN **1** ELSE **0** END)/COUNT(\*) AS 及格百分数   
    FROM SC T,Course   
    where t.C#=course.C#   
    GROUP BY t.C#   
    ORDER BY **100** \* SUM(CASE WHEN  isnull(score,**0**)>=**60** THEN **1** ELSE

**0** END)/COUNT(\*) DESC   
**20**、查询如下课程平均成绩和及格率的百分数(用"1行"显示): 企业管理（**001**），马克思（**002**），OO&UML （**003**），数据库（**004**）   
    SELECT SUM(CASE WHEN C# ='001' THEN score ELSE **0** END)/SUM(CASE C# WHEN '001' THEN **1** ELSE **0** END) AS 企业管理平均分   
        ,**100** \* SUM(CASE WHEN C# = '001' AND score >= **60** THEN **1** ELSE **0** END)/SUM(CASE WHEN C# = '001' THEN **1** ELSE **0** END

) AS 企业管理及格百分数   
        ,SUM(CASE WHEN C# = '002' THEN score ELSE **0** END)/SUM(CASE C# WHEN '002' THEN **1** ELSE **0** END) AS 马克思平均分   
        ,**100** \* SUM(CASE WHEN C# = '002' AND score >= **60** THEN **1** ELSE **0** END)/SUM(CASE WHEN C# = '002' THEN **1** ELSE **0** END) AS 马克思及格百分数   
        ,SUM(CASE WHEN C# = '003' THEN score ELSE **0** END)/

SUM(CASE C# WHEN '003' THEN **1** ELSE **0** END) AS UML平均分   
        ,**100** \* SUM(CASE WHEN C# = '003' AND score >= **60** THEN **1** ELSE **0** END)/SUM(CASE WHEN C# = '003' THEN **1** ELSE **0** END) AS UML及格百分数   
        ,SUM(CASE WHEN C# = '004' THEN score ELSE **0** END)/SUM(CASE C# WHEN '004' THEN **1** ELSE **0** END) AS 数据库平均分   
        ,**100**

\* SUM(CASE WHEN C# = '004' AND score >= **60** THEN **1** ELSE **0** END)/SUM(CASE WHEN C# = '004' THEN **1** ELSE **0** END) AS 数据库及格百分数   
  FROM SC   
**21**、查询不同老师所教不同课程平均分从高到低显示   
  SELECT max(Z.T#) AS 教师ID,MAX(Z.Tname) AS 教师姓名,C.C# AS 课程ＩＤ,MAX(C.Cname) AS 课程名称,AVG(Score) AS 平均成绩   
    FROM SC AS T,Course AS C ,Teacher AS Z   
    where T.C#=C.C# and C.T#=Z.T#   
  GROUP BY C.C#   
  ORDER BY AVG(Score) DESC   
**22**、查询如下课程成绩第 **3** 名到第 **6** 名的学生成绩单：企业管理（**001**），马克思（**002**），UML （**003**），数据库（**004**）   
    [学生ID],[学生姓名],企业管理,马克思,UML,数据库,平均成绩   
    SELECT  DISTINCT top **3**   
      SC.S# As 学生学号,   
        Student.Sname AS 学生姓名 ,   
      T1.score AS 企业管理,   
      T2.score AS 马克思,   
      T3.score AS UML,   
      T4.score AS 数据库,   
      ISNULL(T1.score,**0**) + ISNULL(T2.score,**0**) + ISNULL(T3.score,**0**) + ISNULL(T4.score,**0**) as 总分   
      FROM Student,SC  LEFT JOIN SC AS T1   
                      ON SC.S# = T1.S# AND T1.C# = '001'   
            LEFT JOIN SC AS T2   
                      ON SC.S# = T2.S# AND T2.C# = '002'   
            LEFT JOIN SC AS T3   
                      ON SC.S# =T3.S# AND T3.C# = '003'   
            LEFT JOIN SC AS T4   
                      ON SC.S# = T4.S# AND T4.C# = '004'   
      WHERE student.S#=SC.S# and   
      ISNULL(T1.score,**0**) + ISNULL(T2.score,**0**) + ISNULL(T3.score,**0**) + ISNULL(T4.score,**0**)   
      NOT IN   
      (SELECT   
            DISTINCT   
            TOP **15** WITH TIES   
            ISNULL(T1.score,**0**) + ISNULL(T2.score,**0**) + ISNULL(T3.score,**0**) + ISNULL(T4.score,**0**)   
      FROM sc   
            LEFT JOIN sc AS T1   
                      ON sc.S# = T1.S# AND T1.C#= 'k1'   
            LEFT JOIN sc AS T2   
                      ON sc.S# = T2.S# AND T2.C# = 'k2'   
            LEFT JOIN sc AS T3   
                      ON sc.S# = T3.S# AND T3.C# = 'k3'   
            LEFT JOIN sc AS T4   
                      ON sc.S# = T4.S# AND T4.C# = 'k4'   
      ORDER BY ISNULL(T1.score,**0**) + ISNULL(T2.score,**0**) + ISNULL(T3.score,**0**) + ISNULL(T4.score,**0**) DESC);   
  
**23**、统计列印各科成绩,各分数段人数:课程ID,课程名称,[100-85],[85-70],[70-60],[ <60]   
    SELECT SC.C# as 课程ID, Cname

as 课程名称   
        ,SUM(CASE WHEN score BETWEEN **85** AND **100** THEN **1** ELSE **0** END) AS [100 - 85]   
        ,SUM(CASE WHEN score BETWEEN **70** AND **85** THEN **1** ELSE **0** END) AS [85 - 70]   
        ,SUM(CASE WHEN score BETWEEN **60** AND **70** THEN **1** ELSE **0** END) AS [70 - 60]   
        ,SUM(CASE WHEN score < **60** THEN **1** ELSE **0** END) AS [60 -]   
    FROM SC,Coursewhere SC.C#=Course.C#   
    GROUP BY SC.C#,Cname;   
  
**24**、查询学生平均成绩及其名次   
      SELECT **1**+(SELECT COUNT( distinct 平均成绩)   
              FROM (SELECT S#,AVG(score) AS 平均成绩   
                      FROM SC   
                  GROUP BY S#   
                  ) AS T1   
            WHERE 平均成绩 > T2.平均成绩) as 名次,   
      S# as 学生学号,平均成绩   
    FROM (SELECT S#,AVG(score) 平均成绩   
            FROM SC   
        GROUP BY S#   
        ) AS T2   
    ORDER BY 平均成绩 desc;   
    
**25**、查询各科成绩前三名的记录:(不考虑成绩并列情况)   
      SELECT t1.S# as 学生ID,t1.C# as 课程ID,Score as 分数   
      FROM SC t1   
      WHERE score IN (SELECT TOP **3** score   
              FROM SC   
              WHERE t1.C#= C#     ORDER BY score DESC   
              )   
      ORDER BY t1.C#;   
**26**、查询每门课程被选修的学生数   
  select c#,count(S#) from sc group by C#;   
**27**、查询出只选修了一门课程的全部学生的学号和姓名   
  select SC.S#,Student.Sname,count(C#) AS 选课数   
  from SC ,Student   
  where SC.S#=Student.S# group by SC.S# ,Student.Sname having count(C#)=**1**;   
**28**、查询男生、女生人数   
    Select count(Ssex) as 男生人数 from Student group by Ssex having Ssex='男';   
    Select count(Ssex) as 女生人数 from Student group by Ssex having Ssex='女'；   
**29**、查询姓“张”的学生名单   
    SELECT Sname FROM Student WHERE Sname like '张%';   
**30**、查询同名同性学生名单，并统计同名人数   
  select Sname,count(\*) from Studentgroup by Sname having  count(\*)>**1**;;   
**31**、1981年出生的学生名单(注：Student表中Sage列的类型是datetime)   
    select Sname,  CONVERT(char (**11**),DATEPART(year,Sage)) as age   
    from student   
    where  CONVERT(char(**11**),DATEPART(year,Sage))='1981';   
**32**、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 C#,Avg(score) from SC group by C# order by Avg(score),C# DESC ;   
**33**、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 Sname,SC.S# ,avg(score)   
    from Student,SC   
    where Student.S#=SC.S# group by SC.S#,Sname having    avg(score)>**85**;   
**34**、查询课程名称为“数据库”，且分数低于60的学生姓名和分数   
    Select Sname,isnull(score,**0**)   
    from Student,SC,Course   
    where SC.S#=Student.S# and SC.C#=Course.C#and  Course.Cname='数据库'and score <**60**;   
**35**、查询所有学生的选课情况；   
    SELECT SC.S#,SC.C#,Sname,Cname   
    FROM SC,Student,Course   
    where SC.S#=Student.S# and SC.C#=Course.C# ;   
**36**、查询任何一门课程成绩在70分以上的姓名、课程名称和分数；   
    SELECT  distinct student.S#,student.Sname,SC.C#,SC.score   
    FROM student,Sc   
    WHERE SC.score>=**70** AND SC.S#=student.S#;   
**37**、查询不及格的课程，并按课程号从大到小排列   
    select c# from sc where scor e <**60** order by C# ;   
**38**、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 SC.S#,Student.Sname from SC,Student where SC.S#=Student.S# and Score>**80** and C#='003';   
**39**、求选了课程的学生人数   
    select count(\*) from sc;   
**40**、查询选修“叶平”老师所授课程的学生中，成绩最高的学生姓名及其成绩   
    select Student.Sname,score   
    from Student,SC,Course C,Teacher   
    where Student.S#=SC.S# and SC.C#=C.C# and

C.T#=Teacher.T# and Teacher.Tname='叶平' and SC.score=(select max(score)from SC where C#=C.C# );   
**41**、查询各个课程及相应的选修人数   
    select count(\*) from sc group by C#;   
**42**、查询不同课程成绩相同的学生的学号、课程号、学生成绩   
  select distinct  A.S#,B.score from SC A  ,SC B where A.Score=B.Score and A.C# <>B.C# ;   
**43**、查询每门功成绩最好的前两名   
    SELECT t1.S# as 学生ID,t1.C# as 课程ID,Score as 分数   
      FROM SC t1   
      WHERE score IN (SELECT TOP **2** score   
              FROM SC   
              WHERE t1.C#= C#   
            ORDER BY score DESC   
              )   
      ORDER BY t1.C#;   
**44**、统计每门课程的学生选修人数（超过10人的课程才统计）。要求输出课程号和选修人数，查询结果按人数降序排列，查询结果按人数降序排列，若人数相同，按课程号升序排列    
    select  C# as 课程号,count(\*) as 人数

    from  sc    
    group  by  C#   
    order  by  count(\*) desc,c#    
**45**、检索至少选修两门课程的学生学号   
    select  S#    
    from  sc    
    group  by  s#   
    having  count(\*)  >  =  **2**   
**46**、查询全部学生都选修的课程的课程号和课程名   
    select  C#,Cname    
    from  Course    
    where  C#  in  (select  c#  from  sc group  by  c#)    
**47**、查询没学过“叶平”老师讲授的任一门课程的学生姓名   
    select Sname from Student where S# not in (select S# from Course,Teacher,SC where Course.T#=Teacher.T# and SC.C#=course.C# and Tname='叶平');   
**48**、查询两门以上不及格课程的同学的学号及其平均成绩   
    select S#,avg(isnull(score,**0**)) from SC where S# in (select S# from SC where

score <**60** group by S# having count(\*)>**2**)group by S#;   
**49**、检索“**004**”课程分数小于60，按分数降序排列的同学学号   
    select S# from SC where C#='004'and score <**60** order by score desc;   
**50**、删除“**002**”同学的“**001**”课程的成绩   
delete from Sc where S#='001'and C#='001';