```sql
/* Problems 7.8 (a&b) (c&d)
   Problems 7.9 (all)
   Problems 17.18 (a - d)
*/

-- 7.8
Create View DepartmentManagers
as
Select Department.Dname, Employee.Fname, Employee.Minit, Employee.Lname, Employee.Salary
from Department join Employee on Department.Mgr_ssn = Employee.ssn
go

Create View ResearchEmployees
as
Select Department.Dname, Employee.Fname, Employee.Minit, Employee.Lname,
Supervisor.Fname, Supervisor.Minit, Supervisor.Lname, Employee.Salary
from Employee join Department on Deparment.Dnumber = Employee.Dno, Employee as Supervisor
where Department.Dname = 'Research' and Employee.Super_ssn = Supervisor.ssn
go

Create View ProjectInformation
as
Select Project.Pname, Department.Dname, Count(Employee.ssn) as [Number of Employees],
SUM(Works_on.hours) as [Total Hours]
from (Employee join (Works_On join (Project join Department on Project.dnum =
department.dnumber) as q by Works_On.Pno = q.Pnumber) as r by r.essn = Employee.ssn)
group by Project.Pname
go


Create View ProjectInformation
as
Select Project.Pname, Department.Dname, Count(Employee.ssn) as [Number of Employees],
SUM(Works_on.hours) as [Total Hours]
from (Employee join (Works_On join (Project join Department on Project.dnum =
department.dnumber) as q by Works_On.Pno = q.Pnumber) as r by r.essn = Employee.ssn)
group by Project.Pname
having [Number of Employees] > 1
go


/* 7.9
-- a) 5 4 133000 332500
--    4 3 93000 23250
        1 1 55000 55000
   b) 5 4
   c) 5 332500
   d) It will change the netry 5 4 133000 332500 to 3 4 133000 332500
   e) Undefined due to the group by causing a new column. What to do with employees?

   17.18
   a) 40+9+9+30+10+8+1+4+4+1 = 116 B
   b) |512/116| = 4 bfr, file blocks |30000/4| = 7500 blocks required
   c) i) |512/(9+7)| = 32 bfr
         ii) 30000 first index entries, 938 blocks
         iii) log[32](30000) + 1 = 4
         iv) 938 + 30 + 1 = 969
         v) 3 accesses
```

d) i) |512/(9+7)| = 32 bfr
   ii) 30000 first index entries, 938 blocks
      iii) log[32](30000) + 1 = 4
      iv) 7500 + 938 + 30 + 1 = 8469
      v) 4