CSE 544 - Assignment 1 - Solutions

March 31st, 2000

```
a.
select fname, lname
from   employee
where  salary > 30000

fname      lname
---------- ----------
Franklin   Wong
Ramesh     Narayan
James      Borg
Jennifer   Wallace

(4 row(s) affected)

===============================
b.
select distinct dname
from   department, employee
where  dno = dnumber

dname
--------------------
Administration
Headquarters
Research

(3 row(s) affected)

===============================
c.
select fname, lname
from   employee
where  salary > (select avg(salary) from employee)

fname      lname
---------- ----------
Franklin   Wong
Ramesh     Narayan
James      Borg
Jennifer   Wallace

(4 row(s) affected)
```

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===================================
d.
select   dname, avg(salary) as money
from     department, employee
where    dno = dnumber
group by dnumber, dname
order by money desc

dname                money
-------------------- ----------------------------------------
Headquarters         55000.000000
Research             33250.000000
Administration       31000.000000

(3 row(s) affected)

=====================================
e.
select  fname, lname, pname
from    employee, works_on, project
where   ssn in (select  a.essn
                from    works_on as a, works_on as b, project as p, project as q
                where   a.essn = b.essn and
                        a.pno = p.pnumber and
                        p.plocation = 'Stafford' and
                        b.pno = q.pnumber and
                        q.plocation = 'Sugarland'
                ) and
        ssn = essn and
        pno = pnumber and
        plocation in ('Stafford', 'Sugarland')


fname      lname      pname
---------- ---------- --------------------
Franklin   Wong       ProductY
Franklin   Wong       Computerization

(2 row(s) affected)


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f.
select   distinct fname, lname
from     employee, works_on, project as r
where    ssn = essn and
         pno = r.pnumber and
         essn in (select   essn
                  from     works_on, project as p
                  where    pno = p.pnumber and
                           p.plocation <> r.plocation
                  group by p.plocation, essn
                  having   count(*) = (select count(*)
                                       from   project as q
```

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                                          where  q.plocation = p.plocation)
                  )
group by r.plocation, essn, fname, lname
having count(*) = (select count(*)
                   from   project as s
                   where  r.plocation = s.plocation)

fname      lname
---------- ----------
Franklin   Wong
John       Smith
Joyce      English

(3 row(s) affected)

=========================================
h.
select   fname, lname
from     employee, works_on
where    ssn = essn
group by ssn, fname, lname
having   count(*) >= all(select   count(*)
                         from     works_on
                         group by essn
                        )

fname      lname
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Franklin   Wong

(1 row(s) affected)

============================================
i.
select   distinct fname, lname, address
from     employee, works_on, project
where    not exists (select *
                     from   dept_locations
                     where  dnumber = dno and
                     dlocation = 'Houston') and
         ssn = essn and
         pno = pnumber and
         plocation = 'Houston'

fname      lname      address
---------- ---------- ------------------------------
Jennifer   Wallace    291 Berry, Bellaire, TX

(1 row(s) affected)
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