

Day X

Thursday, September 24, 2009
5:01 PM

Q4

Find employees who work on some (at least one) project.

```
SELECT DISTINCT Emp.ssn, Emp.name  
FROM Emp.Works_ON  
WHERE Emp.SSN = Works_ON
```

Q5

Find the numberid of projects that involve an employee named 'John' who is either a worker or a manager of the dept that controls the project.

```
( SELECT Pno  
FROM W_O, EMP  
WHERE W_O.Essn = EMP.SSN AND  
EMP.name = 'John'  
)  
UNION  
(  
SELECT Project.Pnumber  
FROM Project, Dept, EMP  
WHERE Dept.Mgr_SSN = EMP.SSN AND  
EMP.name = 'John' AND  
Project.Dnum = Dept.Dnumber  
);
```

Q7

Find the names of employees who have a dependent with same name as the employee

Example

```
Emp(Name, SSN, Bdate, Addr, Sal, Super_SSN, Dno)  
Dept(DName, Dnumber, Mgr_SSN, Mgr_S_date)  
Dept_Loc(Dnumber, Dloc)  
Project(Pname, Pnumber, Ploc, Dnum)  
Works_ON(ESSN, Pno, Hours)  
Dependent(ESSN, DepName, Sex, Bdate)
```

```
Emp.Dno -> Dept.Dnumber  
Dept_Loc.Dnumber -> Dept.Dnumber  
Project.Dnum -> Dept.Dnumber  
Emp.Super_SSN -> Emp.SSN  
Dept.Mgr_SSN -> Emp.SSN
```

II. Nested queries

```
SELECT  
FROM (SELECT FROM WHERE)  
WHERE (SELECT FROM WHERE)  
Conceptional processing of nested queries.  
FOR each tuple ei in the outer query  
IF the conds are satisfied for all tuples in  
the inner query  
THEN ei is part of the result  
ELSE Continue
```

I. Set operations in SQL

| | |
|-----------|--------|
| Intersect | \cap |
| Union | \cup |
| Except | --- |

Q6

Find the names and addresses of all employees who work in the 'Research' dept

```
SELECT name, addr  
FROM Emp  
WHERE Emp.Dno IN  
( SELECT Dnumber  
FROM Dept  
WHERE Dept.Dname = 'Research');
```

Audio Recording



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Audio recording started: 5:01
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