

--SQL Sample Code
--Shih-Hung (Angela) Ma

--1.

```
select concat(s.stffirstname, ' ', s.stflastname) as name, f.title,
s.datehired
from staff s
join faculty f
on s.staffid = f.staffid
where f.title in ('Professor', 'Associate Professor') and
       date_part('year', s.datehired) = 1992;
```

--2.

```
select concat(s.studfirstname, ' ', s.studlastname) as student_name,
avg(ss.grade) student_average_grade
from classes c
join student_schedules ss
on c.classid = ss.classid
join students s
on ss.studentid = s.studentid
where ss.classstatus = 2
group by 1
order by 2 desc;
```

--3.

```
select s.subjectcode, s.subjectname
from subjects s
left join faculty_subjects fs
on s.subjectid = fs.subjectid
where fs.staffid is null;
```

--4.

```
select concat(s.stflastname, ' ', s.stffirstname) as concat, count(*) as
count
from staff s
join faculty_classes fc
on s.staffid = fc.staffid
join classes c
on fc.classid = c.classid
group by 1
having count(*) > 7;
```

--5.

```
select s.staffid, s.stflastname, s.stffirstname, f.title, f.status,
round(s.salary, 0) as salary,
       case when f.title = 'Instructor' then round(s.salary*1.05, 0)
           when f.title = 'Associate Professor' then
round(s.salary*1.04, 0)
           else round(s.salary*1.035, 0) end as newsalary
from faculty f
join staff s
on f.staffid = s.staffid
where f.status = 'Full Time';
```

```

--6.
select distinct c.categoryid, s.subjectcode, s.subjectname,
               max(ss.grade) over subject_window as subjectmax,
               max(ss.grade) over category_window as categorymax
from categories c
join subjects s
on c.categoryid = s.categoryid
join classes cl
on s.subjectid = cl.subjectid
join student_schedules ss
on cl.classid = ss.classid
where ss.classstatus = 2
window subject_window as (partition by c.categoryid, s.subjectcode order
by c.categoryid),
       category_window as (partition by c.categoryid order by
c.categoryid)
order by 1;

--7.
with t1 as(
    select d.deptname as deptname, f.staffid, avg(fs.proficiencyrating)
as avg_rating
    from departments d
    join categories c
    on d.departmentid = c.departmentid
    join faculty_categories fc
    on c.categoryid = fc.categoryid
    join faculty f
    on fc.staffid = f.staffid
    join faculty_subjects fs
    on f.staffid = fs.staffid
    group by 1, 2
    order by 3 desc),
t2 as(select deptname, max(avg_rating) max_score
      from t1
      group by 1
)

select t1.deptname, t2.max_score
from t1
join t2
on t1.deptname = t2.deptname and t1.avg_rating = t2.max_score
order by 2 desc;

```