

1)

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a)
select *
from course
where credits > 3;
b)
select *
from classroom
where building = 'Watson' or building = 'Packard';
c)
select *
from course
where dept_name = 'Comp. Sci.';
d)
select *
from course
where course_id in (select course_id
                    from section
                    where semester = 'Fall');
e)
select *
from student
where tot_cred >45 and tot_cred <90;
f)
select *
from student
where name like '%a' or name like '%i' or name like '%u' or name like '%e' or name like '%o';
g)
select *
from course
where course_id in (select course_id
                    from prereq
                    where prereq_id = 'CS-101');
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2)

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a)
select dept_name, avg(salary)
from instructor
group by dept_name
order by avg(salary) asc;
b)
select department.dept_name, building, budget
from department, (select dept_name, count(course_id) as num
                  from course
                  group by dept_name
                  order by num asc) as t1
where department.dept_name = t1.dept_name and t1.num in (select max(num) from (select dept_name, count(course_id)
as num
from course
group by dept_name
order by num asc) as t2);
c)
select department.dept_name, building, budget
from department, (select dept_name, count(course_id) as num
                  from course
                  group by dept_name
                  order by num asc) as t1
where department.dept_name = t1.dept_name and t1.num in (select min(num) from (select dept_name, count(course_id)
as num
from course
group by dept_name
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order by num asc) as t2);
d)select student.id,student.name
from student,(select id,count(course_id) as num
from takes
where takes.course_id in (select course_id
from course
where dept_name = 'Comp. Sci.')
group by id) as t3
where student.id = t3.id and t3.num > 2;
e)
select id,name,dept_name
from instructor
where dept_name = 'Biology' or dept_name = 'Philosophy' or dept_name = 'Music';
f)
select instructor.id,instructor.name,instructor.dept_name
from instructor,teaches
where instructor.id = teaches.id and teaches.year = 2018 and teaches.year != 2017;

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3)

[illegible]