

/*Task1*/

```
SELECT * from course WHERE credits > 3;
SELECT * FROM classroom WHERE building='Watson' or building='Packard';
SELECT * FROM course WHERE dept_name='Comp. Sci.';
SELECT course_id FROM section WHERE semester='Fall';
SELECT * FROM student WHERE tot_cred>45 and tot_cred<90;
SELECT * FROM student WHERE name like '%a' or name like '%e' or name like '%i' or name like
'%o' or name like '%u' or name like '%y';
SELECT * FROM prereq WHERE prereq_id='CS-101';
```

/*Task2*/

```
SELECT dept_name, avg (salary)
FROM instructor
group by dept_name
ORDER BY avg(salary);
```

```
SELECT building, num FROM (
    SELECT building, count(course_id) as num FROM section
    group by building) sub
WHERE num in (SELECT max(num)
FROM (SELECT building, count(course_id) as num
FROM section group by building) sub);
```

```
SELECT dept_name , num FROM (
    SELECT dept_name, count(course_id) as num FROM course
    group by dept_name) sub
WHERE num in (SELECT min(num)
FROM (SELECT dept_name, count(course_id) as num
FROM course group by dept_name) sub);
```

```
SELECT takes.id, student.name
FROM takes, course, student
WHERE course.course_id = takes.course_id and course.dept_name = 'Comp. Sci.' and student.id
= takes.id
group by 1,2
having count(*)>3;
```

```
SELECT name, dept_name FROM instructor
WHERE dept_name = 'Biology' or dept_name = 'Music' or dept_name = 'Philosophy';
```

```
SELECT id FROM teaches WHERE year = 2018 and
```

```
id not in (SELECT id FROM teaches WHERE year= 2017);
```

```
/*Task 3*/
```

```
SELECT name,grade FROM takes, student  
WHERE dept_name='Comp. Sci.' and (grade='A' or grade='A-')  
order by name;
```

```
SELECT i_id FROM advisor WHERE s_id NOT in (  
    select id from takes where NOT grade LIKE 'A%' and NOT grade LIKE 'B%' );
```

```
SELECT dept_name FROM department  
WHERE dept_name NOT in (  
    SELECT dept_name FROM student WHERE id in (  
        SELECT id FROM takes WHERE grade='F' or grade='C'));
```

```
SELECT name FROM instructor  
WHERE id NOT in (  
    SELECT id FROM teaches WHERE course_id in (  
        SELECT course_id FROM takes WHERE grade = 'A'));
```

```
SELECT title FROM course WHERE course_id not in (  
    SELECT course_id FROM section WHERE time_slot_id in (  
        SELECT distinct time_slot_id FROM time_slot WHERE (end_hr=13 and end_min>1) OR  
end_hr>13));
```