



CS 353 HOMEWORK 3

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Q1-A)

select s-id, s-name

from student

where department = 'CS' **and** cgpa > 3.0

Q1-B)

select distinct c-id, c-name

from student, membership, club

where student.s-id = membership.s-id **and** membership.c-id = club.c-id **and** student.cgpa > 2.0

Q1-C)

Select c-id, c-name, cnt

From (**select** c-id, c-name, count (*) as cnt

From club, membership

Where club.c-id = membership.c-id

Group by c-id, c-name)

Where cnt > 100

Q1-D)

With temp1 (c-id,cnt) as

(**select** c-id, **count**(*)

from membership

group by c-id),

temp2 (cnt) as

(**select** max(cnt)

From temp1)

Select c-id, c-name

From temp1, temp2, club

Where temp1.cnt = temp2.cnt **and** temp1.c-id = club.c-id

Q2-A)

select TCK, sname

from Students, Grades, Courses

where Students.TCK=Grades.TCK **and** Grades.cid=Courses.cid **and** Courses.credit=4 **AND**
Courses.cdept='CS' **and** Grades.grade>90

Q2-B)

select TCK, sname

from Students

where Students.sdept='CS' **and** Students.cgpa>3.50 **and not exists**

(**select** *

from Grades, Courses

where Students.TCK=Grades.TCK **and** Grades.cid=Courses.cid **and** Courses.cdept='EE')

Q2-C)

select TCK, sname

from Students

where Students.sdept='CS' **and** Students.cgpa=(**select** max(cgpa)

from Students

where sdept='CS')

Q2-D)

select cid, cname

from Courses, Grades, Students

where Courses.cid=Grades.cid **and** Grades.TCK=Students.TCK **and** Courses.cdept='CS'

group by cid, cname

having count(distinct sdept)>=5

Q2-E)

select TCK, sname

from Students, Grades

where Students.TCK=Grades.TCK **and** Grades.grade=100

group by TCK, sname

having count (distinct cid)>=5;

Q2-F)

select cdept, cname, **avg**(grade) **as** avg_grade

from Courses, Grades

where Courses.cid=Grades.cid

group by cdept, cname

order by cdept **asc**

Q2-G)

select cdept, cid

from Courses, Grades

where Courses.cid=Grades.cid

group by cdept, cid

having avg(grade) = (**select max**(avg_grade)

from (**select** cdept, **avg**(grade) **as** avg_grade

from Courses, Grades

where Courses .cid= Grades.cid

group by cdept, cid) **as** dept_avg

where dept_avg.cdept = Courses.cdept)

order by cdept **asc**;

Q2-H)

select TCK, sname

from Students

where Students.cgpa > (**select avg**(cgpa)

from Students

where sdept = Students.sdept);

Q2-I)

select TCK, sname

from Students

where Students.cgpa = (**select max**(cgpa)

from Students

where sdept=Students.sdept)

order by sdept asc;

Q2-J)

select distinct s1.TCK, s2.TCK

from Grades g1, Grades g2, Students s1, Students s2

where s1.TCK!=s2.TCK **and** s1.sdept!=s2.sdept **and** s1.TCK=g1.TCK **and** s2.TCK=g2.TCK **and** g1.cid=g2.cid

group by s1.TCK, s2.TCK

Having count(distinct g1.cid)>=10;