Assignment

Sept23/ DBT/ 011

Database Technologies

Diploma in Advance Computing

September 2023

**Sub-queries with joins.**

USE ***student\_phone, student\_address, faculty\_phone, faculty\_address, batch\_students, course\_batches, student\_qualifications, faculty\_qualifications, course\_modules, modules, faculty, student, course, student\_cards, and student\_order*** relation to solve the following queries.

|  |
| --- |
| 1. Display all student who have taken admission in more than 2 batches. |
| select \* from (select courseid,group\_concat(name) from course\_batches group by courseid having count(name)>2) e; |
|  |
| 1. Display the student detail who have joined the same batch of the student ‘saleel’. |
| select \* from student s1 join batch\_students bs on s1.id=bs.studentid where bs.batchid in(select bs.batchid from student s join batch\_students bs on s.id=bs.studentid where s.namefirst='saleel'); |
|  |
| 1. Display all courses where least number of students have taken the admission. |
| select c.name,cb.capacity,cb.name from course c join course\_batches cb on c.id=cb.courseid where cb.capacity=(select min(capacity) from course\_batches);/////doubt |
|  |
| 1. Display student details who have not taken the admission. |
| select student.id, namefirst from student where namefirst not in (select student.namefirst from student join batch\_students on student.id=batch\_students.studentid) ;//aditya |
|  |
| 1. Get all courses where no modules are defined in course\_modules table. |
| select c1.name from course c1 where c1.name not in(select c.name from course c join course\_modules cm on c.id=cm.courseid);//aditya |
|  |
| 1. Display course*\_batches* details where student has taken the admission. |
| select \* from course\_batches cb where cb.id in (select bs.batchid from student s left join batch\_students bs on s.id=bs.studentid where batchid);//aditya |
|  |
| 1. Display all students whose marks of ‘BE’ is more than ‘ULKA’ marks in ‘BE’. |
| select student.namefirst,student\_qualifications.marks from student join student\_qualifications on student.id= student\_qualifications.studentid where student\_qualifications.name="BE" and student\_qualifications.marks>(select student\_qualifications.marks from student join student\_qualifications on student.id= student\_qualifications.studentid where student.id=3 and name="BE");//Aditya |
|  |
| 1. Display all students whose marks are more than ‘saleel’ marks in 10th std. |
| select s.namefirst,sq.name,sq.marks from student s join student\_qualifications sq on s.id=sq.studentid where sq.name=10 and sq.marks >(select sq.marks from student s join student\_qualifications sq on s.id=sq.studentid where sq.name=10 and s.namefirst='saleel'); |
|  |
| 1. Display students whose DOB is as same as ‘kaushal’ |
| select \* from student where dob=(select dob from student where namefirst='kaushal'); |
|  |
| 1. Display all student details who have three or more phone numbers. |
| select \* from(select s.id,s.namefirst,count(s.namefirst),group\_concat(sp.number) from student s join student\_phone sp where s.id=sp.studentid group by s.id,s.namefirst having count(s.namefirst)>=3) e; |
|  |
| 1. Display marks for the studentID 1 and 7 who have done ‘BE’. (Note: the marks must be displayed side by side). |
| select distinct(select sq.marks from student\_qualifications sq where studentid =1 and name="Be")r1,(select sq.marks from student\_qualifications sq where studentid =7 and name="Be") r2 from student s join student\_qualifications sq; |
|  |
| 1. Display marks for the studentID 1 and 7 who have done ‘BE’ also fine out the difference of marks between them.   (Note: the marks and difference between the marks must be displayed side by side)    +-------------+-------------+------------------+ |
| select distinct(select sq.marks from student\_qualifications sq where studentid =1 and name="Be")studentid\_1,(select sq.marks from student\_qualifications sq where studentid =7 and name="Be") studentid\_7,((select sq.marks from student\_qualifications sq where studentid =7 and name="Be")-(select sq.marks from student\_qualifications sq where studentid =1 and name="Be"))Marks\_Difference from student s join student\_qualifications sq; |
|  |
| 1. Display all student who are not joined any of the batch. |
| select \* from student where namefirst not in(select s.namefirst from student s join batch\_students bs on s.id=bs.studentid); |
|  |
| 1. Display all course\_batches details who are starting on the same day as ‘Batch1’. |
| select \* from course\_batches where starton=(select starton from course\_batches where name='batch1'); |
|  |
| 1. Display all students whose 10th marks is more than student ‘Neel’s 10th marks. |
| select namefirst,sq.name,sq.marks from student s join student\_qualifications sq on s.id=sq.studentid where sq.name=10 and marks>(select sq.marks from student s join student\_qualifications sq on s.id=sq.studentid where sq.name=10 and s.namefirst='neel'); |
|  |
| 1. Get all student with their qualification details who have highest marks in ‘BE’. |
| select namefirst, marks,name from student s join student\_qualifications sq on s.id =sq.studentid where name='be' and marks= (select max(sq.marks) from student s join student\_qualifications sq on s.id=sq.studentid where name='be'); |
|  |
| 1. Get all student with their qualification details who have second highest marks in ‘BE’. |
| select s.\*,sq.marks from student s join student\_qualifications sq on s.id=sq.studentid where sq.marks=(select max(marks) from student\_qualifications where marks < (select max(marks) from student\_qualifications)); |
|  |
| 1. Display the student and student\_qualification details who have scored the maximum marks in ‘BE’ |
| select \* from student s join student\_qualifications sq on s.id=sq.studentid where name="be" and marks=(select max(marks) from student\_qualifications sq where name="be"); |
|  |
| 1. Display the student details who have scored the maximum marks in ‘BE’ |
| select s.\* from student s join student\_qualifications sq on s.id=sq.studentid where name="be" and marks=(select max(marks) from student\_qualifications sq where name="be"); |
|  |
| 1. Display the student details who have scored the minimum marks in ‘10’ std. |
| select s.\* from student s join student\_qualifications sq on s.id=sq.studentid where name="10" and marks=(select max(marks) from student\_qualifications sq where name="10"); |
|  |
| 1. Display all student and student\_qualification details of those students who have scored marks more than ‘RAJAN’ in ‘BE’. |
| select \* from student s join student\_qualifications sq on s.id=sq.studentid where sq.name="BE" and sq.marks>(select sq.marks from student s join student\_qualifications sq on s.id=sq.studentid where s.namefirst="rajan" and sq.name="BE"); |
|  |
| 1. Display all student who have done ‘BE’ in the same year as of studentID 16. |
| select s.id,namefirst, namelast,name,year from student s join student\_qualifications sq on s.id=sq.studentid where sq.name="BE" and sq.year=(select year from student\_qualifications where name="BE" and studentID=16); |
|  |
| 1. Display all odd records. |
| select \* from student where id in(select id from student where id%2=1); |
|  |
| 1. Calculate the sum of marks student wise of their qualifications (i.e. 10th, 12th and BE marks) |
| Done but not saved |
|  |
| 1. Display students’ details who are not having ***'Aadhaar'*** card. |
| select \* from student where id not in(select studentid from student\_cards where name="aadhaar"); |
|  |