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.

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| 1. Display all student who have taken admission in more than 2 batches. |
| select \* from student where id in (select studentid from batch\_students group by studentid having count(studentid) > 2); |
|  |
| 1. Display the student detail who have joined the same batch of the student ‘saleel’. |
| select \* from student where id in(select studentid from batch\_students where batchid in  (select batchid from batch\_students where studentid = (select id from student where namefirst = 'saleel'))group by studentid); |
|  |
| 1. Display all courses where least number of students have taken the admission. |
| select \* from course where id in(select courseid from course\_batches where id in(select batchid from batch\_students group by batchid having count(studentid) =(select min(r) from (select batchid r1, count(studentid) r from batch\_students group by batchid having count(studentid))e))); |
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| 1. Display student details who have not taken the admission. |
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| 1. Get all courses where no modules are defined in course\_modules table. |
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| 1. Display course*\_batches* details where student has taken the admission. |
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| 1. Display all students whose marks of ‘BE’ is more than ‘ULKA’ marks in ‘BE’. |
| select \* from student\_qualifications where marks > (select marks from student\_qualifications where studentid in(select id from student where namefirst='ulka' and name='be')) and name='be'; |
|  |
| 1. Display all students whose marks are more than ‘saleel’ marks in 10th std. |
| select \* from student\_qualifications where marks > (select marks from student\_qualifications where studentid in( select id from student where namefirst='saleel') and name=10) and name=10; |
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| 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 student where id in (select studentid from student\_phone group by studentid having count(number) > 2); |
|  |
| 1. Display marks for the studentID 1 and 7 who have done ‘BE’. (Note: the marks must be displayed side by side). |
| select c1.marks as "Student ID : 1" ,c2.marks as "Student ID : 7" from (select marks from student\_qualifications where name='be' and studentid=1 )c1 ,(select marks from student\_qualifications where name='be' and studentid=7)c2; |
|  |
| 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 c1.marks as "Student ID : 1" ,c2.marks as "Student ID : 7",abs(c1.marks-c2.marks) as "Marks Difference" from (select marks from student\_qualifications where name='be' and studentid=1 )c1 ,(select marks from student\_qualifications where name='be' and studentid=7)c2; |
|  |
| 1. Display all student who are not joined any of the batch. |
| select \* from student where id not in(select studentid from batch\_students); |
|  |
| 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 \* from student s, (select \* from student\_qualifications where marks > (select marks from student\_qualifications where studentid in ( select id from student where namefirst = 'neel') and name=10) and name=10) sq where s.id=sq.studentid; |
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| 1. Get all student with their qualification details who have highest marks in ‘BE’. |
| select \* from student s,(select \* from student\_qualifications where marks = (select max(m1) from (select marks m1 from student\_qualifications where name='be') r1) and name='be') sq where s.id=sq.studentid; |
|  |
| 1. Get all student with their qualification details who have second highest marks in ‘BE’. |
| select \* from student\_qualifications where marks in (select max(marks) from student\_qualifications where name='be' and marks < (select max(marks) from student\_qualifications where name='be')) and name='be'; |
|  |
| 1. Display the student and student\_qualification details who have scored the maximum marks in ‘BE’ |
| select \* from student s,(select \* from student\_qualifications where marks = (select max(m1) from (select marks m1 from student\_qualifications where name='be') r1) and name='be') sq where s.id=sq.studentid; |
|  |
| 1. Display the student details who have scored the maximum marks in ‘BE’ |
| select \* from student s,(select studentid from student\_qualifications where marks = (select max(m1) from (select marks m1 from student\_qualifications where name='be') r1) and name='be') sq where s.id=sq.studentid; |
|  |
| 1. Display the student details who have scored the minimum marks in ‘10’ std. |
| select \* from student s,(select \* from student\_qualifications where marks = (select min(m1) from (select marks m1 from student\_qualifications where name=10) r1) and name=10) sq where s.id=sq.studentid; |
|  |
| 1. Display all student and student\_qualification details of those students who have scored marks more than ‘RAJAN’ in ‘BE’. |
| select s.\*,e.\* from student s,(select \* from student\_qualifications where marks > (select marks from student\_qualifications where studentid = ( select id from student where namefirst='rajan' ) and name= 'be') and name='be')e where e.studentid=s.id; |
|  |
| 1. Display all student who have done ‘BE’ in the same year as of studentID 16. |
| select \* from student where id in (select studentid from student\_qualifications where name='be' and year in (select year from student\_qualifications where studentid=16 and name='be')); |
|  |
| 1. Display all odd records. |
| select \* from student where id % 2=1; |
|  |
| 1. Calculate the sum of marks student wise of their qualifications (i.e. 10th, 12th and BE marks) |
| select studentid,sum(marks) as sum\_of\_marks from student\_qualifications group by studentid; |
|  |
| 1. Display students’ details who are not having ***'Aadhaar'*** card. |
| select \* from student where id in (select studentid from student\_cards where studentid not in(select studentid from student\_cards where name = 'aadhaar' group by studentid) group by studentid); |
|  |