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 student.namefirst as 'Student Name',e.\* from (select studentid 'StudentID', count(\*) 'No Of batches Joined' from batch\_students group by studentid having count(\*)>2)e join student where e.StudentID=student.id; |
|  |
| 1. Display the student detail who have joined the same batch of the student ‘saleel’. |
| select \* from student where id in (select distinct studentid from batch\_students where batchId in (Select batchId from batch\_students join student where student.id=batch\_students.studentid and namefirst="saleel" group by batchId)); |
|  |
| 1. Display all courses where least number of students have taken the admission. |
| select distinct course.name from course join(select \* from course\_batches join (Select batchid from (Select batchid,count(\*) count from batch\_students group by batchid) a join (select min(b.count) ct from (Select batchid,count(\*) count from batch\_students group by batchid) b) c where a.count=c.ct) t1 where course\_batches.id=t1.batchid) t2 where course.id=t2.courseid; |
|  |
| 1. Display student details who have not taken the admission. |
| select \* from student where id not in(Select studentid from batch\_students); |
|  |
| 1. Get all courses where no modules are defined in course\_modules table. |
| select \* from course where id not in (select courseID from course\_modules group by courseID); |
|  |
| 1. Display course*\_batches* details where student has taken the admission. |
| select \* from course\_batches where id in (select batchid from batch\_students); |
|  |
| 1. Display all students whose marks of ‘BE’ is more than ‘ULKA’ marks in ‘BE’. |
| select student.\* from student,student\_qualifications where student.id=student\_qualifications.studentid and name = 'BE' and marks > (select marks from student\_qualifications where name = 'BE' and studentid = (select id from student where namefirst = 'ULKA')); |
|  |
| 1. Display all students whose marks are more than ‘saleel’ marks in 10th std. |
| select student.\* from student,student\_qualifications where student.id=student\_qualifications.studentid and name = 10 and marks > (select marks from student\_qualifications where name = 10 and studentid = (select id from student where 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 student where id = (select studentid from student\_phone group by studentid having count(distinct number)>=3); |
|  |
| 1. Display marks for the studentID 1 and 7 who have done ‘BE’. (Note: the marks must be displayed side by side). |
| select t1.marks 'StudentId 1',t2.marks 'StudentId 2' from (select marks from student\_qualifications where name='BE' and studentid = 1) t1,(select marks from student\_qualifications where name='BE' and studentid = 7) t2; |
|  |
| 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 t1.marks 'StudentId 1',t2.marks 'StudentId 2', abs(t1.marks-t2.marks) 'Marks Difference' from (select marks from student\_qualifications where name='BE' and studentid = 1) t1,(select marks from student\_qualifications where name='BE' and studentid = 7) t2; |
|  |
| 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 student.\* from student,student\_qualifications where student.id=student\_qualifications.studentid and name=10 and marks > (select marks from student\_qualifications where name=10 and studentid = (Select id from student where namefirst='Neel')); |
|  |
| 1. Get all student with their qualification details who have highest marks in ‘BE’. |
| Select \* from student,student\_qualifications where student.id=student\_qualifications.studentid and name = 'BE' and marks = (select max(marks) from student\_qualifications where name="BE"); |
|  |
| 1. Get all student with their qualification details who have second highest marks in ‘BE’. |
| select \* from student,student\_qualifications where student.id=student\_qualifications.studentid and name = 'BE' and student.id in (select studentid from (select \*,rank() over(order by marks desc) R1 from student\_qualifications where name = 'BE' and marks < (select max(marks) from student\_qualifications where name='BE' order by marks desc)) t where R1=1 ); |
|  |
| 1. Display the student and student\_qualification details who have scored the maximum marks in ‘BE’ |
| Select \* from student,student\_qualifications where student.id=student\_qualifications.studentid and name = 'BE' and marks = (select max(marks) from student\_qualifications where name="BE"); |
|  |
| 1. Display the student details who have scored the maximum marks in ‘BE’ |
| select \* from student where id in (select studentid from student\_qualifications where name='BE' and marks = (select max(marks) from student\_qualifications where name="BE")); |
|  |
| 1. Display the student details who have scored the minimum marks in ‘10’ std. |
| select \* from student where id in (select studentid from student\_qualifications where name=10 and marks = (select min(marks) from student\_qualifications 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,student\_qualifications where student.id=student\_qualifications.studentid and name = 'BE' and marks > (select marks from student\_qualifications where studentid = (select id from student where namefirst="RAJAN") and name='BE'); |
|  |
| 1. Display all student who have done ‘BE’ in the same year as of studentID 16. |
| select student.\*,year,name from student,student\_qualifications where student.id = student\_qualifications.studentid and name="BE" and student\_qualifications.year in (select year from student\_qualifications where studentid=16 and name = 'BE'); |
|  |
| 1. Display all odd records. |
| select \* from (select \* from student where id%2=1) e; |
|  |
| 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 name="aadhaar"); |
|  |