Assignment

Feb20/ DBT/ 011

Database Technologies

Diploma in Advance Computing

February 2020

**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*** 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.\* from student, batch\_students where student.ID = batch\_students.studentID and batch\_students.studentID in (select studentID from batch\_students group by studentID having count(studentID) > 2); |
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| 1. Display the student detail who have joined the same batch of the student ‘saleel’. |
| select student.\* from student, batch\_students where student.ID = batch\_students.studentid and batchID in (select batchID from student, batch\_students where student.ID = batch\_students.studentID and namefirst='saleel'); |
|  |
| 1. Display all courses where least number of student have taken the admission. |
| select course.\* from batch\_students, course\_batches, course where batch\_students.batchid = course\_batches.id andcourse\_batches.courseID = course.ID and batch\_students.studentid in (select studentID from batch\_students group by studentID having count(studentID ) = (select min(r1) from (select studentID, count(\*) R1 from batch\_students group by studentID) x)); |
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| 1. Display student details who have not taken the admission. |
| select student.\* from student where not exists (select \* from batch\_students where student.id = batch\_students.studentID); |
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| 1. Get all courses where no modules are defined in course\_modules table. |
| select course.\* from course where not exists (select \* from course\_modules where course.id = course\_modules.courseid); |
|  |
| 1. Display course*\_batches* details where student has taken the admission. |
| select \* from course\_batches where exists (select \* from batch\_students where course\_batches.ID = batch\_students.batchID) |
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| 1. Display all students whose marks of ‘BE’ is more than ‘ULKA’ marks in ‘BE’. |
| select \* from student, student\_qualifications where student.ID = student\_qualifications.studentID and name='BE' and marks >(select marks from student, student\_qualifications where  student.ID = student\_qualifications.studentID and namefirst='ulka' and name='BE'); |
|  |
| 1. Display all students whose marks are more than ‘saleel’ marks in 10th std. |
| select \* from student, student\_qualifications where student.id = student\_qualifications.studentID and marks > (select marks from student, student\_qualifications where student.id = student\_qualifications.studentID and student.namefirst = 'saleel' and name=10) and student\_qualifications.name=10; |
|  |
| 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(\*)>3); |
|  |
| 1. Display marks for the studentID 1 and 7 who have done ‘BE’. (Note: the marks must be displayed side by side). |
| select (select marks from student\_qualifications where student\_qualifications.name='BE' and studentid = 1) as "StudentID 1", (select marks from student\_qualifications where student\_qualifications.name='BE' and studentid = 7) as "StudentID 7"; |
|  |
| 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 (select marks from student\_qualifications where student\_qualifications.name='BE' and studentid = 1) as "StudentID 1", (select marks from student\_qualifications where student\_qualifications.name='BE' and studentid = 7) as "StudentID 7", abs((select marks from student\_qualifications where student\_qualifications.name='BE' and studentid = 1) - (select marks from student\_qualifications where student\_qualifications.name='BE' and studentid = 7)) as "Marks Difference"; |
|  |
| 1. Display all student who are not joined any of the batch. |
| select \* from student where not exists (select \* from batch\_students where student.ID = batch\_students.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 course\_batches.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 marks > (select marks from student, student\_qualifications where student.id = student\_qualifications.studentID and namefirst='neel' and student\_qualifications.name='10') and student\_qualifications.name='10'; |
|  |
| 1. Get all student with their qualification details who have highest marks in ‘BE’. |
| select \* from student, student\_qualifications where student.id = student\_qualification.studentID and marks = (select max(marks) from student\_qualifications where student\_qualifications.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 marks = (select max(marks) from student\_qualifications where marks < (select max(marks) from student\_qualifications where student\_qualifications.name='BE')); |
|  |
| 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 in (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, student\_qualifications where student.id = student\_qualifications.studentID and name = 'BE' and marks in (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, student\_qualifications where student.id = student\_qualifications.studentID and name = '10' and marks in (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, student\_qualifications where student.ID = student\_qualifications.studentID and namefirst='rajan' and name='BE'); |
|  |
| 1. Display all student who have done ‘BE’ in the same year as of studentID 16. |
| select \* from student, student\_qualifications where student.id = student\_qualifications.studentID and year in(select year from student\_qualifications where name='BE' and studentid=16); |
|  |
| 1. Display all odd records. |
| select namefirst, namelast, dob, emailid from (select @x:= @x +1 as R1, mod(@x,2) R2, student.\* from student, (select @x:=0) T1) T2 where R2=0; |
|  |
| 1. Calculate the sum of marks student wise of their qualifications (ie 10th, 12th and BE marks) |
| select studentID, sum(marks) from (select \* from student\_qualifications where studentID in (select studentID from student\_qualifications where name = 'be')) T1 where name<>'dip' group by studentID; |
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