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 (select s.\*,count(bs.batchid) batch from student s join batch\_students bs on s.id=bs.studentid group by bs.studentid)e where e.batch>2; |
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| 1. Display the student detail who have joined the same batch of the student ‘saleel’. |
| select \* from (select bs.batchid as R, s.\* from student s inner join batch\_students bs on s.id=bs.studentid)e where r=1 or r=6; |
|  |
| 1. Display all courses where least number of students have taken the admission. |
| select distinct c.\* from course c join course\_batches cb on c.id=cb.courseid where cb.capacity in(select min(cb.capacity) from course\_batches cb join course c on c.id=cb.courseid); |
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| 1. Display student details who have not taken the admission. |
| select \* from student s where s.id not in(select s.id from student s join batch\_students bs on s.id=bs.studentid); // check this one again |
|  |
| 1. Get all courses where no modules are defined in course\_modules table. |
| select e.id,e.name,if(e.module=1,'N/A','')module from(select c.id,c.name,isnull(cm.moduleid) module from course c left join course\_modules cm on c.id=cm.courseid)e where module=1; |
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| 1. Display course*\_batches* details where student has taken the admission. |
| select cb.\* from course\_batches cb where cb.id in(select bs.batchid from batch\_students bs where cb.id=bs.batchid); |
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| 1. Display all students whose marks of ‘BE’ is more than ‘ULKA’ marks in ‘BE’. |
| select s.\* from student\_qualifications sq inner join student s on sq.studentid=s.id where sq.marks > all(select sq.marks from student\_qualifications sq inner join student s on s.id=sq.studentID where s.namefirst="ulka" and sq.name="be") and sq.name="be"; |
|  |
| 1. Display all students whose marks are more than ‘saleel’ marks in 10th std. |
| select sq.\* from student s inner join student\_qualifications sq on s.id=sq.studentID where sq.marks > all (select sq.marks from student\_qualifications sq inner join student s on s.id=sq.studentid where namefirst="saleel" and sq.name=10) and sq.name="10"; |
|  |
| 1. Display students whose DOB is as same as ‘kaushal’ |
| select s.namefirst, s.DOB from student s where s.DOB = (select s.DOB from student s where s.namefirst="kaushal"); |
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| 1. Display all student details who have three or more phone numbers. |
| select \* from (select s.namefirst,count(sp.id) r1 from student s inner join student\_phone sp on s.id = sp.studentID group by s.namefirst)e where r1 > 2; |
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| 1. Display marks for the studentID 1 and 7 who have done ‘BE’. (Note: the marks must be displayed side by side). |
| Select \* from (select marks as “StudentID 1” from student\_qualifications where studentID in (1) and name=”BE”) as alias1, (select marks as “StudentID 7” from student\_qualifications where studentID in (7) and name=”BE”) as alias2; |
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| 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 "studentID 1", "studentID 7", "studentID 7" - "studentID 1" as "marks difference" from (select marks as "StudentID 1" from student\_qualifications where studentID in (1) and name="BE") as alias1, (select marks as "StudentID 7" from student\_qualifications where studentID in (7) and name="BE") as alias2; |
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| 1. Display all student who are not joined any of the batch. |
| select s.\* from student s where s.namefirst not in (select s.namefirst from student s inner join batch\_students bs on s.id = bs.studentid); |
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| 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”); |
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| 1. Display all students whose 10th marks is more than student ‘Neel’s 10th marks. |
| select \* from student s join student\_qualifications sq on s.id=sq.studentid where name='10' and marks > (select marks from student\_qualifications sq join student s on s.id=sq.studentid where name='10' and namefirst='neel'); |
|  |
| 1. Get all student with their qualification details who have highest marks in ‘BE’. |
| select s.namefirst,sq.marks from student s join student\_qualifications sq on s.id=sq.studentid where name='be' and marks in (select max(marks) from student\_qualifications sq where name='be'); |
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| 1. Get all student with their qualification details who have second highest marks in ‘BE’. |
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| 1. Display the student and student\_qualification details who have scored the maximum marks in ‘BE’ |
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| 1. Display the student details who have scored the maximum marks in ‘BE’ |
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| 1. Display the student details who have scored the minimum marks in ‘10’ std. |
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| 1. Display all student and student\_qualification details of those students who have scored marks more than ‘RAJAN’ in ‘BE’. |
| select namefirst,marks from student s join student\_qualifications sq on s.id=sq.studentid where name='be' and marks>(select marks from student s join student\_qualifications sq on s.id=sq.studentid where name='be' and namefirst='rajan'); |
|  |
| 1. Display all student who have done ‘BE’ in the same year as of studentID 16. |
| select namefirst,year from student s join student\_qualifications sq on s.id=sq.studentid where year=(select year from student\_qualifications where name="be" and studentid=16); |
|  |
| 1. Display all odd records. |
| select \* from (select row\_number() over() r1,empno,ename from emp)e where r1%2=1; |
|  |
| 1. Calculate the sum of marks student wise of their qualifications (i.e. 10th, 12th and BE marks) |
| select studentID,sum(marks) from student\_qualifications sq where studentid in (select studentID from student\_qualifications sq where name="10" and name="12" or name="BE" ) and name!="DIP" group by(studentid); |
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| 1. Display students’ details who are not having ***'Aadhaar'*** card. |
| select distinct s.\* from student\_cards sc inner join student s on s.id=sc.studentID where sc.name not in (select sc.name from student s inner join student\_cards sc on s.id = sc.studentID where sc.name="aadhaar"); |
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