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 studentid,count(batchid) from batch\_students group by studentid having count(batchid)>2)e , student s where s.id=e.studentid; |
|  |
| 1. Display the student detail who have joined the same batch of the student ‘saleel’. |
| select \* from (select studentid from (select batchid from (select id,namefirst from student where namefirst='saleel')e, batch\_students bs where e.id=bs.studentid)d, batch\_students bs group by studentid)e,student s where s.id=e.studentid; |
|  |
| 1. Display all courses where least number of students have taken the admission. |
| select \* from course\_batches cb where cb.id not in (select batchid from batch\_students group by batchid); |
|  |
| 1. Display student details who have not taken the admission. |
| select \* from student where id not in (select studentid from batch\_students group by studentid); |
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| 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 cm group by courseid); |
|  |
| 1. Display course*\_batches* details where student has taken the admission. |
| select \* from course\_batches cb, (select batchid from batch\_students group by batchid)e where cb.id=e.batchid; |
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| 1. Display all students whose marks of ‘BE’ is more than ‘ULKA’ marks in ‘BE’. |
| select \* from student,(select studentid from student\_qualifications sqq ,(select marks from student\_qualifications sq ,(select id from student where namefirst="ulka") f where f.id=sq.studentid and name="be") g where sqq.marks>g.marks and sqq.name="be") h where student.id=h.studentid ; |
|  |
| 1. Display all students whose marks are more than ‘saleel’ marks in 10th std. |
| select \* from student,(select studentid from student\_qualifications sqq ,(select marks from student\_qualifications sq ,(select id from student where namefirst="saleel") f where f.id=sq.studentid and name="10") g where sqq.marks>g.marks and sqq.name="10") h where student.id=h.studentid ; |
|  |
| 1. Display students whose DOB is as same as ‘kaushal’ |
| select \* from student where dob =(select dob from student s where s.namefirst="kaushal") ; |
|  |
| 1. Display all student details who have three or more phone numbers. |
| select \* from student,(select studentid from student\_phone group by studentid having count(number)>2)e where student.id=e.studentid; |
|  |
| 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 studentid=1 and name="be")"StudentId 1", (select marks from student\_qualifications where studentid=7 and name="be")"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 studentid=1 and name="be")"studentid 1", (select marks from student\_qualifications where studentid=7 and name="be")"studentid 7",abs((select marks from student\_qualifications where studentid=1 and name="be") - (select marks from student\_qualifications where studentid=7 and name="be")) "marks difference"; |
|  |
| 1. Display all student who are not joined any of the batch. |
| select \* from student where id not in (select studentid from batch\_students group by studentid); |
|  |
| 1. Display all course\_batches details who are starting on the same day as ‘Batch1’. |
| select \* from course\_batches cb where cb.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 studentid from student\_qualifications sqq where marks>(select marks from student\_qualifications sq,(select id from student where namefirst="neel")e where e.id=sq.studentid and name='10' ) and name='10')d where s.id=d.studentid; |
|  |
| 1. Get all student with their qualification details who have highest marks in ‘BE’. |
| select \* from student ,(select studentid from student\_qualifications where marks=(select max( marks) from student\_qualifications where name="be") and name="be")a where id=a.studentid ; |
|  |
| 1. Get all student with their qualification details who have second highest marks in ‘BE’. |
| select \* from student where id in (select studentid from student\_qualifications sqq where marks=(select max(marks) from (select marks,studentid from student\_qualifications sqq where marks not in (select marks from student\_qualifications where marks=(select max( marks) from student\_qualifications where name="be") and name="be") and name="be")dd ) and name='be') ; |
| 1. Display the student and student\_qualification details who have scored the maximum marks in ‘BE’ |
| select \*from student\_qualifications sqq, ( select \* from student ,(select studentid from student\_qualifications where marks=(select max( marks) from student\_qualifications where name="be") and name="be")a where id=a.studentid)ed where sqq.studentid=ed.id; |
|  |
| 1. Display the student details who have scored the maximum marks in ‘BE’ |
| select \* from student ,(select studentid from student\_qualifications where marks=(select max( marks) from student\_qualifications where name="be") and name="be")a where id=a.studentid ; |
|  |
| 1. Display the student details who have scored the minimum marks in ‘10’ std. |
| select \* from student ,(select studentid from student\_qualifications where marks=(select min( marks) from student\_qualifications where name="10") and name="10")a where id=a.studentid ; |
|  |
| 1. Display all student and student\_qualification details of those students who have scored marks more than ‘RAJAN’ in ‘BE’. |
| select \* from student,(select studentid from student\_qualifications sqq ,(select marks from student\_qualifications sq ,(select id from student where namefirst="rajan") f where f.id=sq.studentid and name="be") g where sqq.marks>g.marks and sqq.name="be") h where student.id=h.studentid ; |
|  |
| 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 year=(select year from student\_qualifications where studentid=16 and name='be') and name='be'); |
|  |
| 1. Display all odd records. |
| select \* from student where id%2!=0; |
|  |
| 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 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'); |
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