Assignment

Sept23/ DBT/ 009

Database Technologies

Diploma in Advance Computing

September 2023

**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 and with their address* from *student* and *student\_address tables*. |
| select namefirst, namelast, address from student, student\_address where student.id=student\_address.studentid; |
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| 1. Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| select namefirst, namelast, emailid, q.\* from student s, student\_qualifications q where s.id=q.studentid; |
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| 1. Display *(namefirst, namelast, emailID, college, and university)* who have studied in 'Yale University'. *(Use student, and student\_qualification relation)* |
| select student.id, namefirst, namelast, emailID, college, university from student, student\_qualifications where university = "Yale University" and student.id=student\_qualifications.studentid; |
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| 1. Display all student details his phone details and his qualification details. *(Use student, student\_phone and student\_qualification relation)* |
| select namefirst,namelast, dob, emailID, number, isActive, college, university, name, marks, year from student s, student\_phone p, student\_qualifications q where s.id=p.studentid=q.studentid;  select s.\*, p.\*, q.\* from student s inner join student\_phone p inner join student\_qualifications q where s.id=p.studentid=q.studentid; |
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| 1. Display *(studentID, namefirst, namelast, name, college, university, and marks)* whose name is ‘BE’.*(Use student, and student\_qualification relation)* |
| select studentID, namefirst, namelast, name, college, university, marks from student join student\_qualifications where name="BE" and student.ID=student\_qualifications.studentID; |
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| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| select m.name, m.duration from course\_batches cb, modules m, course\_modules cm where cb.courseID = cm.courseID and cm.moduleID = m.ID and cb.name="Batch1"; |
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| 1. Display student information along with his batch details who have joined in “Batch1”. |
| select \* from batch\_students inner join course\_batches where course\_batches.name="Batch1" and batchID = course\_batches.ID; |
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| 1. Display module names for “PG-DAC” course. |
| select m.name, c.name from course c join modules m where c.name="PG-DAC"; |
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| 1. Display *namefirst, namelast, and batch name for all students*. |
| select namefirst, namelast, cb.name from student s join batch\_students bs join course\_batches cb ON batchID = cb.ID and studentID = s.ID; |
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| 1. Display *(namefirst, namelast, phone number, and emailid)* whose student ID is 13. |
| select namefirst, namelast, number, emailid from student natural join student\_phone; |
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| 1. Display *(namefirst and count the total number of phones a student is having)* for all student. |
| select namefirst, count(number) from student, student\_phone where student.id = student\_phone.studentID group by (namefirst); |
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| 1. Get student’s *(namefirst, namelast, DOB, address, name, college, university, marks, and year)*. |
| select s.namefirst, s.namelast, s.dob, sa.address, sq.name, sq.college, sq.university, sq.marks, sq.year from student s, student\_address sa, student\_qualifications sq where s.id = sq.studentID and s.id=sa.studentID; |
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| 1. Get *(namefirst, namelast, emailID, phone number, and address)* whose faculty name is ‘ketan’. |
| select s.namefirst, s.namelast, s.emailID, sp.number, sa.address from faculty s, faculty\_address sa, faculty\_phone sp where sp.facultyID = s.id AND s.ID = sa.facultyID AND s.namefirst like "Ketan"; |
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| 1. Get*(course name and batch name)*for all courses. |
| select c.name "Course Name", b.name "Batches" from course c left outer join course\_batches b ON b.courseID = c.ID; |
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| 1. Get all student details who have taken admission in ‘PG-DAC’ course. |
| select \*, c.name "Course" from student s, course c, course\_batches cb, batch\_students bs where c.ID = cb.courseID AND bs.batchID = cb.ID AND bs.studentID = s.ID and c.name like "PG-DAC"; |
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| 1. Get all course details which had started on ‘2016-02-01’. |
| select \*, starton "Start Date" from course, course\_batches where course.ID = course\_batches.courseID and starton = "2016-02-01"; |
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| 1. Get all course name and module names which are taught in ‘PG-DAC’ course. |
| select m.name, c.name from course c join modules m where c.name="PG-DAC"; |
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| 1. Display how many modules are taught in each course. |
| select c.name as "Course", count(m.name) from course c, modules m, course\_modules cm where c.ID = cm.courseID AND m.ID = cm.moduleID group by c.name;  select c.name as "Course", count(m.name) from course c, modules m, course\_modules cm where c.ID = cm.courseID AND m.ID = cm.moduleID group by c.name; |
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| 1. Display the student detail who are ‘BE’ graduate. |
| select c.name as "Course", count(m.name) from course c, modules m, course\_modules cm where c.ID = cm.courseID AND m.ID = cm.moduleID group by c.name; |
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| 1. Display all distinct course detail, where module for every course is designed. |
| select c.name as "Course", GROUP\_CONCAT(m.name) as "Modules" from course c, modules m, course\_modules cm where cm.courseID = c.Id and m.ID = cm.moduleID group by c.name; |
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| 1. Display studentID who have more than 2 phone numbers. |
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| 1. Display the courses where ‘JAVA1’ is taught. |
| select c.id, c.name, m.name from course c, modules m, course\_modules cm where cm.courseID = c.id and cm.moduleID = m.id and m.name like "Java1"; |
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| 1. Display all student who have taken admission in 6 months course. |
| select namefirst, namelast, c.name, duration from course c, course\_batches cb, batch\_students bs, student s where cb.courseID = c.id and bs.studentID = s.ID and bs.batchID = cb.ID and c.duration = 6; |
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| 1. Write a query to display the output in the following manner.   **'saleel', 'Aadhaar, Driving Licence, PAN, Voter ID, Passport, Debit, Credit'**  Arrange the data is ascending order of *nameFirst.* |
| select s.namefirst, group\_concat(sc.name) from student s inner join student\_cards sc ON sc.studentID = s.id order by namefirst; |
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| 1. Write a query to display the output in the following manner.   **'ruhan', 'DBDA, PG-DAC, Pre-DAC'** |
| select s.namefirst, group\_concat(c.name) as "Course" from course c, student s, course\_batches cb, batch\_students bs where s.ID = bs.studentID and bs.batchID = cb.id and cb.courseID = c.ID group by namefirst; |
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