Assignment

Mar24/ DBT/ 009

Database Technologies

Diploma in Advance Computing

March 2024

**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 s.\*, a.address from student s join student\_address a on s.ID=a.studentID; |
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| 1. Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| select s.namefirst, s.namelast, s.emailID, q.name from student s join student\_qualifications q on s.ID=q.studentID; |
|  |
| 1. Display *(namefirst, namelast, emailID, college, and university)* who have studied in 'Yale University'. *(Use student, and student\_qualification relation)* |
| select s.namefirst, s.namelast, s.emailID, q.name, q.college, q.university from student s join student\_qualifications q on s.ID=q.studentID where q.university='Yale university'; |
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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 s.\*, sp.number, sq.name from student s join student\_phone sp on s.ID=sp.studentID join student\_qualifications sq on s.id=sq.studentID ; |
|  |
| 1. Display *(studentID, namefirst, namelast, name, college, university, and marks)* whose name is ‘BE’.*(Use student, and student\_qualification relation)* |
| select s.namefirst,s.namelast, s.ID, sq.name, sq.college, sq.university, sq.marks from student s join student\_qualifications sq on s.ID=sq.studentID where sq.name='BE'; |
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| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| select m.duration ,m.name, cb.name from modules m join course\_batches cb on m.ID =cb.courseID where cb.name='Batch1'; |
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| 1. Display student information along with his batch details who have joined in “Batch1”. |
| select s.\* , cb.name from student s join course\_batches cb on s.ID=cb.courseID where cb.name='Batch1'; |
|  |
| 1. Display module names for “PG-DAC” course. |
| select c.name, m.name from course c join modules m join course\_modules cm on c.ID=cm.courseID and m.ID=cm.moduleID where c.name='PG-DAC'; |
|  |
| 1. Display *namefirst, namelast, and batch name for all students*. |
| select s.namefirst, s.namelast, cb.name from student s join course\_batches cb join batch\_students bs on s.id=bs.studentid and cb.id=bs.batchID; |
|  |
| 1. Display *(namefirst, namelast, phone number, and emailid)* whose student ID is 13. |
| select s.namefirst,s.namelast, sp.number from student s join student\_phone sp on  s.ID=sp.studentID where s.Id=13; |
|  |
| 1. Display *(namefirst and count the total number of phones a student is having)* for all student. |
| SELECT s.namefirst, COUNT(p.number) AS student\_phone  FROM student s  INNER JOIN student\_phone p ON s.id = p.studentid  GROUP BY s.namefirst; |
|  |
| 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 join student\_address sa join student\_qualifications sq on  s.ID=sa.studentID and sa.studentID=sq.studentId; |
|  |
| 1. Get *(namefirst, namelast, emailID, phone number, and address)* whose faculty name is ‘ketan’. |
| select f.namefirst, f.namelast, f.emailID, fp.number,fa.address from faculty f join faculty\_phone fp join faculty\_address fa on fp.facultyID=fa.facultyID and f.id=fp.facultyid  where f.namefirst='ketan'; |
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| 1. Get*(course name and batch name)*for all courses. |
| select c.name , cb.name from course c join course\_batches cb on c.ID=cb.courseID; |
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| 1. Get all student details who have taken admission in ‘PG-DAC’ course. |
| select distinct s.\*, c.name from student s join course c join course\_batches cb join batch\_students bs on s.ID= bs.studentID and c.id=cb.courseID where c.name="PG-DAC"; |
|  |
| 1. Get all course details which had started on ‘2016-02-01’. |
| select course.\* 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. |
| mysql> select c.name, m.name from course c join modules m join course\_modules cm on c.ID=cm.courseID and m.ID=cm.moduleId where c.name="PG-DAC"; |
|  |
| 1. Display how many modules are taught in each course. |
| select c.name, count( m.name) from course c join modules m join course\_modules cm on 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 s.\*, sq.name from student s join student\_qualifications sq on s.ID=sq.studentID where sq.name='BE'; |
|  |
| 1. Display all distinct course detail, where module for every course is designed. |
| select c.\* , m.name from course c cross join modules m cross join course\_modules cm on c.ID=cm.courseID and m.ID=cm.moduleID; |
|  |
| 1. Display studentID who have more than 2 phone numbers. |
| select s.ID, count(\*) from student s join student\_phone sp on s.Id= sp.studentID group by s.ID having count(\*)>2; |
|  |
| 1. Display the courses where ‘JAVA1’ is taught. |
| select c.\* from course c join modules m join course\_modules cm on c.ID=cm.courseID and m.ID=cm.moduleID where m.name='JAVA1'; |
|  |
| 1. Display all student who have taken admission in 6 months course. |
| select s.\* from student s join course c join course\_batches cb join batch\_students bs on s.ID=bs.studentID and cb.ID=bs.batchID and c.Id=cb.courseID where 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.ID,s.namefirst, group\_concat(c.name) from student s, student\_cards c where s.ID=c.studentId group by s.id, s.namefirst order by s.ID; |
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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) from student s inner join batch\_students bs on s.id=bs.studentid inner join course\_batches cb on cb.id=bs.batchid inner join course c on c.id=cb.courseid group by s.namefirst; |
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