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.

| 1. Display all *student and with their address* from *student* and *student\_address tables*. |
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| select s.namefirst, sa.address from student s join student\_address sa where s.id=sa.studentid; |
|  |
| 1. Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| select namefirst, namelast, emailID, name, college, university, marks, year from student s inner join student\_qualifications sq where s.id=sq.studentID; |
|  |
| 1. Display *(namefirst, namelast, emailID, college, and university)* who have studied in 'Yale University'. *(Use student, and student\_qualification relation)* |
| select namefirst, namelast, emailID, college, university from student s inner join student\_qualifications sq where s.id=sq.studentID and sq.university='Yale University';; |
|  |
| 1. Display all student details his phone details and his qualification details. *(Use student, student\_phone and student\_qualification relation)* |
| select s.\*, sp.\*, sq.\* from student s inner join student\_phone sp inner join student\_qualifications sq where s.id=sp.studentID=sq.studentID;  SELECT s.\*, sp.\*, sq.\* FROM student s INNER JOIN student\_phone sp ON s.id = sp.studentID INNER 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 sq.studentID, namefirst, namelast, name, college, university, marks from student s inner join student\_qualifications sq on s.id=sq.studentID where name='BE'; |
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| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| select group\_concat(m.name) 'Module names', m.duration from course\_modules cm inner join modules m on m.id=cm.moduleID inner join course\_batches cb on cb.courseID=cm.courseid where cb.name='batch1' group by m.duration; |
|  |
| 1. Display student information along with his batch details who have joined in “Batch1”. |
| select s.\*, cb.\* from course\_batches cb inner join batch\_students bs on cb.ID=bs.batchID inner join student s on s.id=bs.studentID where cb.name='Batch1'; |
|  |
| 1. Display module names for “PG-DAC” course. |
| select c.name, group\_concat(m.name) 'Module name' from course\_modules cm inner join modules m on m.id=cm.moduleID inner join course c on c.id=cm.courseID where c.name='PG-DAC'; |
|  |
| 1. Display *namefirst, namelast, and batch name for all students*. |
| select namefirst, namelast, cb.name from course\_batches cb inner join batch\_students bs on cb.id=bs.batchID inner join student s on bs.batchID=s.id group by namefirst, namelast, cb.name; |
|  |
| 1. Display *(namefirst, namelast, phone number, and emailid)* whose student ID is 13. |
| select namefirst, namelast, number, emailid from student s inner join student\_phone on s.id=studentID where s.id=13 group by namefirst, namelast, number, emailID; |
|  |
| 1. Display *(namefirst and count the total number of phones a student is having)* for all student. |
| select namefirst, count(number) from student s inner join student\_phone sp on s.id=studentID group by namefirst; |
|  |
| 1. Get student’s *(namefirst, namelast, DOB, address, name, college, university, marks, and year)*. |
| select namefirst, namelast, DOB, address, name, college, university, marks, year from student s inner join student\_address sa on s.id=sa.studentID inner join student\_qualifications sq on s.id=sq.studentID; |
|  |
| 1. Get *(namefirst, namelast, emailID, phone number, and address)* whose faculty name is ‘ketan’. |
| select s.namefirst, s.namelast, s.emailID, number from student s inner join student\_phone sp on s.id=sp.studentID inner join faculty f where f.namefirst='ketan' group by s.namefirst, s.namelast, s.emailID, sp.number; |
|  |
| 1. Get*(course name and batch name)*for all courses. |
| select c.name, group\_concat(cb.name) from course c inner join course\_batches cb on c.id=cb.courseID group by c.name; |
|  |
| 1. Get all student details who have taken admission in ‘PG-DAC’ course. |
| select s.\*, c.name from course\_batches cb inner join batch\_students bs on cb.id=bs.id inner join course c on c.id=cb.courseid inner join student s on s.id=bs.studentID where c.name='PG-DAC'; |
|  |
| 1. Get all course details which had started on ‘2016-02-01’. |
| select c.\* from course c inner join course\_batches cb on c.id=cb.courseID where date(starton)='2016-02-01'; (DATE Optional) |
|  |
| 1. Get all course name and module names which are taught in ‘PG-DAC’ course. |
| select c.name, group\_concat(m.name) from course c inner join course\_modules cm on c.id=cm.courseID inner join modules m on m.id=cm.moduleID where c.name='PG-DAC' group by c.name; |
|  |
| 1. Display how many modules are taught in each course. |
| select c.name, count(m.name) 'No of Modules', group\_concat(m.name)'Modules name' from course c inner join course\_modules cm on c.id=cm.courseID inner join modules m on m.id=cm.moduleID group by c.name; |
|  |
| 1. Display the student detail who are ‘BE’ graduate. |
| select s.namefirst, sq.name from student s inner 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.name, group\_concat(m.name) from course c join course\_modules cm on c.id=cm.courseID join modules m on m.id=cm.moduleID group by c.name;  select group\_concat(distinct c.name), m.name from course c join course\_modules cm on c.id=cm.courseID join modules m on m.id=cm.moduleID group by m.name; |
|  |
| 1. Display studentID who have more than 2 phone numbers. |
| select s.id, s.namefirst, group\_concat(distinct number) from student s inner join student\_phone sp on s.id=studentID group by s.id; |
|  |
| 1. Display the courses where ‘JAVA1’ is taught. |
| select c.name, m.name from course c join course\_modules cm on c.id=cm.courseID join modules m on m.id=cm.moduleID having m.name='Java1';  select c.name, m.name from course c join course\_modules cm on c.id=cm.courseID join modules m on m.id=cm.moduleID where m.name='Java1'; |
|  |
| 1. Display all student who have taken admission in 6 months course. |
| select c.name, c.duration from course c join course\_batches cb on c.id=cb.courseID join batch\_students bs on cb.id=bs.batchID group by c.name, c.duration having duration = 6;  select group\_concat(distinct c.name), c.duration from course c join course\_batches cb on c.id=cb.courseID join batch\_students bs on cb.id=bs.batchID group by c.duration having 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, group\_concat(name) from student s join student\_cards sc on s.id=studentID group by s.id; |
|  |
| 1. Write a query to display the output in the following manner.   **'ruhan', 'DBDA, PG-DAC, Pre-DAC'** |
| select namefirst, group\_concat(distinct c.name) from course c join course\_batches cb on c.id=cb.courseID join batch\_students bs on bs.batchID=cb.id join student s on bs.batchID=s.id group by namefirst; |
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