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*. |
| **select student.id, student.namefirst,student.namelast,student\_address.address from student inner join student\_address where student.id=student\_address.studentId;** |
|  |
| 1. Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| **select student.id, student.namefirst,student.namelast,student.emailID,student\_qualifications.name,student\_qualifications.college, student\_qualifications.university, student\_qualifications.marks, student\_qualifications.year from student inner join student\_qualifications where student.id=student\_qualifications.studentId;** |
|  |
| 1. Display *(namefirst, namelast, emailID, college, and university)* who have studied in 'Yale University'. *(Use student, and student\_qualification relation)* |
| **select student.id, student.namefirst,student.namelast,student.emailID,student\_qualifications.name, student\_qualifications.college, student\_qualifications.university, student\_qualifications.marks, student\_qualifications.year from student natural join student\_qualifications where 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.\*,p.number,sq.name,sq.college,sq.university,sq.marks,sq.year from student s, student\_phone p,student\_qualifications sq where s.id=p.studentID and p.studentID=sq.studentID;** |
|  |
| 1. Display *(studentID, namefirst, namelast, name, college, university, and marks)* whose name is ‘BE’.*(Use student, and student\_qualification relation)* |
| **select s.ID, s.namefirst, s.namelast, sq.name, sq.college, sq.university, sq.marks from student s inner join student\_qualifications sq where s.ID=sq.studentID and sq.name="BE";** |
|  |
| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| **select m.\* from course\_batches cb inner join course\_modules cm on cb.courseID = cm.courseID inner join modules m on cm.moduleId = m.ID where cb.name = "Batch1";** |
|  |
| 1. Display student information along with his batch details who have joined in “Batch1”. |
| **select s.\*, cb.\* from student s inner join batch\_students bs on s.ID = bs.studentID inner join course\_batches cb on bs.batchID = cb.ID and cb.name = "Batch1";** |
|  |
| 1. Display module names for “PG-DAC” course. |
| **select m.\*, c.name from modules m inner join course\_modules cm on m.ID = cm.moduleID inner join course c on cm.courseID = c.ID where c.name = "PG-DAC";** |
|  |
| 1. Display *namefirst, namelast, and batch name for all students*. |
| **select s.ID, s.namefirst,s.namelast,cb.name from student s inner join batch\_students bs on s.id=bs.studentID inner join course\_batches cb on cb.id=bs.batchid order by s.ID;** |
|  |
| 1. Display *(namefirst, namelast, phone number, and emailid)* whose student ID is 13. |
| **select distinct s.namefirst, s.namelast, s.emailID, sp.number from student s inner join student\_phone sp on s.id=sp.studentid and sp.studentid=13;** |
|  |
| 1. Display *(namefirst and count the total number of phones a student is having)* for all student. |
| **select s.namefirst, count(sp.number) from student s join student\_phone sp where s.id=sp.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 where s.id=sa.studentid and s.id=sq.studentid;**  **aliter,**  **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 where 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, fd.address from faculty f inner join faculty\_phone fp on f.id=fp.facultyID inner join faculty\_address fd on f.id=fd.facultyID where f.namefirst="ketan";** |
|  |
| 1. Get*(course name and batch name)*for all courses. |
| **select c.ID, c.name, cb.name from course c inner join course\_batches cb order by c.ID;** |
|  |
| 1. Get all student details who have taken admission in ‘PG-DAC’ course. |
| **select s.\* from course c inner join course\_batches cb on c.ID = cb.courseID inner join batch\_students bs on cb.ID = bs.batchID inner join student s on bs.studentID = s.ID where c.name = "PG-DAC" order by s.ID;** |
|  |
| 1. Get all course details which had started on ‘2016-02-01’. |
| **select c.\*, cb.starton from course c inner join course\_batches cb where c.ID = cb.courseID and starton = "2016-02-01";** |
|  |
| 1. Get all course name and module names which are taught in ‘PG-DAC’ course. |
| **select m.Id, m.name, c.name from modules m inner join course\_modules cm on m.ID = cm.moduleID inner join course c on cm.courseID = c.ID where c.name = "PG-DAC";** |
|  |
| 1. Display how many modules are taught in each course. |
| **select c.id, c.name, count(\*) No\_of\_Modules from course c inner join course\_modules cm on c.ID = cm.courseID inner join modules m on cm.moduleID = m.ID group by c.ID;** |
|  |
| 1. Display the student detail who are ‘BE’ graduate. |
| **select s.\*,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 distinct c.\*, m.name from modules m inner join course\_modules cm on m.ID = cm.moduleID inner join course c on cm.courseID = c.ID;** |
|  |
| 1. Display studentID who have more than 2 phone numbers. |
| **select s.ID, count(sp.number) Total\_No from student s inner join student\_phone sp on s.ID = sp.studentID group by s.ID having count(sp.number) > 2;** |
|  |
| 1. Display the courses where ‘JAVA1’ is taught. |
| **select \* from modules m inner join course\_modules cm on m.id=cm.moduleID inner join course c on cm.courseID=c.id where m.name="Java1";** |
|  |
| 1. Display all student who have taken admission in 6 months course. |
| **select s.id,s.namefirst,s.namelast,c.duration from course c inner join course\_batches cb on c.id=cb.courseID inner join batch\_students bs on cb.id=bs.batchID inner join student s on bs.studentID=s.id where c.duration=6 order by s.id;** |
|  |
| 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 concat(s.namefirst," ",group\_concat(sc.name)) from student\_cards sc inner join student s on s.id=sc.studentID group by s.namefirst;** |
|  |
| 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 bs.batchID=cb.ID inner join course c on cb.courseID=c.id group by s.namefirst;** |
|  |