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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| * Display all *student and with their address* from *student* and *student\_address tables*. |
| select student.namefirst, student.namelast, student\_address.address from student cross join student\_address; |
|  |
| * Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| select student.namefirst, student.namelast, student.emailID,student\_qualifications.\* from student Inner join student\_qualifications where student.ID=student\_qualifications.ID order by ID ; |
|  |
| * Display *(namefirst, namelast, emailID, college, and university)* who have studied in 'Yale University'. *(Use student, and student\_qualification relation)* |
| select student.namefirst, student.namelast, student.emailID,  student\_qualifications.college, student\_qualifications.university  from student Inner join student\_qualifications  where student\_qualifications.university= "Yale University" ; |
|  |
| * Display all student details his phone details and his qualification details. *(Use student, student\_phone and student\_qualification relation)* |
| Select \* from student\_qualifications join (Select student.ID ,namefirst ,namelast ,DOB ,emailID , number from student , student\_phone where student.id=student\_phone.studentID) a where student\_qualifications.studentID =a.id; |
|  |
| * 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 , student\_qualifications where student.id=studentId; |
|  |
| * Display the module name and the duration of the module for the batch “Batch1”. |
| select m.name , m.duration, cb.name from modules m inner join course\_modules cm on m.ID = cm.moduleID join  course\_batches cb on cm.courseID = cb.ID and cb.name = 'batch1'; |
|  |
| * 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 join course\_batches cb on bs.batchID = cb.ID and cb.name = 'batch1'; |
| select \* from student join (select studentid from course\_batches , batch\_students where course\_batches.id = batch\_students.batchid and name='Batch1') t on student.id = t.studentid; |
| * Display module names for “PG-DAC” course. |
| select m.name , c.name from modules m inner join course\_modules cm on m.ID = cm.moduleID join  course c on c.ID = cm.courseID and c.name = 'PG-DAC'; |
| * 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 join course\_batches cb on cb.ID = bs.batchID; |
|  |
| * 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 s.id = 13; |
|  |
| * 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 on s.ID =  sp.studentID group by s.namefirst; |
|  |
| * 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 on s.ID = sa.studentID join student\_qualifications sq on s.ID = sq.studentID; |
|  |
| * 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 inner join faculty\_phone  fp on f.ID = fp.facultyID join faculty\_address fa on f.ID = fa.facultyID where namefirst = 'ketan'; |
|  |
| * Get*(course name and batch name)*for all courses. |
| SELECT  s.ID,  s.[name],  STRING\_AGG(cb.[name], ', ') AS Batches  FROM course s  INNER JOIN course\_batches cb  ON s.ID = cb.courseID  GROUP BY s.ID, s.[name]; |
|  |
| * Get all student details who have taken admission in ‘PG-DAC’ course. |
| select distinct s.id, s.namefirst, 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  where c.name = 'PG-DAC'  order by s.ID; |
|  |
| * 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"; |
|  |
| * Get all course name and module names which are taught in ‘PG-DAC’ course. |
| select c.name , m.name from modules m inner join course\_modules cm on m.ID = cm.moduleID  join course c on c.ID = cm.courseID where c.name = 'PG-DAC'; |
|  |
| * Display how many modules are taught in each course. |
| select c.name , count(m.name) from course c inner join course\_modules cm on c.ID = cm.courseID join  modules m on cm.moduleID = m.ID group by c.name; |
|  |
| * Display the student detail who are ‘BE’ graduate. |
| select s.namefirst , sq.university  from student s join student\_qualifications sq  on s.ID = sq.studentID  where sq.[name] = 'BE' |
|  |
| * Display all distinct course detail, where module for every course is designed. |
| select distinct course.\* from course,course\_modules where course.id=course\_modules.courseid; |
|  |
| * Display studentID who have more than 2 phone numbers. |
| select student.id from student,student\_phone where student.id=student\_phone.studentid group by studentid having count(distinct number)>2; |
|  |
| * Display the courses where ‘JAVA1’ is taught. |
| select course.\* from course,course\_modules,modules where modules.id = course\_modules.moduleid and course\_modules.courseid=course.id and modules.name = 'JAVA1'; |
|  |
| * Display all student who have taken admission in 6 months course. |
| select distinct student.\* from course,course\_batches,batch\_students,student where student.id = batch\_students.studentid and batch\_students.batchid=course\_batches.id and course\_batches.courseid=course.id and duration = 6 order by student.id; |
|  |
| * 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 namefirst name,group\_concat(name) as cards from student,student\_cards where student.id = student\_cards.studentid group by studentid order by namefirst; |
|  |
| * Write a query to display the output in the following manner.   **'ruhan', 'DBDA, PG-DAC, Pre-DAC'** |
| select student.namefirst as name,group\_concat(course.name) as courses from student, batch\_students, course\_batches, course where course.id=course\_batches.courseid and course\_batches.id = batch\_students.batchid and student.id=batch\_students.studentid and namefirst='ruhan'; |
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