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 student.namefirst, student.namelast, student\_address.address from student cross join student\_address; |
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| 1. 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 ; |
|  |
| 1. 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" ; |
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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 \* 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; |
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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 , student\_qualifications where student.id=studentId; |
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| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| select course\_batches.name, modules.name, modules.duration from modules, course\_batches where course\_batches.name = 'Batch1'; |
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| 1. Display student information along with his batch details who have joined in “Batch1”. |
| select \* from student,(select studentid from course\_batches , batch\_students where course\_batches.id = batch\_students.batchid and name="Batch1") t where student.id = t.studentid; |
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| 1. Display module names for “PG-DAC” course. |
| select course.name,modules.name from modules inner join course where course.name = 'PG-DAC'; |
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| 1. Display *namefirst, namelast, and batch name for all students*. |
| select namefirst, namelast, course\_batches.name from student join course\_batches on course\_batches.courseID= student.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 inner join student\_phone on student.iD= student\_phone.studentId where student.Id=13; |
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| 1. Display *(namefirst and count the total number of phones a student is having)* for all student. |
| select namefirst as 'FirstName', count(\*) as 'Count of Phones', group\_concat(number) 'Phone\_Numbers' from student join student\_phone on student.iD= student\_phone.studentId group by student\_phone.studentid; |
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| 1. Get student’s *(namefirst, namelast, DOB, address, name, college, university, marks, and year)*. |
| select namefirst, namelast, DOB, name, college, university, marks, year,address from (select student.id, namefirst, namelast, DOB, name, college, university, marks, year from student inner join student\_qualifications where student.id= student\_qualifications.studentID) a join student\_address where a.id = student\_address.studentid ; |
|  |
| 1. Get *(namefirst, namelast, emailID, phone number, and address)* whose faculty name is ‘ketan’. |
| select a.id, namefirst, namelast, emailID, number,address  from (select student.id, namefirst, namelast, emailID, number  from student inner join student\_phone where student.id= student\_phone.studentID) a join student\_address where a.id = student\_address.studentid ; |
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| 1. Get*(course name and batch name)*for all courses. |
| select course.name as 'CourseName' , group\_concat(course\_batches.name) as ' BatchName'  from course join course\_batches where course.id = course\_batches.courseid group by course.name; |
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| 1. Get all student details who have taken admission in ‘PG-DAC’ course. |
| select \* from student,(select studentid from batch\_students ,(select course\_batches.id from course,course\_batches where course.id=course\_batches.courseid and course.name="PG-DAC") t where batch\_students.batchid=t.id)t1 where t1.studentid= student.id ; |
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| 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. |
| select course.name,t.name from course,(select courseid ,name from modules,course\_modules where modules.id = course\_modules.moduleid) t where course.id=t.courseid and course.name="PG-DAC"; |
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| 1. Display how many modules are taught in each course. |
| select course.id,name,count(\*) "count of modules" from course, course\_modules where course\_modules.courseid=course.id group by courseid; |
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| 1. Display the student detail who are ‘BE’ graduate. |
| select student.\* from student,student\_qualifications where student.id = student\_qualifications.studentid and name="BE"; |
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| 1. 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; |
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| 1. 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; |
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| 1. 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'; |
|  |
| 1. 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; |
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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 namefirst name,group\_concat(name) as cards from student,student\_cards where student.id = student\_cards.studentid group by studentid 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 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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