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 s1.namefirst,s1.namelast,s2.address from student s1,student\_Address s2 where s1.id=s2.id; * select namefirst, namelast, address from student natural join student\_address; |
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| 1. Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| select s1.namefirst,s1.namelast,s1.emailid,s2.\* from student s1,student\_qualifications s2 where s1.id=s2.studentid; |
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| 1. Display *(namefirst, namelast, emailID, college, and university)* who have studied in 'Yale University'. *(Use student, and student\_qualification relation)* |
| select s1.namefirst,s1.namelast,s1.emailid,s2.college,s2.university from student s1,student\_qualifications s2 where s1.id=s2.id having s2.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 s1.\*,s2.studentID,s2.name,s2.college,s2.university,s2.marks,s2.year,s3.number,s3.isActive from student s1,student\_qualifications s2,student\_phone s3 where s1.id=s2.id=s3.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 s2.studentID,s1.namefirst,s1.namelast,s2.name,s2.college,s2.university,s2.marks from student s1,student\_qualifications s2 where s1.id=s2.id having name='BE'; |
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| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| select m.name,duration,c.name from modules m join course\_batches c on m.id=c.id where c.name like 'Batch1'; |
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| 1. Display student information along with his batch details who have joined in “Batch1”. |
| select s.id,namefirst,namelast,dob,emailid,c.name, courseID,starton,endson,capacity,m.name,duration from student s join modules m join course\_batches c on s.id=m.id and m.id=c.id where c.name like 'Batch1'; |
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| 1. Display module names for “PG-DAC” course. |
| select m.name,c.name,c.duration from modules m inner join course c on m.duration=c.duration where c.name like 'PG-DAC';  select m.name,c.name,c.duration from modules m inner join course c using (duration) where c.name like 'PG-DAC'; |
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| 1. Display *namefirst, namelast, and batch name for all students*. |
| select namefirst,namelast,batchid,studentid,c.name from student s inner join course\_batches c inner join batch\_students b on s.id=b.studentid and c.id=b.batchid order by b.studentid; |
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| 1. Display *(namefirst, namelast, phone number, and emailid)* whose student ID is 13. |
| select distinct namefirst, namelast, emailID, number from student s inner join student\_phone sp on s.id = sp.studentID; |
|  |
| 1. Display *(namefirst and count the total number of phones a student is having)* for all student. |
| select namefirst,namelast,count(number) from student s inner join student\_phone sp on s.id = sp.studentID group by number,namefirst,namelast; |
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| 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 join student\_qualifications sq on s.id = sa.studentID and s.id = sq.studentID; |
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| 1. Get *(namefirst, namelast, emailID, phone number, and address)* whose faculty name is ‘ketan’. |
| select namefirst, namelast, emailID,number,address from faculty f inner join faculty\_address fa join faculty\_phone fp on f.id = fa.facultyID and f.Id = fp.facultyID; |
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| 1. Get*(course name and batch name)*for all courses. |
| select c.name, cb.name from course c inner 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 c.name, namefirst from student s inner join batch\_students bs inner join course\_batches cb inner join course c on s.id = bs.studentID and bs.batchID = cb.id and cb.courseID = c.id group by name, namefirst having name = 'pg-dac'; |
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| 1. Get all course details which had started on ‘2016-02-01’. |
| select c.name, starton from course c inner join course\_modules cm inner join course\_batches cb on c.id = cm.courseID and cm.courseID = cb.courseID where starton = '2016-02-01' group by c.name; |
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| 1. Get all course name and module names which are taught in ‘PG-DAC’ course. |
| select c.name, m.name from course c inner join modules m inner join course\_modules cm on c.id = cm.courseID and m.id = cm.moduleID where c.name = 'pg-dac'; |
| (doubt) |
| 1. Display how many modules are taught in each course. |
| select c.name, count(c.name) from course c inner join modules m inner join course\_modules cm on c.id = cm.courseID and m.id = cm.moduleID group by name; |
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| 1. Display the student detail who are ‘BE’ graduate. |
| select \* from student s inner join student\_qualifications sq on s.id = sq.studentID where sq.name = 'BE'; |
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| 1. Display all distinct course detail, where module for every course is designed. |
| select distinct m.name from course c inner join modules m join course\_modules cm on c.id = cm.courseID and m.id = cm.moduleID; |
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| 1. Display studentID who have more than 2 phone numbers. |
| select namefirst, count(number) from student s inner join student\_phone sp on s.id = sp.studentID group by studentID having count(number)>2; |
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| 1. Display the courses where ‘JAVA1’ is taught. |
| select m.name,c.name from course c join modules m join course\_modules cm on c.id = cm.courseid and m.id = cm.moduleid where m.name = 'java1'; |
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| 1. Display all student who have taken admission in 6 months course. |
| select namefirst,c.name, duration from course c join course\_batches cb join batch\_students bs join student s on c.id = cb.courseid and cb.courseid = bs.batchid and bs.batchid = s.id where duration=6 group by namefirst,c.name,duration; |
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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 from student s inner join student\_cards sc where s.ID = sc.studentID order by namefirst;  select namefirst, name from student s inner join student\_cards sc where s.ID = sc.studentID and namefirst = 'saleel';  select CONCAT("'",S.namefirst,"'", ",","'",GROUP\_CONCAT(SC.NAME),"'") AS R1 from student s inner join student\_cards sc where s.ID = sc.studentID and namefirst = 'saleel'; |
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| 1. Write a query to display the output in the following manner.   **'ruhan', 'DBDA, PG-DAC, Pre-DAC'** |
| select concat("'",s.namefirst, "'",",","'", group\_concat(c.name),"'") as r1 from student s join batch\_students bs join course\_batches cb join course c on s.id=bs.studentID and bs.batchid=cb.id and cb.courseID = c.id where namefirst = 'ruhan'; |
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