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 namefirst, address from student inner join student\_address on student.id = student\_address.studentid; |
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| 1. Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| select namefirst, emailid ,name, university, marks, year from student inner join student\_qualifications on student.id = student\_qualifications.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 namefirst,namelast,emailid,college,university from student inner join student\_qualifications on student.id=student\_qualifications.studentid where 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 inner join student\_phone on student.id=student\_phone.studentid inner join student\_qualifications on student\_phone.studentid=student\_qualifications.studentid; |
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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 inner join student\_qualifications on student.id=student\_qualifications.studentid where name='be'; |
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| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| select m.id,m.name,m.duration,cb.name from modules m inner join course\_modules cm on m.id=cm.moduleid inner join course\_batches cb on cm.courseid=cb.id where cb.name ='batch1'; |
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| 1. Display student information along with his batch details who have joined in “Batch1”. |
| select c.name ,cb.name from course c inner join course\_batches cb on c.id = cb.courseid; |
|  |
| 1. Display module names for “PG-DAC” course. |
| select \* from course c inner join course\_modules cm on c.id = cm.courseid inner join modules m on cm.moduleid = m.id having c.name = "pg-dac"; |
|  |
| 1. Display *namefirst, namelast, and batch name for all students*. |
| select s.id, namefirst,namelast,name from student s inner join batch\_students bs on s.id=bs.studentid inner join course\_batches cb on bs.batchid=cb.id order by s.id; |
|  |
| 1. Display *(namefirst, namelast, phone number, and emailid)* whose student ID is 13. |
| select s.id,s.namefirst,s.namelast,sp.number,s.emailid from student s inner join student\_phone sp on s.id=sp.studentid where s.id=13; |
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| 1. Display *(namefirst and count the total number of phones a student is having)* for all student. |
| select s.id, s.namefirst ,count(\*) as total\_no\_phones from student s inner join student\_phone sp on s.id=sp.studentid group by s.id; |
|  |
| 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 inner join student\_address sa on s.id=sa.studentid inner join student\_qualifications sq on 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,fa.address from faculty f inner join faculty\_phone fp on f.id=fp.facultyid inner join faculty\_address fa on fp.facultyid = fa.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 \* 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'; |
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| 1. Get all course details which had started on ‘2016-02-01’. |
| select \* from course c inner join course\_batches cb on c.id = cb.courseid where cb.starton='2016-02-01'; |
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| 1. Get all course name and module names which are taught in ‘PG-DAC’ course. |
| select \* from course c inner join course\_modules cm on c.id=cm.courseid inner join modules m on cm.moduleid=m.id where c.name='pg-dac';  or  select c.id, c.name,m.name from course c inner join course\_modules cm on c.id=cm.courseid inner join modules m on cm.moduleid=m.id where c.name='pg-dac'; |
|  |
| 1. Display how many modules are taught in each course. |
| select c.id,c.name,m.name from course c inner join course\_modules cm on c.id = cm.courseid inner join modules m on cm.moduleid = m.id; |
|  |
| 1. Display the student detail who are ‘BE’ graduate. |
| select \* from student s inner join student\_phone sp on s.id=sp.studentid inner join student\_address sa on sp.studentid = sa.studentid inner join student\_qualifications sq on sa.studentid=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 \* from course c inner join course\_modules cm on c.id=cm.courseid inner join modules m on cm.moduleid = m.id; |
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| 1. Display studentID who have more than 2 phone numbers. |
| select s.id,count(sp.number) 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 course c inner join course\_modules cm on c.id = cm.courseid inner join modules m on cm.moduleid = m.id having m.name="java1"; |
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| 1. Display all student who have taken admission in 6 months course. |
| SELECT \* 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 HAVING C.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.NAMEFIRST, GROUP\_CONCAT(SC.NAME ORDER BY SC.NAME) FROM STUDENT S INNER JOIN STUDENT\_CARDS SC ON S.ID = SC.STUDENTID GROUP BY S.ID;  OR  SELECT CONCAT(S.NAMEFIRST,',', group\_concat(SC.NAME ORDER BY SC.NAME)) result FROM STUDENT S INNER JOIN STUDENT\_CARDS SC ON S.ID = SC.STUDENTID GROUP BY S.ID ; |
|  |
| 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 ORDER BY 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.ID; |
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