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, namelast, address from student s inner join student\_address sa where s.id=sa.studentid ; |
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| 1. Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| select namefirst, namelast, emailid, name Degree, college, university, marks, year from student s inner join student\_qualifications sq where s.id=sq.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 s inner join student\_qualifications sq on s.id=sq.studentid and 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 distinct studentid, number PhoneNumber, name Degree, College, University, Marks, Year from student\_qualifications sq inner join student\_phone sp using(studentid) order by 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 Degree, College, University, Marks from student s inner join student\_qualifications sq on s.id=sq.studentid and name='BE' ; |
| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| select m.name ModuleName, m.duration Duration, cb.name BatchName from course\_batches cb inner join course\_modules cm inner join modules m where  cb.courseid = cm.courseid and cm.moduleid = m.id and cb.name = 'Batch1'; |
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| 1. Display student information along with his batch details who have joined in “Batch1”. |
| select s.id StudentID, Namefirst, Namelast, DOB, Emailid, cb.name BatchName from student s inner join course\_batches cb inner join batch\_student s bs where s.id = bs.studentid and bs.batchid = cb.id and cb.name = 'Batch1' ; |
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| 1. Display module names for “PG-DAC” course. |
| select c.name CourseName, m.name ModuleName from course\_modules cm inner join course c inner join modules m where c.id = cm.courseid and cm.moduleid = m.id and c.name = 'PG-DAC' ; |
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| 1. Display *namefirst, namelast, and batch name for all students*. |
| select Namefirst, Namelast, cb.name BatchName from student s inner join course\_batches cb inner join batch\_students bs on s.id = bs.studentid and bs.batchid = cb.id order by cb.id ; |
|  |
| 1. Display *(namefirst, namelast, phone number, and emailid)* whose student ID is 13. |
| select Namefirst, Namelast, number PhoneNumber, EmailID from student s inner join student\_phone sp on s.id = sp.studentid and studentid=13 ; |
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| 1. Display *(namefirst and count the total number of phones a student is having)* for all student. |
| select distinct Namefirst, count(number) NumberOfPhones from student s inner join student\_phone sp where s.id = sp.studentid group by studentid order by namefirst; |
|  |
| 1. Get student’s *(namefirst, namelast, DOB, address, name, college, university, marks, and year)*. |
| select Namefirst, Namelast, DOB, Address, name Degree, College, University, Marks, Year from student s inner join student\_address sa inner join student\_qualifications sq on s.id = sa.studentid = sq.studentid ; |
|  |
| 1. Get *(namefirst, namelast, emailID, phone number, and address)* whose faculty name is ‘ketan’. |
| select Namefirst, Namelast, EmailID, number PhoneNumber, Address from faculty f inner join faculty\_phone fp inner join faculty\_address fa on f.id = fp.facultyid and f.id = fa.facultyid and namefirst = 'ketan'; |
| 1. Get*(course name and batch name)*for all courses. |
| select c.name CourseName, cb.name BatchName from course c inner join course\_batches cb where c.id = cb.courseid ; |
|  |
| 1. Get all student details who have taken admission in ‘PG-DAC’ course. |
| select s.\*, c.name CourseName, cb.name BatchName from student s inner join batch\_students bs inner join course\_batches cb inner join course c where s.id = bs.studentid and bs.batchid = cb.id and cb.courseid = c.id and c.name = 'PG-DAC' order by s.id; |
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| 1. Get all course details which had started on ‘2016-02-01’. |
| select c.name CourseName, StartOn, Duration, summery Summary from course c inner join course\_batches cb on c.id = cb.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 c.name CourseName, m.name ModuleName from course c inner join course\_modules cm inner join modules m on c.id = cm.courseid and cm.moduleid = m.id and c.name = 'PG-DAC' ; |
|  |
| 1. Display how many modules are taught in each course. |
| select c.name CourseName, count(cm.courseid) NumberOfModules from course c inner join course\_modules cm where c.id = cm.courseid group by cm.courseid ; |
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| 1. Display the student detail who are ‘BE’ graduate. |
| select Namefirst, Namelast, DOB, EmailID, name Degree from student s inner join student\_qualifications sq on s.id = sq.studentid and sq.name = 'BE' ; |
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| 1. Display all distinct course detail, where module for every course is designed. |
| select c.name Course, group\_concat(m.name) Modules from modules m inner join course\_modules cm inner join course c on m.id = cm.moduleid and cm.courseid = c.id  group by c.name ; |
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| 1. Display studentID who have more than 2 phone numbers. |
| select StudentID from student\_phone group by studentid having count(studentid)>2 ; |
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| 1. Display the courses where ‘JAVA1’ is taught. |
| select m.name Module, group\_concat(c.name) Courses from modules m join course\_modules cm join course c where m.name='JAVA1' and m.id = cm.moduleid and cm.courseid = c.id ; |
|  |
| 1. Display all student who have taken admission in 6 months course. |
| select Namefirst, Namelast, c.name Course, c.duration 'Duration(Months)' from student s join batch\_students bs join course\_batches cb join course c on c.duration = 6 and c.id = cb.courseid and cb.id = bs.batchid and bs.studentid = s.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, group\_concat(sc.name) Cards from student s join student\_cards sc where s.id = sc.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 Namefirst, group\_concat(c.name) Courses from student s join batch\_students bs join course\_batches cb join course c where s.namefirst = 'ruhan' and s.id = bs.studentid and bs.batchid = cb.id and cb.courseid = c.id ; |
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