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, student\_address WHERE student.ID = student\_address.ID; |
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| 1. Display *(namefirst, namelast, emailID, and student\_qualification details)* from *student* and student\_*qualification* relations. |
| SELECT namefirst,namelast,emailID,college,university FROM student, student\_qualifications WHERE student.ID = student\_qualifications.ID; |
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| 1. Display *(namefirst, namelast, emailID, college, and university)* who have studied in 'Yale University'. *(Use student, and student\_qualification relation)* |
| 1. SELECT namefirst,namelast,emailID,college,university FROM student, student\_qualifications WHERE student.ID = student\_qualifications.ID AND university='Yale University'; 2. SELECT namefirst,namelast,emailID,college,university FROM student, student\_qualifications WHERE student.ID = student\_qualifications.ID HAVING 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, student\_qualifications,student\_phone WHERE student.ID = student\_qualifications.ID=student\_phone.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 JOIN student\_qualifications WHERE name='BE'AND student.ID = student\_qualifications.studentID; |
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| 1. Display the module name and the duration of the module for the batch “Batch1”. |
| SELECT m.name,m.duration,cb.ID FROM modules AS m,course\_batches AS cb,course\_modules AS cm WHERE m.ID = cm.moduleID AND cb.courseID = cm.courseID HAVING cb.ID=1; |
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| 1. Display student information along with his batch details who have joined in “Batch1”. |
| SELECT \* FROM student AS s,batch\_students AS bs WHERE s.ID=bs.studentID AND bs.batchID=1; |
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| 1. Display module names for “PG-DAC” course. |
| SELECT c.name, m.name FROM course AS c, course\_modules AS cm, modules AS m WHERE c.ID = cm.courseID AND cm.moduleID = m.ID HAVING c.name = "PG-DAC"; |
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| 1. Display *namefirst, namelast, and batch name for all students*. |
| SELECT s.namefirst, s.namelast, cb.name FROM student AS s, course\_batches AS cb, batch\_students AS bs WHERE s.ID = bs.studentID AND cb.ID = bs.batchID; |
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| 1. Display *(namefirst, namelast, phone number, and emailid)* whose student ID is 13. |
| SELECT s.namefirst, s.namelast, sp.number, s.emailID FROM student AS s, student\_phone AS sp WHERE sp.studentID = s.ID AND 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.namefirst, count(sp.studentID) FROM student AS s, student\_phone AS sp WHERE s.ID = sp.studentID GROUP BY sp.studentID; |
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| 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 AS s, student\_address AS sa, student\_qualifications AS sq WHERE 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 f.namefirst, f.namelast, f.emailID, fp.number, fa.address FROM faculty AS f, faculty\_phone AS fp, faculty\_address AS fa WHERE f.ID = fp.facultyID = fa.facultyID HAVING f.namefirst="Ketan"; |
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| 1. Get*(course name and batch name)*for all courses. |
| SELECT c.name "Course Name", cb.name "Batch Name" FROM course AS c, course\_batches AS cb WHERE c.ID = cb.courseID; |
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| 1. Get all student details who have taken admission in ‘PG-DAC’ course. |
| SELECT s.\*, c.name "Course Name" FROM student AS s, course AS c, batch\_students AS bs, course\_batches AS cb WHERE s.ID=bs.studentID AND bs.batchID=cb.ID AND cb.courseID=c.ID HAVING c.name="PG-DAC"; |
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| 1. Get all course details which had started on ‘2016-02-01’. |
| SELECT c.\* ,cb.starton "Started ON" FROM course AS c, course\_batches AS cb WHERE c.ID=cb.courseID HAVING 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 c.\*, m.name FROM modules AS m, course AS c, course\_modules AS cm WHERE c.ID=cm.courseID AND m.ID=cm.moduleID HAVING c.name="PG-DAC"; |
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| 1. Display how many modules are taught in each course. |
| SELECT c.name "Course Name", count(cm.moduleID) "No. of Modules" FROM course AS c, course\_modules AS cm WHERE c.ID = cm.courseID GROUP BY c.name; |
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| 1. Display the student detail who are ‘BE’ graduate. |
| SELECT s.namefirst, s.namelast, sq.name FROM student AS s, student\_qualifications AS sq WHERE s.ID=sq.studentID HAVING sq.name= |
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| 1. Display all distinct course detail, where module for every course is designed. |
| SELECT ROW\_NUMBER() OVER(ORDER BY s.namefirst) "I.No.", s.namefirst "First Name", s.namelast "Last Name", sq.name "Graduate Degree" FROM student AS s, student\_qualifications AS sq WHERE s.ID=sq.studentID HAVING sq.name="BE"; |
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| 1. Display studentID who have more than 2 phone numbers. |
| SELECT studentID, COUNT(number) FROM student\_phone GROUP BY studentID; |
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| 1. Display the courses where ‘JAVA1’ is taught. |
| SELECT c.name "Course Name", m.name "Module Name" FROM course AS c, modules AS m, course\_modules AS cm WHERE c.ID=cm.courseID AND m.ID=cm.moduleID HAVING m.name="JAVA1"; |
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| 1. Display all student who have taken admission in 6 months course. |
| SELECT s.namefirst, s.namelast, c.name "Course", c.duration FROM student AS s, course AS c, batch\_students AS bs, course\_batches AS cb WHERE s.ID=bs.studentID AND bs.batchID=cb.ID AND 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.* |
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| 1. Write a query to display the output in the following manner.   **'ruhan', 'DBDA, PG-DAC, Pre-DAC'** |
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