

Chandra's®



BLUE BOOK

1DA22CS409 "5th B"

Name Hegabali. S. mogalei

Class CSE "5th B"

Subject DBMS

School _____

1. Consider the following relation schema.

Project (P-no, P-name, P-Incharge)

Employee (E-no, E-name)

Assigned-to (P-no, E-no)

-- Create project table:-

CREATE TABLE Project

P-no INT PRIMARY KEY,

P-name VARCHAR(255),

P-Incharge VARCHAR(255)

;

CREATE TABLE Employee

E-no INT PRIMARY KEY,

E-name VARCHAR(255)

;

CREATE TABLE Assigned-to

P-no INT,

E-no INT,

PRIMARY KEY (P-no, E-no),

FOREIGN KEY (P-no) REFERENCES Project (P-no),

FOREIGN KEY (E-no) REFERENCES Employee (E-no)

;

project table:-

P-NO	P-NAME	P-Incharge
1	Project A	John Doe
2	Project B	Jane Smith
3	Project C	Bob Johnson
4	Project D	Tom

Employee table:-

E-NO	E-Name
101	Nicole Johnson
102	Charlotte Brown
103	David Miller
104	Tom

Assigned-to table:-

P-NO	E-NO
1	101
2	101
3	101
4	101
2	103
3	104

— Inserting values —

:Project:-

- * Insert into project (P-NO, P-NAME, P-INCHARGE)
values (1, 'Project A', 'John Doe');
- * Insert into project values (2, 'Project B', 'Jane Smith');
- * Insert into project values (3, 'Project C', 'Bob Johnson');
- * Insert into project values (4, 'Project D', 'Tom');

- * Insert into employee values (101, 'Nicole Johnson');
- * Insert into employee values (102, 'Charlotte Brown');
- * Insert into employee values (103, 'David Miller');
- * Insert into employee values (104, 'Tom');

- * Insert into assigned-to values (1, 101);
- * Insert into assigned-to values (2, 101);
- * Insert into assigned-to values (3, 101);
- * Insert into assigned-to values (4, 101);
- * Insert into assigned-to values (2, 103);
- * Insert into assigned-to values (3, 104);

7) List details of employees who are working on all the projects

SELECT E.*

FROM Employee E

WHERE NOT EXISTS

SELECT P-no

FROM Project

WHERE P-no NOT IN

SELECT P-no

FROM Assigned-to A

WHERE A.E-no = E.E-no

2) List E-no of employees who are not working on project number 26

SELECT E.E-no

FROM Employee E

WHERE E.E-no NOT IN

SELECT A.E-no
FROM Assigned-to A
WHERE A.P-no = 2000;

3) List the names of employees who are working in the same project as employee named 'Tom'.

SELECT E.E-name

FROM Employee E

JOIN Assigned-to A1 ON E.E-no = A1.E-no

JOIN Assigned-to A2 ON A1.P-no = A2.P-no

JOIN Employee Tom ON Tom.E.no = A2.E-no

WHERE Tom.E-name = 'Tom'

E-Name
Charlie Brown

v) List the names of employees who are not working in any project

```
SELECT E.E-Name  
FROM Employee E  
LEFT JOIN Assigned_to A ON E.E-No = A.E-No,  
WHERE A.P-No IS NULL;
```

Q] Consider the following schema

Sailors (Sid, Sname, Rating)

Boats (Bid, Bname, Color)

Reserves (Sid, Bid, Day)

- Create Sailor table

```
CREATE TABLE Sailors (  
Sid INT PRIMARY KEY,  
Sname VARCHAR(255),  
Rating INT,  
Age INT);
```

- Create Boats table

```
CREATE TABLE Boats (  
Bid INT PRIMARY KEY,  
Bname VARCHAR(255),  
Color VARCHAR(50))
```

Sailors-table

Sid	Sname	Rating	Age
1	John Doe	8	30
2	Jane Smith	6	25
3	Bob Johnson	7	28
4	Alice Williams	9	35

Boats-table

Bid	Bname	Color
101	Sailboat1	Blue
102	Rowboat1	Green
103	Canoe1	Red
104	Kayak1	Yellow

Create preserves table

CREATE TABLE preserves (

Sid INT,

Bid INT,

Day VARCHAR(10),

FOREIGN KEY (Sid) REFERENCES Sailors (Sid),

FOREIGN KEY (Bid) REFERENCES Boats (Bid),

PRIMARY KEY (Sid, Bid, Day)

);

— Inserting Values —

INSERT INTO Sailors (Sid, Sname, Rating, Age) values

(1, 'John Doe', 8, 30);

INSERT INTO Sailors values (2, 'Jane Smith', 6, 25);

INSERT INTO Sailors values (3, 'Bob Johnson', 7, 28);

INSERT INTO Sailors values (4, 'Alice Williams', 9, 35);

— Inserting values into Boat —

INSERT INTO Boats (Bid, Bname, Color) values

(101, 'Sailboat1', 'Blue');

INSERT INTO Boats values (102, 'Rowboat1', 'Green');

INSERT INTO Boats values (103, 'Canoe1', 'Red');

INSERT INTO Boats values (104, 'Kayak1', 'Yellow');

Reserves-table

Sid	Bid	Day
1	101	Monday
2	102	Tuesday
3	103	Wednesday
4	104	Thursday

Sname
Bob Johnson

Sname
Jane Smith

-- Insert - values into Reserves

INSERT INTO Reserves (Sid, Bid, Day) values

(1, 101, 'Monday');

INSERT INTO Reserves Values (2, 102, 'Tuesday');

INSERT INTO Reserves Values (3, 103, 'Wednesday');

INSERT INTO Reserves Values (4, 104, 'Thursday');

- 1) write the names of sailors who have reserved boat number 103.

```
SELECT S.Sname
FROM Sailors S
JOIN Reserves R ON S.Sid = R.Sid
WHERE R.Bid = 103;
```

- 2) Display names of sailors who have reserved green and red boat

```
SELECT DISTINCT S.Sname
FROM Sailors S
JOIN Reserves R ON S.Sid = R.Sid
JOIN Boats B ON R.Bid = B.Bid
WHERE B.Color IN ('Green', 'Red');
```

iij] Display the name of Sailor and boat
reserved on Thursday.

SELECT S.sname AS SailorName, B.Bname AS BoatName
FROM Sailors S
JOIN Reserves R ON S.sid = R.sid
JOIN Boats B ON R.bid = B.bid
WHERE R.Day = 'Thursday';

SailorName	BoatName
Alice Williams	Kayak