

31/10/2025

Employee database

- i. Using Scheme diagram, Create tables by properly specifying the primary keys and the foreign keys.
- ii. Enter greater than five tuples for each table.

The screenshot shows a MySQL Workbench interface with a query editor window. The code in the editor is as follows:

```
1 • CREATE DATABASE emp;
2 • USE emp;
3
4 • CREATE TABLE DEPT (
5     DEPTNO INT PRIMARY KEY,
6     DNAME VARCHAR(30),
7     DLOC VARCHAR(30)
8 );
9
10 • CREATE TABLE EMPLOYEE (
11     EMPNO INT PRIMARY KEY,
12     ENAME VARCHAR(30),
13     MGR_NO INT,
14     HIREDATE DATE,
15     SAL DECIMAL(10,2),
16     DEPTNO INT,
17     FOREIGN KEY (DEPTNO) REFERENCES DEPT(DEPTNO)
18 );
19
20 • CREATE TABLE PROJECT (
21     PNO INT PRIMARY KEY,
22     PNAME VARCHAR(30),
23     PLOC VARCHAR(30)
24 );
25
```

The code creates a database named 'emp', uses it, and then creates three tables: 'DEPT', 'EMPLOYEE', and 'PROJECT'. The 'DEPT' table has columns DEPTNO (primary key), DNAME, and DLOC. The 'EMPLOYEE' table has columns EMPNO (primary key), ENAME, MGR_NO, HIREDATE, SAL, and DEPTNO (foreign key referencing DEPT). The 'PROJECT' table has columns PNO (primary key), PNAME, and PLOC.

```
26 • CREATE TABLE ASSIGNED_TO (
27     EMPNO INT,
28     PNO INT,
29     JOB_ROLE VARCHAR(30),
30     PRIMARY KEY (EMPNO, PNO),
31     FOREIGN KEY (EMPNO) REFERENCES EMPLOYEE(EMPNO),
32     FOREIGN KEY (PNO) REFERENCES PROJECT(PNO)
33 );
34
35 • CREATE TABLE INCENTIVES (
36     EMPNO INT,
37     INCENTIVE_DATE DATE,
38     INCENTIVE_AMOUNT DECIMAL(10,2),
39     PRIMARY KEY (EMPNO, INCENTIVE_DATE),
40     FOREIGN KEY (EMPNO) REFERENCES EMPLOYEE(EMPNO)
41 );
42
43 • INSERT INTO DEPT VALUES
44     (1, 'IT', 'BENGALURU'),
45     (2, 'IY', 'MYSURU'),
46     (3, 'IPO', 'DELHI'),
47     (4, 'RTO', 'HYDERBAD'),
48     (5, 'NPO', 'MUMBAI');
49
50 • INSERT INTO EMPLOYEE VALUES
51     (111, 'RAM', NULL, '2020-07-13', 8000.00, 1),
52     (112, 'SHAM', 1001, '2020-07-13', 16000.00, 2),
```

```
53     (113, 'SAM', 1001, '2021-07-14', 10000.00, 2),
54     (114, 'VISHNU', 1002, '2023-07-14', 6000.00, 3),
55     (115, 'RAMAN', 1003, '2020-07-13', 16000.00, 4);
56
57 •   INSERT INTO PROJECT VALUES
58     (123, 'ALPHA', 'DELHI'),
59     (124, 'BETA', 'BENGALURU'),
60     (125, 'GAMA', 'MUMBAI'),
61     (126, 'SIGMA', 'MYSURU'),
62     (127, 'DELTA', 'HYDERBAD');
63
64 •   INSERT INTO ASSIGNED_TO VALUES
65     (111, 124, 'DATA ANALYST'),
66     (112, 125, 'MANAGER'),
67     (113, 126, 'RESEARCH'),
68     (114, 127, 'INTERN'),
69     (115, 123, 'MANAGER');
70
71 •   INSERT INTO INCENTIVES VALUES
72     (111, '2025-01-12', 1500.00),
73     (112, '2025-02-13', 1000.00),
74     (113, '2025-04-18', 800.00),
75     (115, '2025-04-18', 600.00);
76
77 •   SELECT A.EMPNO
78   FROM ASSIGNED_TO A
79   JOIN PROJECT P ON P.PNO = A.PNO
80   WHERE P.PLOC IN ('BENGALURU', 'MYSURU', 'HYDERBAD');
81
82 •   SELECT EMPNO
83   FROM EMPLOYEE
84   WHERE EMPNO NOT IN (SELECT EMPNO FROM INCENTIVES);
85
86 •   SELECT E.EMPNO, E.ENAME, A.JOB_ROLE, D.DNAME, D.DLOC, P.PLOC
87   FROM EMPLOYEE E
88   INNER JOIN DEPT D ON D.DEPTNO = E.DEPTNO
89   INNER JOIN ASSIGNED_TO A ON A.EMPNO = E.EMPNO
90   INNER JOIN PROJECT P ON P.PNO = A.PNO
91   WHERE D.DLOC = P.PLOC;
92
```

Queries:

- iii. Retrieve the employee numbers of all employees who work on project located in Bengaluru, Hyderabad, or Mysuru
- iv. Get Employee ID's of those employees who didn't receive incentives
- v. Write a SQL query to find the employees name, number, dept, job_role, department location and proje

Result Grid |

EMPNO
111
113
114

EMPNO
114

Result Grid | Filter Rows: _____ | Export: | Wrap Cell Content:

EMPNO	ENAME	JOB_ROLE	DNAME	DLOC	PLOC
111	RAM	DATA ANALYST	IT	BENGALURU	BENGALURU
113	SAM	RESEARCH	IY	MYSURU	MYSURU