

DBMS

Name: B Ruchitha

Week-4(30-10-25)

EMPLOYEE DATABASE

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left lists various databases, with 'employee_database' selected. The 'SQL File 1' tab is active, displaying the following SQL code:

```
1 create database Employee_Database;
2 use Employee_Database;
3
4 CREATE TABLE DEPT (
5   DEPTNO INT PRIMARY KEY,
6   DNAME VARCHAR(50),
7   DLOC VARCHAR(50)
8 );
9 desc DEPT;
```

The 'Result Grid' shows the output of the 'desc DEPT' command:

Field	Type	Null	Key	Default	Extra
DEPTNO	int	NO	PK		
DNAME	varchar(50)	YES			
DLOC	varchar(50)	YES			

The 'Output' pane at the bottom shows the execution log, including the 'use Employee_Database' command and the 'desc DEPT' command, both of which executed successfully.

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left lists various databases, with 'employee_database' selected. The 'SQL File 1' tab is active, displaying the following SQL code:

```
10
11 CREATE TABLE EMPLOYEE (
12   EMPNO INT PRIMARY KEY,
13   ENAME VARCHAR(50),
14   MGR_NO INT,
15   HIREDATE DATE,
16   SAL DECIMAL(10,2),
17   DEPTNO INT,
18   FOREIGN KEY (DEPTNO) REFERENCES DEPT(DEPTNO)
19 );
20 desc EMPLOYEE;
```

The 'Result Grid' shows the output of the 'desc EMPLOYEE' command:

Field	Type	Null	Key	Default	Extra
EMPNO	int	NO	PK		
ENAME	varchar(50)	YES			
MGR_NO	int	YES			
HIREDATE	date	YES			
SAL	decimal(10,2)	YES			
DEPTNO	int	YES	FK		

The 'Output' pane at the bottom shows the execution log, including the 'desc EMPLOYEE' command, which executed successfully.

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

- accident
- alash
- alash12
- alash123
- cars
- employee
- employee_database
- insurance
- newdatabase
- salis
- sqlalash123
- supplier
- sys
- world

Administration Schemas

Information

No object selected

Employee_Database SQL File 1 Insurance_Database

Limit to 1000 rows

```

16  SAL DECIMAL(10,2),
17  DEPTNO INT,
18  FOREIGN KEY (DEPTNO) REFERENCES DEPT(DEPTNO)
19  })
20  desc EMPLOYEE;
21
22  CREATE TABLE PROJECT (
23  PNO INT PRIMARY KEY,
24  PLOC VARCHAR(50),
25  PNAME VARCHAR(50)
26  );
27  desc PROJECT;
28

```

Result Grid

Field	Type	Null	Key	Default	Extra
PNO	int	NO	PR		
PLOC	varchar(50)	YES			
PNAME	varchar(50)	YES			

Result 1

Output

Action Output

#	Time	Action	Message	Duration / Fetch
72	08:51:02	SELECT E.EMPNO FROM EMPLOYEE E WHERE E.EMPNO NOT IN (SELECT EMPNO FROM INCENTIVES) LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
73	08:51:30	SELECT E.ENAME, E.EMPNO, D.DNAME, A.JOB_ROLE, D.DLOC AS DEPT_LOCATION, P.PLOC AS PROJECT_LOCATION FROM EMPLOYEE E	6 row(s) returned	0.000 sec / 0.000 sec
74	08:56:24	desc DEPT	3 row(s) returned	0.000 sec / 0.000 sec
75	08:57:08	desc EMPLOYEE	6 row(s) returned	0.000 sec / 0.000 sec
76	08:57:46	desc PROJECT	3 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

SQL-Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator

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- world

Administration Schemas

Information

No object selected

Employee_Database SQL File 1 Insurance_Database

Limit to 1000 rows

```

28
29  CREATE TABLE ASSIGNED_TO (
30  EMPNO INT,
31  PNO INT,
32  JOB_ROLE VARCHAR(50),
33  PRIMARY KEY (EMPNO, PNO),
34  FOREIGN KEY (EMPNO) REFERENCES EMPLOYEE(EMPNO),
35  FOREIGN KEY (PNO) REFERENCES PROJECT(PNO)
36  );
37  desc ASSIGNED_TO;
38
39  CREATE TABLE INCENTIVES (
40  EMPNO INT,

```

Result Grid

Field	Type	Null	Key	Default	Extra
EMPNO	int	NO	PR		
PNO	int	NO	PR		
JOB_ROLE	varchar(50)	YES			

Result 10

Output

Action Output

#	Time	Action	Message	Duration / Fetch
73	08:51:30	SELECT E.ENAME, E.EMPNO, D.DNAME, A.JOB_ROLE, D.DLOC AS DEPT_LOCATION, P.PLOC AS PROJECT_LOCATION FROM EMPLOYEE E	6 row(s) returned	0.000 sec / 0.000 sec
74	08:56:24	desc DEPT	3 row(s) returned	0.000 sec / 0.000 sec
75	08:57:08	desc EMPLOYEE	6 row(s) returned	0.000 sec / 0.000 sec
76	08:57:46	desc PROJECT	3 row(s) returned	0.016 sec / 0.000 sec
77	09:00:03	desc ASSIGNED_TO	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

SQL-Additions

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MySQL Workbench

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Administration Schemas

Information

No object selected

Employee_Database SQL File 1 Insurance_Database

Limit to 1000 rows

```

37 desc ASSIGNED_TO;
38
39 CREATE TABLE INCENTIVES (
40 EMPNO INT,
41 INCENTIVE_DATE DATE,
42 INCENTIVE_AMOUNT DECIMAL(10,2),
43 FOREIGN KEY (EMPNO) REFERENCES EMPLOYEE(EMPNO)
44 );
45 DESC INCENTIVES;
46
47
48 -- DEPT
49
50 TRUNCATE TABLE INCENTIVES;

```

Result Grid

Field	Type	Null	Key	Default	Extra
EMPNO	int	YES	MLA		
INCENTIVE_DATE	date	YES			
INCENTIVE_AMOUNT	decimal(10,2)	YES			

Result 11

Output

Action Output

#	Time	Action	Message	Duration / Fetch
74	08:56:24	desc DEPT	3 row(s) returned	0.000 sec / 0.000 sec
75	08:57:08	desc EMPLOYEE	6 row(s) returned	0.000 sec / 0.000 sec
76	08:57:46	desc PROJECT	0.016 sec / 0.000 sec	
77	09:00:03	desc ASSIGNED_TO	3 row(s) returned	0.000 sec / 0.000 sec
78	09:00:37	DESC INCENTIVES	3 row(s) returned	0.000 sec / 0.000 sec

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Administration Schemas

Information

No object selected

Employee_Database SQL File 1 Insurance_Database

Limit to 1000 rows

```

46
47
48 -- DEPT
49
50 INSERT INTO DEPT VALUES
51 (10, 'IT', 'Bengaluru'),
52 (20, 'HR', 'Hyderabad'),
53 (30, 'Finance', 'Mysuru'),
54 (40, 'Marketing', 'Chennai'),
55 (50, 'Sales', 'Pune');
56
57 SELECT * FROM DEPT;
58
59 -- FINI / NFFF

```

Result Grid

DEPTNO	DNAME	LOC
10	IT	Bengaluru
20	HR	Hyderabad
30	Finance	Mysuru
40	Marketing	Chennai
50	Sales	Pune

Result 12

Output

Action Output

#	Time	Action	Message	Duration / Fetch
75	08:57:08	desc EMPLOYEE	6 row(s) returned	0.000 sec / 0.000 sec
76	08:57:46	desc PROJECT	3 row(s) returned	0.016 sec / 0.000 sec
77	09:00:03	desc ASSIGNED_TO	3 row(s) returned	0.000 sec / 0.000 sec
78	09:00:37	DESC INCENTIVES	3 row(s) returned	0.000 sec / 0.000 sec
79	09:01:07	SELECT * FROM DEPT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

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Administration Schemas

Information

No object selected

Employee_Database SQL File 1 Insurance_Database

Limit to 1000 rows

```

58 -- EMPLOYEE
59 -- INSERT INTO EMPLOYEE VALUES
60 ((881, 'Ravi', 'MILL', '2018-05-18', 60000, 10)),
61 ((882, 'Anita', 101, '2019-01-15', 50000, 20)),
62 ((883, 'Kiran', 101, '2020-01-22', 50000, 30)),
63 ((884, 'Neena', 102, '2018-07-25', 65000, 40)),
64 ((885, 'Suresh', 103, '2022-02-14', 40000, 10)),
65 ((886, 'Priya', 103, '2023-06-18', 52000, 20));
66
67 -- SELECT FROM EMPLOYEE
68
69 -- PROJECT
70 -- INSERT INTO PROJECT VALUES

```

Result Grid

EMPNO	ENAME	MGR_NO	HIREDATE	SAL	DEPTNO
101	Ravi	0000	2020-05-10	60000.00	10
102	Anita	101	2019-01-15	50000.00	20
103	Kiran	101	2021-01-12	50000.00	30
104	Meena	102	2018-07-25	65000.00	40
105	Suresh	103	2022-02-14	40000.00	10
106	Priya	103	2023-06-18	52000.00	20

Output

Action Output

#	Time	Action	Message	Duration / Fetch
76	08:57:46	desc PROJECT	3 row(s) returned	0.016 sec / 0.000 sec
77	09:00:03	desc ASSIGNED_TO	3 row(s) returned	0.000 sec / 0.000 sec
78	09:00:37	DESC INCENTIVES	3 row(s) returned	0.000 sec / 0.000 sec
79	09:01:07	SELECT FROM DEPT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
80	09:02:09	SELECT FROM EMPLOYEE LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

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MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator

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Administration Schemas

Information

No object selected

Employee_Database SQL File 1 Insurance_Database

Limit to 1000 rows

```

67 -- SELECT FROM EMPLOYEE
68
69 -- PROJECT
70 -- INSERT INTO PROJECT VALUES
71 ((1, 'Bengaluru', 'SmartApp'),
72 ((2, 'Hyderabad', 'DataSecure'),
73 ((3, 'Mysuru', 'PaySys'),
74 ((4, 'Pune', 'AdBoost'),
75 ((5, 'Chennai', 'CloudNet'));
76
77 -- SELECT FROM PROJECT
78
79 -- ASSIGNED TO

```

Result Grid

PNO	PLOC	PNAME
1	Bengaluru	SmartApp
2	Hyderabad	DataSecure
3	Mysuru	PaySys
4	Pune	AdBoost
5	Chennai	CloudNet

Output

Action Output

#	Time	Action	Message	Duration / Fetch
77	09:00:03	desc ASSIGNED_TO	3 row(s) returned	0.000 sec / 0.000 sec
78	09:00:37	DESC INCENTIVES	3 row(s) returned	0.000 sec / 0.000 sec
79	09:01:07	SELECT FROM DEPT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
80	09:02:09	SELECT FROM EMPLOYEE LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
81	09:03:05	SELECT FROM PROJECT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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Information

No object selected

SQL File 1 Insurance_Database

Limit to 1000 rows

```

77
78
79
80 * -- ASSIGNED_TO VALUES
81 * INSERT INTO ASSIGNED_TO VALUES
82 * (181, 2, 'Manager'),
83 * (182, 2, 'HR Specialist'),
84 * (183, 2, 'Analyst'),
85 * (184, 2, 'Marketing Lead'),
86 * (185, 2, 'Developer'),
87 * (186, 2, 'Coordinator');
88
89
90
91
92
93
94
95
96
97
98
99

```

Result Grid

EMPNO	PHO	JOB_ROLE
101	1	Manager
102	2	HR Specialist
103	3	Analyst
104	5	Marketing Lead
105	1	Developer
106	2	Coordinator

ASSIGNED_TO 15 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
78	09:00:37	DESC INCENTIVES	3 row(s) returned	0.000 sec / 0.000 sec
79	09:01:07	SELECT FROM DEPT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
80	09:02:09	SELECT FROM EMPLOYEE LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
81	09:03:05	SELECT FROM PROJECT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
82	09:03:54	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

SQL Additions

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MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

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- salis
- sqlalash123
- supplier
- sys
- world

Information

No object selected

SQL File 1 Insurance_Database

Limit to 1000 rows

```

86 * (186, 2, 'Coordinator');
87 * SELECT FROM ASSIGNED_TO;
88
89
90
91 * -- INCENTIVES VALUES
92 * INSERT INTO INCENTIVES VALUES
93 * (181, '2024-01-01', 5000),
94 * (182, '2024-01-01', 5000),
95 * (183, '2024-01-01', 5000);
96
97
98
99

```

Result Grid

EMPNO	PHO	JOB_ROLE
101	1	Manager
102	2	HR Specialist
103	3	Analyst
104	5	Marketing Lead
105	1	Developer
106	2	Coordinator

ASSIGNED_TO 16 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
79	09:01:07	SELECT FROM DEPT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
80	09:02:09	SELECT FROM EMPLOYEE LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
81	09:03:05	SELECT FROM PROJECT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
82	09:03:54	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
83	09:04:25	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

QUERIES

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'Schemas' tree with 'employee_database' selected. The main editor shows a query in the 'SQL File 1' tab:

```
SELECT * FROM ASSIGNED_TO;

/*Retrieve Employee Numbers of All Employees Working on Projects Located in Bengaluru, Hyderabad, or Mysuru*/
SELECT DISTINCT A.EMPNO
FROM ASSIGNED_TO A
JOIN PROJECT P ON A.PNO = P.PNO
WHERE P.PLOC IN ('Bengaluru', 'Hyderabad', 'Mysuru');
```

The 'Result Grid' shows 17 rows of data. The 'Output' pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
80	09:02:09	SELECT FROM EMPLOYEE LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
81	09:03:05	SELECT FROM PROJECT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
82	09:03:54	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
83	09:04:25	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
84	09:04:47	SELECT DISTINCT A.EMPNO FROM ASSIGNED_TO A JOIN PROJECT P ON A.PNO = P.PNO WHERE P.PLOC IN ('Bengaluru', 'Hyderabad', 'Mysuru')	5 row(s) returned	0.000 sec / 0.000 sec

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'Schemas' tree with 'employee_database' selected. The main editor shows a query in the 'SQL File 1' tab:

```
JOIN PROJECT P ON A.PNO = P.PNO
WHERE P.PLOC IN ('Bengaluru', 'Hyderabad', 'Mysuru');

/*Get Employee IDs of Those Employees who Didn't Receive Incentives*/
SELECT E.EMPNO
FROM EMPLOYEE E
WHERE E.EMPNO NOT IN (SELECT EMPNO FROM INCENTIVES);

/*Find Employee Name, Number, Dept, Job Role, Department Location, and Project Location for Employees Working in Projects Located Same as Their Department Location*/
SELECT P.PNAME, P.PPNO, D.DNAME, A.AJOB, A.DPT, D.DLOC, P.PLOC, A.APNO, P.PLOC
```

The 'Result Grid' shows 18 rows of data. The 'Output' pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
81	09:03:05	SELECT FROM PROJECT LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
82	09:03:54	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
83	09:04:25	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
84	09:04:47	SELECT DISTINCT A.EMPNO FROM ASSIGNED_TO A JOIN PROJECT P ON A.PNO = P.PNO WHERE P.PLOC IN ('Bengaluru', 'Hyderabad', 'Mysuru')	5 row(s) returned	0.000 sec / 0.000 sec
85	09:05:40	SELECT E.EMPNO FROM EMPLOYEE E WHERE E.EMPNO NOT IN (SELECT EMPNO FROM INCENTIVES) LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Ruchita x

File Edit View Query Database Server Tools Scripting Help

Navigator Employee_Database SQL File 1 Insurance_Database

SCHMAS

Filter objects

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- sys
- world

Information

No object selected

Result Grid

ENAME	EMPNO	DNAME	JOB_ROLE	DEPT_LOCATION	PROJECT_LOCATION
Ravi	101	IT	Manager	Bengaluru	Bengaluru
Suresh	105	IT	Developer	Bengaluru	Bengaluru
Anita	102	HR	HR Specialist	Hyderabad	Hyderabad
Prith	106	HR	Coordinator	Hyderabad	Hyderabad
Akran	103	Finance	Analyst	Mysuru	Mysuru
Meena	104	Marketing	Marketing Lead	Chennai	Chennai

Result 19 x

Read Only Context Help Snippets

Output

#	Time	Action	Message	Duration / Fech
82	09:03:54	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
83	09:04:25	SELECT FROM ASSIGNED_TO LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
84	09:04:47	SELECT DISTINCT A.EMPNO FROM ASSIGNED_TO A JOIN PROJECT P ON A.PNO = P.PNO WHERE P.PLOC IN ('Bengaluru', 'Hyderabad', 'Mysur...	5 row(s) returned	0.000 sec / 0.000 sec
85	09:05:40	SELECT E.EMPNO FROM EMPLOYEE E WHERE E.EMPNO NOT IN (SELECT EMPNO FROM INCENTIVES) LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
86	09:06:28	SELECT E.ENAME, E.EMPNO, D.DNAME, A.JOB_ROLE, D.DLOC AS DEPT_LOCATION, P.PLOC AS PROJECT_LOCATION FROM EMPLOYEE E ...	6 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

SQL-Additions

Automatic context help is disabled. Use the toolbar button to manually get help for the current caret position or to toggle automatic help.

Result Grid

Form Editor

Field Types

Query Stats

Execution Plan