

SQL for Practical Records Using MySQL

01. Create the following relations DEPT and EMP.
On the basis of the two tables write SQL commands and their outputs:
Use appropriate table name from the list of tables.

Relation : DEPT

<u>Deptno</u>	<u>Dname</u>	<u>Loc</u>
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON

Relation : EMP

<u>Empno</u>	<u>Empname</u>	<u>Job</u>	<u>Mgr</u>	<u>Hiredate</u>	<u>Sal</u>	<u>Comm</u>	<u>DeptNo</u>
7839	KING	PRESIDENT		17-NOV-81	5000		10
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	1500		10
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7654	MARATIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7902	FORD	ANALYST	7566	03-DEC-81	3000		NULL
7369	SMITH	CLERK	7902	17-DEC-80	800		NULL
7788	SCOT	ANALYST	7566	09-DEC-82	3000		20
7876	ADAM	CLERK	7788	12-JAN-83	1500		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		NULL

- a) Find out who earns the least.
- b) Which positions are paid higher than the average salary ?
- c) Give the details of those departments that do not have any employee.
- d) Find the location of the employee named CLARK.
- e) Show the details of those employees who have salaries equal to any employee of the department 30.

02. Create the following relations **EMPLOYEES** and **EMPSALARY**.
 On the basis of these two tables write SQL commands for (i) to (iv) and write the outputs for the bits (v) and (vi)
 Use appropriate table name from the list of tables.

EMPLOYEES

EMPID	FIRSTNAME	LASTNAME	ADDRESS	CITY
010	George	Smith	83 First Street	Howard
105	Mary	Jones	842 Vine Ave	Losantiville
152	Sam	Tones	33 ELM St.	Paris
215	Sarah	Ackerman	440 U.S. 110	Upton
244	Manila	Sengupta	24 Friends Street	New Delhi
300	Robert	Samuel	9 Fifth Cross	Washington
335	Henry	Williams	12 Moore Street	Boston
400	Rachel	Lee	121 Harrison St	New York
441	Peter	Thompson	11 Red Road	Paris

EMPSALARY

EMPID	SALARY	BENEFITS	DESIGNATION
010	75000	15000	Manager
105	65000	15000	Manager
152	80000	25000	Director
215	75000	12500	Manager
244	50000	12000	Clerk
300	45000	10000	Clerk
335	40000	10000	Clerk
400	32000	7500	Salesman
441	28000	7500	Salesman

- i) To display the details of those employees living in Paris from tables **EMPLOYEES** and **EMPSALARY**.
- ii) To display the total earnings (Salary + Benefits) in descending order from the table **EMPSALARY**.
- iii) To display the minimum salary among managers from the table **EMPSALARY**.
- iv) To display the employee details from the table **EMPLOYEES** who are from New Delhi.

03. Create the following relations TEACHER, DEPT and STUDENT.
 On the basis of the these three tables, write SQL commands for (i) to (iv) and write the outputs for the bits (v) and (vi)
 Use appropriate table name from the list of tables.

DEPT

DEPTNO	DEPTNAME
D01	Computer Science
D02	Biology
D03	Humanities
D04	Economics
D05	Information Technology

TEACHER

NAME	SALARY	DEPTNO	DATEOFJOIN
Jugal Mittal	12000	D02	03-JUL-1999
Sharmila Kaur	20000	D01	06-JUN-2000
V.B. Haldhar	19000	D05	06-JAN-1997
Ramesh Kumar	13000	D03	22-APR-2001
Shiv Om	16000	D04	17-NOV-1998
Priya Saluja	15500	D01	29-OCT-1996
Jagjit Singh	8900	D03	21-MAY-2003
Shyam Arora	12700	D03	13-SEP-2001

STUDENT

NAME	EXTRAOPT
Param	Economics
Gaurav	Compute Science
Sundar	Humanities
Raghav	Biology
Reena	IT
Joseph	Economics
Raj	IT

- i) Name the teacher(s) belonging to the IT department along with those student(s) who have opted IT an extra optional.
- ii) Name the teacher who has joined latest.
- iii) Name the department having maximum number of teacher(s).
- iv) List the details of highest paid teacher.

04. Create the following relations DEPT and EMP.
On the basis of these two tables, write SQL commands for (i) to (iv) and write the outputs for the bits (v) and (vi)

Use appropriate table name from the list of tables.

DEPT

DEPTNO	DNAME	LOC
10	ACCOUNTING	NEW YORK
20	RESEARCH	DALLAS
30	SALES	CHICAGO
40	OPERATIONS	BOSTON

EMP

EMPNO	EMPNAME	JOB	MGR	JOININGDATE	SAL	COMM	DEPTNO
7839	KUNAL	President		17-Nov-79	15000		10
7698	BABUL	Manager	7839	01-May-81	8000		30
7782	CHINTA	Manager	7839	09-Jun-81	7000		10
7566	JOHN	Manager	7839	02-Apr-81	5500		20
7654	MARTIN	Salesman	7698	28-Sep-81	2250	1400	30
7499	ASHOK	Salesman	7698	20-Feb-81	1600	300	30
7844	TUSHAR	Salesman	7698	06-Dec-79	8850	7050	30
7900	JAMES	Clerk	7698	03-Dec-81	1900		30
7521	WARA	Salesman	7698	22-Feb-81	1250	500	30
7902	FAKIR	Analyst	7566	03-Dec-80	6000		NULL
7369	SONAM	Clerk	7902	17-Dec-80	5000		NULL
7788	SUSANT	Analyst	7566	09-Dec-82	3000		20
7876	AMIR	Clerk	7788	12-Jan-83	4450		20
7934	MILLER	Clerk	7782	23-Jan-82	5500		NULL

- i) To find the location of the employee TUSHAR.
- ii) To display details like department number, department name, employee number, employee name, job and salary. And order the rows by employee number with department number.
- iii) Show the details of those employees that have salary equal to any employee's salary of department number 30.
- iv) Display the positions which are paid higher than average salary.

05. Create the following relations DOCTOR and SALARY.
On the basis of these two tables, write SQL commands for (i) to (iv) and write the outputs for the bits (v) and (vi)

Use appropriate table name from the list of tables.

DOCTOR

ID	NAME	DEPT	SEX	EXPERIENCE
101	John	ENT	M	12
104	Smith	ORTHOPEDIC	M	5
107	George	CARDIOLOGY	M	10
114	Lara	SKIN	F	3
109	K George	MEDICINE	F	9
105	Johnson	ORTHOPEDIC	M	10
117	Lucy	ENT	F	3
111	Bill	MEDICINE	F	12
130	Morphy	ORTHOPEDIC	M	15

SALARY

ID	BASIC	ALLOWANCE	CONSULTATION
101	12000	1000	300
104	23000	2300	500
107	32000	4000	500
114	12000	5200	100
109	42000	1700	200
105	18900	1690	300
130	21700	2600	300

- i) Display name of all medicine specialists having more than 10 years of experience from the table DOCTOR.
- ii) Display the average salary of all doctors working in ENT department using the tables DOCTOR and SALARY. Salary = BASIC + ALLOWANCE
- iii) Display the minimum allowance of female doctors.
- iv) Display the name of male doctors having highest consultation fee.