**Database Assignment 1**

**Q1 – To list all records with sal > 2000 and comm>200**

**Ans –**

mysql> select\*

-> from emp

-> where sal>2000 and comm>200;

Empty set (0.00 sec)

**Q2 – To list all record with job=’Clerk’ or sal>2000**

**Ans –**

mysql> select\*

-> from emp

-> where job ='clerk' or sal>2000;

+-------+--------+-----------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-----------+------+------------+---------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-----------+------+------------+---------+------+--------+

10 rows in set (0.00 sec)

**Q3 – To list all the record with sal=1250 or 1100 or 2850**

**Ans –**

mysql> select\*

-> from emp

-> where sal=1250 or sal=1100 or sal=2850;

+-------+--------+----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+---------+--------+

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

+-------+--------+----------+------+------------+---------+---------+--------+

4 rows in set (0.00 sec)

**Q4 - To list all employees with sal>1250 and**

**Ans -**

mysql> select\*

-> from emp

-> where sal>1250 and sal<2850;

+-------+--------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+--------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+----------+------+------------+---------+--------+--------+

4 rows in set (0.00 sec)

**Q5 – To list all employees with name ends with AS**

**Ans –**

select\*

-> from emp

-> where ename like '%AS';

Empty set (0.00 sec)

**Q6 - To list all employees with job starts with C and ends with K**

**Ans -**

mysql> select\*

-> from emp

-> where job like 'C%K';

+-------+--------+-------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-------+------+------------+---------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-------+------+------------+---------+------+--------+

4 rows in set (0.00 sec)

**Q7 –To list all employees with job contains L at third position and M at third last position**

**Ans –**

mysql> select\*

-> from emp

-> where job like '\_\_L%M\_\_';

+-------+--------+----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+---------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

+-------+--------+----------+------+------------+---------+---------+--------+

4 rows in set (0.00 sec)

**Q8 - To list all the record with sal not equal to 1250 or 1100 or 2850**

**Ans –**

mysql> select\*

-> from emp

-> where sal!=1250 or sal!=1100 or sal!=2850;

+-------+--------+-----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-----------+------+------------+---------+---------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-----------+------+------------+---------+---------+--------+

14 rows in set (0.00 sec)

**Q9 – To list all employees with salnot >1250 and**

**Ans –**

mysql> select\*

-> from emp

-> where sal!=1250 and sal!=2850;

+-------+--------+-----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-----------+------+------------+---------+--------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-----------+------+------------+---------+--------+--------+

11 rows in set (0.00 sec)

**Q 10 –To list all employees with job starts with C , E at 3rd position and ends with K**

**Ans –**

mysql> select\*

-> from emp

-> where job like 'C\_E%K';

+-------+--------+-------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-------+------+------------+---------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-------+------+------------+---------+------+--------+

4 rows in set (0.00 sec)

**Q11 – To list all rows with comm is null**

**Ans –**

mysql> select\*

-> from emp

-> where comm is null;

+-------+--------+-----------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-----------+------+------------+---------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-----------+------+------------+---------+------+--------+

10 rows in set (0.00 sec)

**Q12 – To list all employees with sal is null and name starts with ‘S’**

**Ans –**

mysql> select\*

-> from emp

-> where comm is null and ename like 'S%';

+-------+-------+---------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

+-------+-------+---------+------+------------+---------+------+--------+

2 rows in set (0.00 sec)

**Q13 – To list all employees with job contains 5 characters**

**Ans –**

mysql> select\*

-> from emp

-> where job like '\_\_\_\_\_';

+-------+--------+-------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-------+------+------------+---------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-------+------+------------+---------+------+--------+

4 rows in set (0.00 sec)

**Q14 – To list all employees with name contain ‘A’ at 1 position and job Contains 5 characters**

**Ans –**

mysql> select\*

-> from emp

-> where ename like 'A%' and job like '\_\_\_\_\_';

+-------+-------+-------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+-------+------+------------+---------+------+--------+

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

+-------+-------+-------+------+------------+---------+------+--------+

1 row in set (0.00 sec)

**Q2. Solve the following**

**Q1 – Retrieve the details (Name, Salary and dept no) of the emp who are working in department code 20, 30 and 40.**

**Ans –**

mysql> select ename , sal , deptno

-> from emp

-> where deptno regexp '[203040]';

+--------+---------+--------+

| ename | sal | deptno |

+--------+---------+--------+

| SMITH | 800.00 | 20 |

| ALLEN | 1600.00 | 30 |

| WARD | 1250.00 | 30 |

| JONES | 2975.00 | 20 |

| MARTIN | 1250.00 | 30 |

| BLAKE | 2850.00 | 30 |

| CLARK | 2450.00 | 10 |

| SCOTT | 3000.00 | 20 |

| KING | 5000.00 | 10 |

| TURNER | 1500.00 | 30 |

| ADAMS | 1100.00 | 20 |

| JAMES | 950.00 | 30 |

| FORD | 3000.00 | 20 |

| MILLER | 1300.00 | 10 |

+--------+---------+--------+

14 rows in set (0.04 sec)

**Q2 - Display the total salary of all employees . Total salary will be calculated as sal+comm+sal\*0.10**

**Ans -**

mysql> select ename , sal, format(sal+ifnull(comm,0)+sal\*0.10,2) net\_salary

-> from emp;

+--------+---------+------------+

| ename | sal | net\_salary |

+--------+---------+------------+

| SMITH | 800.00 | 880.00 |

| ALLEN | 1600.00 | 2,060.00 |

| WARD | 1250.00 | 1,875.00 |

| JONES | 2975.00 | 3,272.50 |

| MARTIN | 1250.00 | 2,775.00 |

| BLAKE | 2850.00 | 3,135.00 |

| CLARK | 2450.00 | 2,695.00 |

| SCOTT | 3000.00 | 3,300.00 |

| KING | 5000.00 | 5,500.00 |

| TURNER | 1500.00 | 1,650.00 |

| ADAMS | 1100.00 | 1,210.00 |

| JAMES | 950.00 | 1,045.00 |

| FORD | 3000.00 | 3,300.00 |

| MILLER | 1300.00 | 1,430.00 |

+--------+---------+------------+

14 rows in set (0.01 sec)

**Q3 - List the Name and job of the emp who have joined before 1 jan 1986 and whose salary range is between 1200and 2500. Display the columns with user defined Column headers.**

**Ans –**

mysql> select\*

-> from emp

-> where hiredate<='1986-01-01' and sal between 1201 and 2499;

+-------+--------+----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+---------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+----------+------+------------+---------+---------+--------+

6 rows in set (0.00 sec)

**Q4 - List the empno, name, and department number of the emp works under manager with id 7698**

**Ans –**

mysql> select empno , ename , deptno , mgr

-> from emp

-> where mgr=7698;

+-------+--------+--------+------+

| empno | ename | deptno | mgr |

+-------+--------+--------+------+

| 7499 | ALLEN | 30 | 7698 |

| 7521 | WARD | 30 | 7698 |

| 7654 | MARTIN | 30 | 7698 |

| 7844 | TURNER | 30 | 7698 |

| 7900 | JAMES | 30 | 7698 |

+-------+--------+--------+------+

5 rows in set (0.00 sec)

**Q5 - List the name, job, and salary of the emp who are working in departments 10 and 30.**

**Ans –**

mysql> select ename , sal ,deptno, job

-> from emp

-> where deptno in(10,20);

+--------+---------+--------+-----------+

| ename | sal | deptno | job |

+--------+---------+--------+-----------+

| SMITH | 800.00 | 20 | CLERK |

| JONES | 2975.00 | 20 | MANAGER |

| CLARK | 2450.00 | 10 | MANAGER |

| SCOTT | 3000.00 | 20 | ANALYST |

| KING | 5000.00 | 10 | PRESIDENT |

| ADAMS | 1100.00 | 20 | CLERK |

| FORD | 3000.00 | 20 | ANALYST |

| MILLER | 1300.00 | 10 | CLERK |

+--------+---------+--------+-----------+

8 rows in set (0.00 sec)

**Q6 - Display name concatenated with dept code separated by comma and space. Name the column as ‘Emp info’**

**Ans -**

mysql> select ename, deptno, concat(ename,", ",deptno) Emp\_info

-> from emp;

+--------+--------+------------+

| ename | deptno | Emp\_info |

+--------+--------+------------+

| SMITH | 20 | SMITH, 20 |

| ALLEN | 30 | ALLEN, 30 |

| WARD | 30 | WARD, 30 |

| JONES | 20 | JONES, 20 |

| MARTIN | 30 | MARTIN, 30 |

| BLAKE | 30 | BLAKE, 30 |

| CLARK | 10 | CLARK, 10 |

| SCOTT | 20 | SCOTT, 20 |

| KING | 10 | KING, 10 |

| TURNER | 30 | TURNER, 30 |

| ADAMS | 20 | ADAMS, 20 |

| JAMES | 30 | JAMES, 30 |

| FORD | 20 | FORD, 20 |

| MILLER | 10 | MILLER, 10 |

+--------+--------+------------+

14 rows in set (0.01 sec)

**Q7 - Display the emp details who do not have manager.**

**Ans –**

mysql> select\*

-> from emp

-> where mgr is null;

+-------+-------+-----------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+-----------+------+------------+---------+------+--------+

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

+-------+-------+-----------+------+------------+---------+------+--------+

1 row in set (0.00 sec)

**Q8 - Write a query which will display name, department no and date of joining of all employee who were joined January 1, 1981 and March 31, 1983. Sort it based on date of joining (ascending).**

**Ans –**

mysql> select ename, deptno, hiredate

-> from emp

-> where hiredate between '1981-01-01' and '1983-03-31'

-> order by hiredate;

+--------+--------+------------+

| ename | deptno | hiredate |

+--------+--------+------------+

| ALLEN | 30 | 1981-02-20 |

| WARD | 30 | 1981-02-22 |

| JONES | 20 | 1981-04-02 |

| BLAKE | 30 | 1981-05-01 |

| CLARK | 10 | 1981-06-09 |

| TURNER | 30 | 1981-09-08 |

| MARTIN | 30 | 1981-09-28 |

| KING | 10 | 1981-11-17 |

| JAMES | 30 | 1981-12-03 |

| FORD | 20 | 1981-12-03 |

| MILLER | 10 | 1982-01-23 |

| SCOTT | 20 | 1982-12-09 |

| ADAMS | 20 | 1983-01-12 |

+--------+--------+------------+

13 rows in set (0.00 sec)

**Q9 – Display the employee details where the job contains word ‘AGE’ anywhere in the Job**

**Ans –**

mysql> select\*

-> from emp

-> where job regexp 'age';

+-------+-------+---------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------+--------+

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

+-------+-------+---------+------+------------+---------+------+--------+

3 rows in set (0.02 sec)

**Q11 – List the details of the employee , whose names start with ‘A’ and end with ‘S’ or whose names contains N as the second or third character, and ending with either ‘N’ or ‘S’.**

**Ans –**

mysql> select\*

-> from emp

-> where ename regexp '^a.\*s$|^..?n.\*[ns]';

+-------+-------+---------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------+--------+

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

+-------+-------+---------+------+------------+---------+------+--------+

2 rows in set (0.00 sec)

**Q12 - List the names of the emp having ‘\_’ character in their name.**

**Ans –**

mysql> select\*

-> from emp

-> where ename regexp '\_';

Empty set (0.00 sec)

Single Row functions

**Q1 - To list all employees and their email, to generate email use 2 to 5 characters from ename Concat it with 2 to 4 characters in job and then concat it with ‘@mycompany.com’**

**Ans –**

mysql> select\*, concat(substr(ename ,1,4) , substr(job, 1,3),'@mycompany.com') email

-> from emp;

+-------+--------+-----------+------+------------+---------+---------+--------+-----------------------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO | email |

+-------+--------+-----------+------+------------+---------+---------+--------+-----------------------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 | SMITCLE@mycompany.com |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 | ALLESAL@mycompany.com |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 | WARDSAL@mycompany.com |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 | JONEMAN@mycompany.com |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 | MARTSAL@mycompany.com |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 | BLAKMAN@mycompany.com |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 | CLARMAN@mycompany.com |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 | SCOTANA@mycompany.com |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 | KINGPRE@mycompany.com |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 | TURNSAL@mycompany.com |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 | ADAMCLE@mycompany.com |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 | JAMECLE@mycompany.com |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 | FORDANA@mycompany.com |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 | MILLCLE@mycompany.com |

+-------+--------+-----------+------+------------+---------+---------+--------+-----------------------+

14 rows in set (0.00 sec)

**Q2 - List all employees who joined in September.**

**Ans –**

mysql> select\*

-> from emp

-> where month(hiredate)=9;

+-------+--------+----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+---------+--------+

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

+-------+--------+----------+------+------------+---------+---------+--------+

2 rows in set (0.02 sec)

**Q3 - List the empno, name, and department number of the emp who have experience of 18 or more years and sort them based on their experience.**

**Ans –**

mysql> select empno , ename, deptno, floor(datediff(curdate(),hiredate)/365) Experience

-> from emp

-> where floor(datediff(curdate(),hiredate)/365)>=18

-> order by floor(datediff(curdate(),hiredate)/365);

+-------+--------+--------+------------+

| empno | ename | deptno | Experience |

+-------+--------+--------+------------+

| 7788 | SCOTT | 20 | 39 |

| 7876 | ADAMS | 20 | 39 |

| 7839 | KING | 10 | 40 |

| 7900 | JAMES | 30 | 40 |

| 7902 | FORD | 20 | 40 |

| 7934 | MILLER | 10 | 40 |

| 7369 | SMITH | 20 | 41 |

| 7499 | ALLEN | 30 | 41 |

| 7521 | WARD | 30 | 41 |

| 7566 | JONES | 20 | 41 |

| 7654 | MARTIN | 30 | 41 |

| 7698 | BLAKE | 30 | 41 |

| 7782 | CLARK | 10 | 41 |

| 7844 | TURNER | 30 | 41 |

+-------+--------+--------+------------+

14 rows in set (0.03 sec)

**Q4 - Display the employee details who joined on 3rd of any month or any year**

**Ans –**

mysql> select \*

-> from emp

-> where day(hiredate)=3;

+-------+-------+---------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------+--------+

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

+-------+-------+---------+------+------------+---------+------+--------+

2 rows in set (0.00 sec)

**Q5 - display all employees who joined between years 1981 to 1983.**

**Ans –**

mysql> select\*

-> from emp

-> where hiredate between '1981-01-01' and '1983-01-01';

+-------+--------+-----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-----------+------+------------+---------+---------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-----------+------+------------+---------+---------+--------+

12 rows in set (0.00 sec)

**Q6 – Display the Highest, Lowest, Total & Average salary of all employee. Label the columns Maximum, Minimum, Total and Average respectively for each Department. Also round the result to the nearest whole number.**

**Ans –**

mysql> select max(sal)Maximum , min(sal)Minimum, sum(sal)Total , ceil(avg(sal))Average , Deptno

-> from emp

-> group by deptno

-> order by deptno;

+---------+---------+----------+---------+--------+

| Maximum | Minimum | Total | Average | Deptno |

+---------+---------+----------+---------+--------+

| 5000.00 | 1300.00 | 8750.00 | 2917 | 10 |

| 3000.00 | 800.00 | 10875.00 | 2175 | 20 |

| 2850.00 | 950.00 | 9400.00 | 1567 | 30 |

+---------+---------+----------+---------+--------+

3 rows in set (0.00 sec)

**Q7 - Display Department no and number of managers working in that department. Label the column as ‘Total Number of Managers’ for each department.**

**Ans –**

mysql> select deptno,count(\*) Total\_Number\_of\_Manager

-> from emp

-> where job = 'manager'

-> group by deptno;

+--------+-------------------------+

| deptno | Total\_Number\_of\_Manager |

+--------+-------------------------+

| 20 | 1 |

| 30 | 1 |

| 10 | 1 |

+--------+-------------------------+

3 rows in set (0.00 sec)

**Q8 - Get the Department number, and sum of Salary of all non managers where the sum is greater than 2000.**

**Ans –**

mysql> select deptno, sum(sal), count(\*)

-> from emp

-> where job!='manager'

-> group by deptno

-> having sum(sal)>2000;

+--------+----------+----------+

| deptno | sum(sal) | count(\*) |

+--------+----------+----------+

| 20 | 7900.00 | 4 |

| 30 | 6550.00 | 5 |

| 10 | 6300.00 | 2 |

+--------+----------+----------+

3 rows in set (0.00 sec)

**DBT Assignment 2**

Practice DQL statement

Write SQL statement for the following

**Q 1 . To find all managers with salary >1500**

**Ans –**

mysql> select\*

-> from emp

-> where job='manager' and sal>1500;

+-------+-------+---------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------+--------+

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

+-------+-------+---------+------+------------+---------+------+--------+

3 rows in set (0.00 sec)

**Q2 .list all employees with sal >1200 and < 2000 .**

**Ans –**

mysql> select\*

-> from emp

-> where sal between 1201 and 1999;

+-------+--------+----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+---------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+----------+------+------------+---------+---------+--------+

5 rows in set (0.00 sec)

**Q3 - list all employees with sal is 1600 or sal is 800 or sal is 1900**

**Ans –**

mysql> select\*

-> from emp

-> where sal=1600 or sal=800 or sal=1900;

+-------+-------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+----------+------+------------+---------+--------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

+-------+-------+----------+------+------------+---------+--------+--------+

2 rows in set (0.00 sec)

**Q4 - list all employees with R at second last position in name**

**Ans –**

mysql> select\*

-> from emp

-> where ename regexp '.\*r.$';

+-------+-------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+----------+------+------------+---------+--------+--------+

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

+-------+-------+----------+------+------------+---------+--------+--------+

3 rows in set (0.00 sec)

**Q5 - List all employees with name starts with A and ends with N**

**Ans –** mysql> select\*

-> from emp

-> where ename regexp '^a.\*n$';

+-------+-------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+----------+------+------------+---------+--------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

+-------+-------+----------+------+------------+---------+--------+--------+

1 row in set (0.00 sec)

**Q2. Solve following**

**Q1. list all employees with salary > 1250 and dept no=30**

Ans - mysql> select\*

-> from emp

-> where sal>1250 and deptno=30;

+-------+--------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+--------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

+-------+--------+----------+------+------------+---------+--------+--------+

3 rows in set (0.00 sec)

**Q2. list all employees with salary >=1250 and <= 3000**

Ans –

mysql> select\*

-> from emp

-> where sal between 1250 and 3000;

+-------+--------+----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+---------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+----------+------+------------+---------+---------+--------+

10 rows in set (0.00 sec)

**Q3. list all employees with salary >1250 and < 3000**

Ans –

mysql> select\*

-> from emp

-> where sal between 1251 and 2999;

+-------+--------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+--------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+----------+------+------------+---------+--------+--------+

6 rows in set (0.00 sec)

**Q4. list all employees with salary either equal to 3000 or 1250 or 2500**

Ans –

mysql> select\*

-> from emp

-> where sal=1250 or sal = 3000 or sal =2500;

+-------+--------+----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+---------+--------+

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

+-------+--------+----------+------+------------+---------+---------+--------+

4 rows in set (0.00 sec)

**Q5. list all employee with name=SMITH**

Ans –

mysql> select\*

-> from emp

-> where ename='smith';

+-------+-------+-------+------+------------+--------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+-------+------+------------+--------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

+-------+-------+-------+------+------------+--------+------+--------+

1 row in set (0.00 sec)

**Q6. list all employees with name starting with S**

Ans –

mysql> select \*

-> from emp

-> where ename regexp '^s';

+-------+-------+---------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

+-------+-------+---------+------+------------+---------+------+--------+

2 rows in set (0.00 sec)

**Q7. list all employees with name ending with S**

Ans –

mysql> select \*

-> from emp

-> where ename regexp '.\*s$';

+-------+-------+---------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------+--------+

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

+-------+-------+---------+------+------------+---------+------+--------+

3 rows in set (0.00 sec)

**Q8. list all employees with name contains I at 2nd position**

Ans –

mysql> select\*

-> from emp

-> where ename regexp '^.i.\*';

+-------+--------+-----------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-----------+------+------------+---------+------+--------+

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+-----------+------+------------+---------+------+--------+

2 rows in set (0.00 sec)

**Q9. list all employees with name starts with A ends with N and somewhere in between L is** there

Ans –

mysql> select\*

-> from emp

-> where ename regexp '^al.\*n$';

+-------+-------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+----------+------+------------+---------+--------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

+-------+-------+----------+------+------------+---------+--------+--------+

1 row in set (0.00 sec)

**Q10. list all employees with name starts with A and B at 3 rd position and P at second last position**

Ans –

mysql> select\*

-> from emp

-> where ename regexp '^a.b.\*p.$';

Empty set (0.00 sec)

**Q11. List all employees with name starts with either A or starts with S or starts with W**

Ans –

mysql>

mysql> select\*

-> from emp

-> where ename regexp '^[asw]';

+-------+-------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+----------+------+------------+---------+--------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

+-------+-------+----------+------+------------+---------+--------+--------+

5 rows in set (0.00 sec)

practice Aggregate functions

**Q12. find max sal and min sal for each job**

Ans –

mysql> select max(sal) , min(sal)

-> from emp

-> group by job;

+----------+----------+

| max(sal) | min(sal) |

+----------+----------+

| 1300.00 | 800.00 |

| 1600.00 | 1250.00 |

| 2975.00 | 2450.00 |

| 3000.00 | 3000.00 |

| 5000.00 | 5000.00 |

+----------+----------+

5 rows in set (0.00 sec)

**Q13. find how many employess have not received commission**Ans –

mysql> select count(\*)

-> from emp

-> where comm is null or comm=0;

+----------+

| count(\*) |

+----------+

| 11 |

+----------+

1 row in set (0.00 sec)

**Q14. find sum of sal of all employees working in dept no 10**

Ans –

mysql> select sum(sal) sum\_of\_salary , deptno

-> from emp

-> where deptno = 10

-> ;

+---------------+--------+

| sum\_of\_salary | deptno |

+---------------+--------+

| 8750.00 | 10 |

+---------------+--------+

1 row in set (0.00 sec)

**Q15. find maximum salary,average sal for each job in every department**

Ans –

mysql> select max(sal) Maximum\_salary , ceil(avg(sal)) Average\_salary , job, deptno

-> from emp

-> group by job , deptno;

+----------------+----------------+-----------+--------+

| Maximum\_salary | Average\_salary | job | deptno |

+----------------+----------------+-----------+--------+

| 1100.00 | 950 | CLERK | 20 |

| 1600.00 | 1400 | SALESMAN | 30 |

| 2975.00 | 2975 | MANAGER | 20 |

| 2850.00 | 2850 | MANAGER | 30 |

| 2450.00 | 2450 | MANAGER | 10 |

| 3000.00 | 3000 | ANALYST | 20 |

| 5000.00 | 5000 | PRESIDENT | 10 |

| 950.00 | 950 | CLERK | 30 |

| 1300.00 | 1300 | CLERK | 10 |

+----------------+----------------+-----------+--------+

9 rows in set (0.00 sec)

**Q 16. find max salary for every department if deptno is > 15 and arrange data in deptno order.**

Ans –

mysql> select max(sal) Maximum\_sal , deptno

-> from emp

-> where deptno>15

-> group by deptno;

+-------------+--------+

| Maximum\_sal | deptno |

+-------------+--------+

| 3000.00 | 20 |

| 2850.00 | 30 |

+-------------+--------+

2 rows in set (0.00 sec)

**Q 17. find sum salary for every department if sum is > 3000**

Ans –

mysql> select sum(sal) Total\_sal, deptno

-> from emp

-> group by deptno

-> having sum(sal)>3000;

+-----------+--------+

| Total\_sal | deptno |

+-----------+--------+

| 10875.00 | 20 |

| 9400.00 | 30 |

| 8750.00 | 10 |

+-----------+--------+

3 rows in set (0.00 sec)

**Q 18. list all department which has minimum 5 employees.**

Ans –

mysql> select\* , count(\*)

-> from emp

-> group by deptno

-> having count(\*)>=5;

+-------+-------+----------+------+------------+---------+--------+--------+----------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO | count(\*) |

+-------+-------+----------+------+------------+---------+--------+--------+----------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 | 5 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 | 6 |

+-------+-------+----------+------+------------+---------+--------+--------+----------+

2 rows in set (0.00 sec)

**Q19. count how many employees earn salary more than 2000 in each job**

Ans –

mysql> select count(\*)

-> from emp

-> where sal>2000;

+----------+

| count(\*) |

+----------+

| 6 |

+----------+

1 row in set (0.00 sec)

**Q 20. list all enames and jobs in small case letter**

Ans –

mysql> select\* , lower(job) , lower(ename)

-> from emp;

+-------+--------+-----------+------+------------+---------+---------+--------+------------+--------------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO | lower(job) | lower(ename) |

+-------+--------+-----------+------+------------+---------+---------+--------+------------+--------------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 | clerk | smith |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 | salesman | allen |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 | salesman | ward |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 | manager | jones |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 | salesman | martin |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 | manager | blake |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 | manager | clark |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 | analyst | scott |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 | president | king |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 | salesman | turner |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 | clerk | adams |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 | clerk | james |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 | analyst | ford |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 | clerk | miller |

+-------+--------+-----------+------+------------+---------+---------+--------+------------+--------------+

14 rows in set (0.01 sec)

**Q21 - list all names and jobs so that the length of name should be 15 if it is smaller then add spaces to left**

Ans –

mysql> select lpad(ename , 15 ,' ') , lpad(job,15 , ' ')

-> from emp;

+-----------------------+--------------------+

| lpad(ename , 15 ,' ') | lpad(job,15 , ' ') |

+-----------------------+--------------------+

| SMITH | CLERK |

| ALLEN | SALESMAN |

| WARD | SALESMAN |

| JONES | MANAGER |

| MARTIN | SALESMAN |

| BLAKE | MANAGER |

| CLARK | MANAGER |

| SCOTT | ANALYST |

| KING | PRESIDENT |

| TURNER | SALESMAN |

| ADAMS | CLERK |

| JAMES | CLERK |

| FORD | ANALYST |

| MILLER | CLERK |

+-----------------------+--------------------+

14 rows in set (0.00 sec)

**Q22 - display min sal,max sal, average sal for all employees working under same manager**

Ans –

mysql> select min(sal) ,max(sal) , avg(sal)

-> from emp

-> where job!=mgr

-> group by mgr;

+----------+----------+-------------+

| min(sal) | max(sal) | avg(sal) |

+----------+----------+-------------+

| 800.00 | 800.00 | 800.000000 |

| 950.00 | 1600.00 | 1310.000000 |

| 2450.00 | 2975.00 | 2758.333333 |

| 3000.00 | 3000.00 | 3000.000000 |

| 1100.00 | 1100.00 | 1100.000000 |

| 1300.00 | 1300.00 | 1300.000000 |

+----------+----------+-------------+

6 rows in set, 14 warnings (0.00 sec)

**Q23 - find sum of total earnings(sal+comm), average of sal+comm for all employees who earn sal > 2000 and work in either dept no 10 or 20**

Ans –

mysql> select\* , sum(sal+ifnull(comm,0))total\_earning , avg(sal+ifnull(comm,0)) avg

-> from emp

-> where sal>2000 and deptno in(10,20)

-> group by ename;

+-------+-------+-----------+------+------------+---------+------+--------+---------------+-------------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO | total\_earning | avg |

+-------+-------+-----------+------+------------+---------+------+--------+---------------+-------------+

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 | 2975.00 | 2975.000000 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 | 2450.00 | 2450.000000 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 | 3000.00 | 3000.000000 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 | 5000.00 | 5000.000000 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 | 3000.00 | 3000.000000 |

+-------+-------+-----------+------+------------+---------+------+--------+---------------+-------------+

5 rows in set (0.00 sec)

**Q24 - list all employees who joined in Aug 1980 and salary is >1500 and < 2500**

Ans –

mysql> select\* from emp

-> where month(hiredate)=8 and year(hiredate)=1980 and sal between 1501 and 2499;

Empty set (0.00 sec)

Q25 - list all employees joined in either aug or may or dec

Ans –

mysql> select\*

-> from emp

-> where month(hiredate)=8 or month(hiredate)=5 or month(hiredate) = 12;

+-------+-------+---------+------+------------+---------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

+-------+-------+---------+------+------------+---------+------+--------+

5 rows in set (0.00 sec)

**Q26 - display name and hiredate in dd/mm/yy format for all employees whose job is clerk and they earn some commission.**

Ans –

mysql> select ename , date\_format(hiredate, '%d/%m/%y')hiredate from emp

-> where job='clerk' and comm is not null;

Empty set (0.00 sec)

**Q27 - list empcode,empno,name and job for each employee. (note :empcode is 3 to 5 characters from name and last 2 characters of job)**

Ans –

mysql> select concat(substr(ename,1,3),substr(job,length(job)-2,2)) empcode , empno , ename , job from emp;

+---------+-------+--------+-----------+

| empcode | empno | ename | job |

+---------+-------+--------+-----------+

| SMIER | 7369 | SMITH | CLERK |

| ALLMA | 7499 | ALLEN | SALESMAN |

| WARMA | 7521 | WARD | SALESMAN |

| JONGE | 7566 | JONES | MANAGER |

| MARMA | 7654 | MARTIN | SALESMAN |

| BLAGE | 7698 | BLAKE | MANAGER |

| CLAGE | 7782 | CLARK | MANAGER |

| SCOYS | 7788 | SCOTT | ANALYST |

| KINEN | 7839 | KING | PRESIDENT |

| TURMA | 7844 | TURNER | SALESMAN |

| ADAER | 7876 | ADAMS | CLERK |

| JAMER | 7900 | JAMES | CLERK |

| FORYS | 7902 | FORD | ANALYST |

| MILER | 7934 | MILLER | CLERK |

+---------+-------+--------+-----------+

14 rows in set (0.00 sec)

**Q28 - display thousand separator and $ symbol for commission if it is null then display it as 0 for all employees whose name starts with A and ends with N**

Ans –

mysql> select ename , concat(format(sal,2),'$')salary from emp

-> where ename regexp '^a.\*n$';

+-------+-----------+

| ename | salary |

+-------+-----------+

| ALLEN | 1,600.00$ |

+-------+-----------+

1 row in set (0.00 sec)

**Q29 - Display empid,name,sal,comm,remark Remark should base on following conditions comm >= 600 "excellent Keep it up" if it < 600 or not null "good" otherwise "Need improvement"**

Ans –

mysql> select ename , job, comm ,

-> case

-> when comm>=600 then "excellent keep it up"

-> when comm <600 and comm is not null then "good"

-> else "need improvement"

-> end as remark

-> from emp;

+--------+-----------+---------+----------------------+

| ename | job | comm | remark |

+--------+-----------+---------+----------------------+

| SMITH | CLERK | NULL | need improvement |

| ALLEN | SALESMAN | 300.00 | good |

| WARD | SALESMAN | 500.00 | good |

| JONES | MANAGER | NULL | need improvement |

| MARTIN | SALESMAN | 1400.00 | excellent keep it up |

| BLAKE | MANAGER | NULL | need improvement |

| CLARK | MANAGER | NULL | need improvement |

| SCOTT | ANALYST | NULL | need improvement |

| KING | PRESIDENT | NULL | need improvement |

| TURNER | SALESMAN | 0.00 | good |

| ADAMS | CLERK | NULL | need improvement |

| JAMES | CLERK | NULL | need improvement |

| FORD | ANALYST | NULL | need improvement |

| MILLER | CLERK | NULL | need improvement |

+--------+-----------+---------+----------------------+

14 rows in set (0.00 sec)

**Q30 – Display empid, name, deptno and department name by using following conditions. dept 10 then "Hr" if 20 then "Admin" if 30 then "accounts" otherwise purchase**

Ans –

mysql> select empno , ename , deptno, case

-> when deptno=10 then "HR"

-> when deptno=20 then "Admin"

-> when deptno=30 then "accounts"

-> else "purchase"

-> end as department

-> from emp;

+-------+--------+--------+------------+

| empno | ename | deptno | department |

+-------+--------+--------+------------+

| 7369 | SMITH | 20 | Admin |

| 7499 | ALLEN | 30 | accounts |

| 7521 | WARD | 30 | accounts |

| 7566 | JONES | 20 | Admin |

| 7654 | MARTIN | 30 | accounts |

| 7698 | BLAKE | 30 | accounts |

| 7782 | CLARK | 10 | HR |

| 7788 | SCOTT | 20 | Admin |

| 7839 | KING | 10 | HR |

| 7844 | TURNER | 30 | accounts |

| 7876 | ADAMS | 20 | Admin |

| 7900 | JAMES | 30 | accounts |

| 7902 | FORD | 20 | Admin |

| 7934 | MILLER | 10 | HR |

+-------+--------+--------+------------+

14 rows in set (0.00 sec)

**Topic ----------------- create Table, DML , subquery and joins**

**Q31 - Practice creating following tables**

**create table mydept\_DAC ( deptid number primary key, dname varchar(20) not null unique, dloc varchar(20) )**

create table myemployee ( empno number(5) primary key, fname varchar(15) not null, mname varchar(15), lname varchar(15) not null, sal number(9,2) check(sal >=1000), doj date default sysdate, passportnum varchar(15) unique, deptno number constraint fk\_deptno references mydept\_DAC(deptid) on delete cascade )

Ans –

A - create table mydept\_dac(deptid int primary key , dname varchar(20) not null unique , dloc varchar(20));

Query OK, 0 rows affected (0.24 sec)

mysql> desc mydept\_dac;

+--------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+-------------+------+-----+---------+-------+

| deptid | int | NO | PRI | NULL | |

| dname | varchar(20) | NO | UNI | NULL | |

| dloc | varchar(20) | YES | | NULL | |

+--------+-------------+------+-----+---------+-------+

3 rows in set (0.00 sec)

B –

mysql> create table myemployee(empno int primary key, fname varchar(15) not null, mname varchar(15), iname varchar(15) not null ,

-> sal decimal(9,2) check(sal>=2000), doj date default (sysdate()), passportno varchar(15) unique,

-> deptid int ,

-> constraint deptid\_fk foreign key (deptid) references mydept\_dac(deptid));

Query OK, 0 rows affected (0.13 sec)

mysql> desc myemployee;

+------------+--------------+------+-----+-----------+-------------------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+-----------+-------------------+

| empno | int | NO | PRI | NULL | |

| fname | varchar(15) | NO | | NULL | |

| mname | varchar(15) | YES | | NULL | |

| iname | varchar(15) | NO | | NULL | |

| sal | decimal(9,2) | YES | | NULL | |

| doj | date | YES | | sysdate() | DEFAULT\_GENERATED |

| passportno | varchar(15) | YES | UNI | NULL | |

| deptid | int | YES | MUL | NULL | |

+------------+--------------+------+-----+-----------+-------------------+

8 rows in set (0.00 sec)

**Q32 – . Create following tables Student, Course Student (sid,sname) ---------------- sid ---primary key Course(cid,cname)-------------- cid ---primary ke Marks(studid,courseid,marks) Sample data for marks table studid,courseid,marks 1 1 99 1 3 98 2 1 95 2 2 97 create table marks( studid number, courseid number, marks number, constraint pk primary key(studid,courseid), constraint fk\_sid foreign key (studid) references student(sid) on delete cascade, constraint fk\_cid foreign key (courseid) references course(cid) )**

Ans –

mysql> select \* from student;

+-----+-------+

| sid | sname |

+-----+-------+

| 1 | dac |

| 2 | mahi |

+-----+-------+

2 rows in set (0.00 sec)

mysql> select \* from course;

+-----+-------+

| cid | cname |

+-----+-------+

| 1 | dac |

| 2 | dbda |

+-----+-------+

2 rows in set (0.00 sec)

mysql> select\* from marks;

+-----+-----+-------+

| sid | cid | marks |

+-----+-----+-------+

| 1 | 1 | 99 |

| 1 | 2 | 98 |

| 2 | 1 | 98 |

+-----+-----+-------+

3 rows in set (0.00 sec)

**Q33 - Create empty table emp10 with table structure same as emp table. create table emp10 as ( select \* from emp where 1=2; )**

Ans –

mysql> create table emp10 as

-> (select\* from emp where 1=2);

Query OK, 0 rows affected (0.11 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> show tables;

+----------------+

| Tables\_in\_test |

+----------------+

| bonus |

| course |

| dept |

| dummy |

| emp |

| emp10 |

| marks |

| mydept\_dac |

| myemployee |

| salgrade |

| student |

+----------------+

11 rows in set (0.00 sec)

**Q 34 - Solve following using alter table add primary key constraint on emp,dept,salgrade emp ----→ empno dept---→ deptno salgrade---→ grade add foreign key constarint in emp deptno --->> dept(deptno) add new column in emp table netsal with constraint default 1000f**

Ans –

mysql> alter table emp

-> add constraint pk primary key (empno);

Query OK, 0 rows affected (0.23 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table dept

-> add constraint pk primary key (deptno);

Query OK, 0 rows affected (0.15 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table salgrade

-> add constraint pk primary key (grade);

Query OK, 0 rows affected (0.16 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table emp

-> add constraint fk\_deptno foreign key (deptno) references dept(deptno);

Query OK, 14 rows affected (0.13 sec)

Records: 14 Duplicates: 0 Warnings: 0

mysql> alter table emp

-> add net\_salary int default 1000 after sal;

Query OK, 0 rows affected (0.06 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc emp;

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| EMPNO | int | NO | PRI | NULL | |

| ENAME | varchar(10) | YES | | NULL | |

| JOB | varchar(9) | YES | | NULL | |

| MGR | int | YES | | NULL | |

| HIREDATE | date | YES | | NULL | |

| SAL | decimal(7,2) | YES | | NULL | |

| net\_salary | int | YES | | 1000 | |

| COMM | decimal(7,2) | YES | | NULL | |

| DEPTNO | int | YES | MUL | NULL | |

+------------+--------------+------+-----+---------+-------+

9 rows in set (0.00 sec)

**Q35 - Update employee sal ---- increase sal of each employee by 15 % sal +comm, change the job to manager and mgr to 7777 for all employees in deptno 10.**

Ans –

mysql> update emp

-> set sal=sal+(0.15\*(sal+ifnull(comm,0))), job = 'manager', mgr=7777 where deptno=10;

Query OK, 3 rows affected (0.04 sec)

Rows matched: 3 Changed: 3 Warnings: 0

mysql> select\* from emp;

+-------+--------+----------+------+------------+---------+------------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+---------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 1000 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1000 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | 1000 | NULL | 30 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 1000 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | 1000 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+---------+--------+

14 rows in set (0.00 sec)

**Q36 - change job of smith to senior clerk**

Ans –

mysql> update emp

-> set job = "S-clerk" where ename = 'smith';

Query OK, 1 row affected (0.02 sec)

Rows matched: 1 Changed: 1 Warnings: 0

**Q37 – increase salary of all employees by 15% if they are earning some commission**

Ans –

mysql> select \* , sal+0.15 \* sal total\_sal from emp

-> where comm is not null;

+-------+--------+----------+------+------------+---------+------------+---------+--------+-----------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO | total\_sal |

+-------+--------+----------+------+------------+---------+------------+---------+--------+-----------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 1000 | 300.00 | 30 | 1840.0000 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 1000 | 500.00 | 30 | 1437.5000 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1000 | 1400.00 | 30 | 1437.5000 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 1000 | 0.00 | 30 | 1725.0000 |

+-------+--------+----------+------+------------+---------+------------+---------+--------+-----------+

4 rows in set (0.00 sec)

**Q38 - list all employees with sal>smith's sal**

Ans –

mysql> select\* from emp

-> where sal> ( select sal from emp where ename='smith');

+-------+--------+----------+------+------------+---------+------------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+---------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 1000 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1000 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | 1000 | NULL | 30 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 1000 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | 1000 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+---------+--------+

13 rows in set (0.00 sec)

**Q39 - list all employees who are working in smith's department**

Ans –

mysql> select\* from emp

-> where deptno=(select deptno from emp where ename='smith');

+-------+-------+---------+------+------------+---------+------------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------------+------+--------+

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | 1000 | NULL | 20 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | 1000 | NULL | 20 |

+-------+-------+---------+------+------------+---------+------------+------+--------+

5 rows in set (0.01 sec)

**Q40 – list all employees with sal < rajan's sal and salary > revati's sal**

Ans – mysql> select \* from emp

-> where sal<(select sal from emp where ename='ranjan') and sal>(select sal from emp where ename = 'revati');

Empty set (0.00 sec)

**Q41 - delete all employees working in alan's department**

Ans –

mysql> delete from emp

where deptno=(select\* from emp where ename='allen');

Query OK, 6 rows affected (0.02 sec)

**Q42 - change salary of Alan to the salary of Miller.**

Ans - mysql> update emp

-> set sal =( select sal from (select\* from emp) e where ename= 'miller') where ename = 'allen';

Query OK, 1 row affected (0.02 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> select \* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

9 rows in set (0.00 sec)

**Q43 change salary of all emplees who working in Wall's department to the salary of Miller.**

Ans - mysql> update emp

-> set sal= (select sal from(select\* from emp) e where ename='miller')

-> where deptno = (select deptno from(select\* from emp) m where ename ='ward');

Query OK, 1 row affected (0.03 sec)

Rows matched: 2 Changed: 1 Warnings: 0

mysql> select\* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

10 rows in set (0.00 sec)

**Q44 list all employees with salary > either Smith's salary or alan's sal**

Ans - mysql> select\* from emp

-> where sal>any (select sal from(select\* from emp) e where ename in ('smith','allen'));

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

9 rows in set (0.00 sec)

**Q45 list all employees who earn more than average sal of dept 10**

Ans - mysql> select \* from emp e

-> where sal>(select avg(sal) from emp where deptno=10);

+-------+-------+---------+------+------------+---------+------------+------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+-------+---------+------+------------+---------+------------+------+--------+

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

+-------+-------+---------+------+------------+---------+------------+------+--------+

1 row in set (0.00 sec)

**Q46 list all employees who earn more than average sal of Alan's department**

Ans -mysql> select \* from emp e

-> where sal>(select avg(sal) from emp m where deptno = (select deptno from emp where ename = 'allen'));

+-------+-------+-----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+-----------+------+------------+---------+--------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

+-------+-------+-----------+------+------------+---------+--------+--------+

7 rows in set (0.00 sec)

**Q47 - list all employees who are working in purchase department**

Ans - mysql> select\* from emp e

-> where deptno=(select deptno from dept where dname='purchase');

Empty set (0.02 sec)

**Q48 - list all employees who earn more than average salary of their own department**

Ans - mysql> select\* from emp e

-> where sal>(select avg(sal) from emp m

-> where m.deptno=e.deptno);

+-------+-------+-----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+-------+-----------+------+------------+---------+--------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 |

+-------+-------+-----------+------+------------+---------+--------+--------+

6 rows in set (0.00 sec)

**Q49 - list all employees who earn sal < than their managers salary**

Ans - mysql> select e.empno,e.ename,e.mgr,e.sal,m.sal mgrsal , m.empno mgrno,m.ename mgrname from emp e inner join emp m on e.mgr=m.empno where e.sal<m.sal;

+-------+--------+------+---------+---------+-------+---------+

| empno | ename | mgr | sal | mgrsal | mgrno | mgrname |

+-------+--------+------+---------+---------+-------+---------+

| 7900 | JAMES | 7698 | 950.00 | 2850.00 | 7698 | BLAKE |

| 7844 | TURNER | 7698 | 1500.00 | 2850.00 | 7698 | BLAKE |

| 7654 | MARTIN | 7698 | 1250.00 | 2850.00 | 7698 | BLAKE |

| 7521 | WARD | 7698 | 1250.00 | 2850.00 | 7698 | BLAKE |

| 7499 | ALLEN | 7698 | 1600.00 | 2850.00 | 7698 | BLAKE |

| 7934 | MILLER | 7782 | 1300.00 | 2450.00 | 7782 | CLARK |

| 7876 | ADAMS | 7788 | 1100.00 | 3000.00 | 7788 | SCOTT |

| 7782 | CLARK | 7839 | 2450.00 | 5000.00 | 7839 | KING |

| 7698 | BLAKE | 7839 | 2850.00 | 5000.00 | 7839 | KING |

| 7566 | JONES | 7839 | 2975.00 | 5000.00 | 7839 | KING |

| 7369 | SMITH | 7902 | 800.00 | 3000.00 | 7902 | FORD |

+-------+--------+------+---------+---------+-------+---------+

11 rows in set (0.00 sec)

**Q50 - list all employees who are earning more than average salary of their job**

Ans - mysql> select\* from emp e

-> where sal>(select avg(sal) from emp m where m.job=e.job);

+-------+--------+----------+------+------------+---------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+--------+--------+

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 |

+-------+--------+----------+------+------------+---------+--------+--------+

6 rows in set (0.00 sec)

**Q51 - display employee name and department**

Ans - mysql> select emp.ename , dept.dname from emp , dept where emp.deptno=dept.deptno;

+--------+------------+

| ename | dname |

+--------+------------+

| SMITH | RESEARCH |

| ALLEN | SALES |

| WARD | SALES |

| JONES | RESEARCH |

| MARTIN | SALES |

| BLAKE | SALES |

| CLARK | ACCOUNTING |

| SCOTT | RESEARCH |

| KING | ACCOUNTING |

| TURNER | SALES |

| ADAMS | RESEARCH |

| JAMES | SALES |

| FORD | RESEARCH |

| MILLER | ACCOUNTING |

+--------+------------+

14 rows in set (0.00 sec)

**Q52 - display empno,name,department name and grade (use emp,dept and salgrade table)**

Ans - mysql> select emp.empno, emp.ename, dept.dname , grade from emp,dept,salgrade where emp.deptno=dept.deptno and emp.sal between salgrade.losal and salgrade.hisal;

+-------+--------+------------+-------+

| empno | ename | dname | grade |

+-------+--------+------------+-------+

| 7900 | JAMES | SALES | 1 |

| 7876 | ADAMS | RESEARCH | 1 |

| 7369 | SMITH | RESEARCH | 1 |

| 7934 | MILLER | ACCOUNTING | 2 |

| 7654 | MARTIN | SALES | 2 |

| 7521 | WARD | SALES | 2 |

| 7844 | TURNER | SALES | 3 |

| 7499 | ALLEN | SALES | 3 |

| 7902 | FORD | RESEARCH | 4 |

| 7788 | SCOTT | RESEARCH | 4 |

| 7782 | CLARK | ACCOUNTING | 4 |

| 7698 | BLAKE | SALES | 4 |

| 7566 | JONES | RESEARCH | 4 |

| 7839 | KING | ACCOUNTING | 5 |

+-------+--------+------------+-------+

14 rows in set (0.06 sec)

**Q53 list all employees number,name, mgrno and manager name**

Ans - mysql> select e.empno,e.ename,e.mgr, m.empno mgrno,m.ename mgrname from emp e inner join emp m on e.mgr=m.empno;

+-------+--------+------+-------+---------+

| empno | ename | mgr | mgrno | mgrname |

+-------+--------+------+-------+---------+

| 7902 | FORD | 7566 | 7566 | JONES |

| 7788 | SCOTT | 7566 | 7566 | JONES |

| 7900 | JAMES | 7698 | 7698 | BLAKE |

| 7844 | TURNER | 7698 | 7698 | BLAKE |

| 7654 | MARTIN | 7698 | 7698 | BLAKE |

| 7521 | WARD | 7698 | 7698 | BLAKE |

| 7499 | ALLEN | 7698 | 7698 | BLAKE |

| 7934 | MILLER | 7782 | 7782 | CLARK |

| 7876 | ADAMS | 7788 | 7788 | SCOTT |

| 7782 | CLARK | 7839 | 7839 | KING |

| 7698 | BLAKE | 7839 | 7839 | KING |

| 7566 | JONES | 7839 | 7839 | KING |

| 7369 | SMITH | 7902 | 7902 | FORD |

+-------+--------+------+-------+---------+

13 rows in set (0.00 sec)

**Q54 - create following tables and solve following questions(primary keys are marked in yellow.**

mysql> create table salesman (sid int primary key , sname varchar(25), address varchar(25));

Query OK, 0 rows affected (0.07 sec)

mysql> create table category (cid int primary key , cname varchar(25) , description varchar(25));

Query OK, 0 rows affected (0.14 sec)

mysql> create table product( pid int primary key, pname varchar(25) , price decimal(9,2) check(price>0), Qty int check(Qty>0) , cid int , sid int,

-> constraint fk\_cid foreign key(cid) references category(cid) on delete cascade ,

-> constraint fk\_sid foreign key(sid) references salesman(sid) on delete cascade);

Query OK, 0 rows affected (0.16 sec)

**1] - list all product name,their category name and name of a person, who sold that product.**

Ans - mysql> select p.pname Product\_Name, c.cname Category\_Name , s.sname salesman\_Name

-> from product p , category c, salesman s

-> where p.cid=c.cid and p.sid=s.sid;

+---------------+---------------+---------------+

| Product\_Name | Category\_Name | salesman\_Name |

+---------------+---------------+---------------+

| Balaji | Kurkare | Totaram |

| Totamto\_chips | Chips | Babu |

| Good-Day | Biscuit | Sudhir |

| Marie | Biscuit | Bandu |

| Natural | Biscuit | Sudhir |

+---------------+---------------+---------------+

5 rows in set (0.00 sec)

**2] - list all product name and salesman name for all salesman who stays in pune**

Ans - mysql> select p.pname , s.sname ,s.address from product p left join salesman s on p.sid=s.sid where s.address='pune';

+----------+--------+---------+

| pname | sname | address |

+----------+--------+---------+

| Good-Day | Sudhir | Pune |

| Natural | Sudhir | Pune |

+----------+--------+---------+

2 rows in set (0.00 sec)

**3] - list all product name and category name**

Ans - mysql> select p.pname , c.cname

-> from product p, category c

-> where p.cid=c.cid;

+---------------+---------+

| pname | cname |

+---------------+---------+

| Balaji | Kurkare |

| Totamto\_chips | Chips |

| Good-Day | Biscuit |

| Marie | Biscuit |

| Natural | Biscuit |

+---------------+---------+

5 rows in set (0.00 sec)

**Q55 - create following tables and solve following questions(primary keys are marked in yellow)**

foreign keys are marked in green.

mysql> create table faculty(fid int primary key , fname varchar(25) not null , sp\_skiled1 varchar(25) , sp\_skilled2 varchar(25));

Query OK, 0 rows affected (0.09 sec)

mysql> create table room (roomid int primary key , rname varchar(20) , rloc varchar(20) not null);

Query OK, 0 rows affected (0.07 sec)

mysql> create table courses(cid int primary key , cname varchar(25) , rid int , fid int ,

-> constraint fk\_rid foreign key(rid) references room(roomid) ,

-> constraint fk\_fid foreign key (fid) references faculty(fid));

Query OK, 0 rows affected (0.13 sec)

**1] - list all courses for which no room is assigned and all rooms for which are**

**available.**

Ans - mysql> select\* from courses where rid is null;

+-----+-------+------+------+

| cid | cname | rid | fid |

+-----+-------+------+------+

| 141 | DTISS | NULL | NULL |

+-----+-------+------+------+

1 row in set (0.00 sec)

**2] - list all faculties who are not allocated to any course and rooms which are not**

**allocated to any course**

Ans - mysql> select f.fid , f.fname ,null roomid, null ename from faculty f

-> where not exists(select\* from courses c where f.fid=c.fid)

-> union

-> select null , null ,r.roomid,r.rname from room r

-> where not exists(select\* from courses c where r.roomid=c.rid);

+------+--------+--------+-------+

| fid | fname | roomid | ename |

+------+--------+--------+-------+

| 11 | Murali | NULL | NULL |

| 13 | Mahi | NULL | NULL |

| NULL | NULL | 103 | Mogra |

+------+--------+--------+-------+

3 rows in set (0.00 sec)

**3] - list all rooms which are allocated or not allocated to any courses.**

Ans - mysql> select r.roomid ,r.rname ,c.cname from room r left join courses c on r.roomid=c.rid;

+--------+--------+-------+

| roomid | rname | cname |

+--------+--------+-------+

| 100 | jasmin | DBDA |

| 101 | Rose | DAC |

| 103 | Mogra | NULL |

| 105 | Lotus | DIOT |

+--------+--------+-------+

4 rows in set (0.00 sec)

**4] - list all rooms which are not allocated to any course**

Ans - mysql> select r.roomid ,r.rname ,c.cname from room r left join courses c on r.roomid=c.rid where c.cname is null;

+--------+-------+-------+

| roomid | rname | cname |

+--------+-------+-------+

| 103 | Mogra | NULL |

+--------+-------+-------+

1 row in set (0.00 sec)

**5] - display courses and faculty assigned to those courses whose special skill is java**

Ans - mysql> select \* from faculty where sp\_skiled1='java' or sp\_skilled2 ='java';

+-----+--------+------------+-------------+

| fid | fname | sp\_skiled1 | sp\_skilled2 |

+-----+--------+------------+-------------+

| 11 | Murali | Java | Python |

| 13 | Mahi | C# | Java |

+-----+--------+------------+-------------+

2 rows in set (0.00 sec)

**6] - display time table --- it should contain course details , faculty and room details**

Ans - mysql> select\* from courses c join faculty f on f.fid=c.fid join room r on r.roomid = c.rid ;

+-----+-------+------+------+-----+--------+------------+-------------+--------+--------+-----------+

| cid | cname | rid | fid | fid | fname | sp\_skiled1 | sp\_skilled2 | roomid | rname | rloc |

+-----+-------+------+------+-----+--------+------------+-------------+--------+--------+-----------+

| 121 | DBDA | 100 | 10 | 10 | Jadhav | c | c++ | 100 | jasmin | 1st Floor |

| 151 | DIOT | 105 | 12 | 12 | bandu | C# | Python | 105 | Lotus | 1st Floor |

+-----+-------+------+------+-----+--------+------------+-------------+--------+--------+-----------+

2 rows in set (0.00 sec)

**Q56 - create following tables with given constraints**

**1] - List all products with category chips**

Ans - mysql> select p.pname , p.prodid,p.Qty, c.cid from product2 p, category2 c where c.cid=p.catid and c.cname='chips';

+----------+--------+------+-----+

| pname | prodid | Qty | cid |

+----------+--------+------+-----+

| lays | 123 | 30 | 1 |

| Pringles | 125 | 40 | 1 |

| Nachos | 134 | 50 | 1 |

+----------+--------+------+-----+

3 rows in set (0.00 sec)

**2] - display all products sold by kirti**

Ans - mysql> select p.pname , p.prodid , s.sname , s.sid from product2 p, saleman s where p.sid=s.sid and s.sname='kirti';

+--------+--------+-------+-----+

| pname | prodid | sname | sid |

+--------+--------+-------+-----+

| lays | 123 | Kirti | 12 |

| Nachos | 134 | Kirti | 12 |

+--------+--------+-------+-----+

2 rows in set (0.00 sec)

**3] - display all salesman who do not sold any product**

Ans - mysql> select \* from saleman

-> where not exists(select \* from product2 where product2.sid=saleman.sid);

+-----+--------+--------+

| sid | sname | city |

+-----+--------+--------+

| 13 | Prasad | Nashik |

+-----+--------+--------+

1 row in set (0.00 sec)

**4] - display all category for which no product is there**

Ans - mysql> select\* from category2

-> where not exists (select\* from product2 where product2.catid=category2.cid);

+-----+--------+-------------+

| cid | cname | description |

+-----+--------+-------------+

| 3 | snacks | yummy |

+-----+--------+-------------+

1 row in set (0.00 sec)

**5] - display all products with no category assigned**

Ans - mysql> select\* from category where cid is null;

Empty set (0.00 sec)

**6] - list all salesman who stays in city with name starts with P or N**

Ans - mysql> select\* from saleman

-> where city like 'P%' or city like 'N%';

+-----+--------+--------+

| sid | sname | city |

+-----+--------+--------+

| 11 | Rahul | Pune |

| 13 | Prasad | Nashik |

+-----+--------+--------+

2 rows in set (0.00 sec)

**7] - add new column in salesman table by name credit limit**

Ans - mysql> alter table saleman add credit\_limit int ;

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc saleman;

+--------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------------+-------------+------+-----+---------+-------+

| sid | int | NO | PRI | NULL | |

| sname | varchar(20) | NO | | NULL | |

| city | varchar(20) | YES | | NULL | |

| credit\_limit | int | YES | | NULL | |

+--------------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

**DBT Assignment 3**

**1] - create all given tables**

Ans - mysql> select\* from customer;

+-----+--------+---------+

| cid | cname | address |

+-----+--------+---------+

| 1 | Nilima | Pimpari |

| 2 | Ganesh | Pune |

| 3 | Pankaj | Mumbai |

+-----+--------+---------+

3 rows in set (0.00 sec)

mysql> select\* from salesman;

+-----+--------+--------+

| sid | sname | adress |

+-----+--------+--------+

| 10 | Rajesh | Mumbai |

| 11 | Seema | Pune |

| 13 | Rakhi | Pune |

+-----+--------+--------+

3 rows in set (0.00 sec)

mysql> select\* from vehicle;

+-----+------------+-----------+-------------+

| vid | vname | price | description |

+-----+------------+-----------+-------------+

| 1 | activa | 80000.00 | Great |

| 2 | santro | 800000.00 | Cool |

| 3 | Motor Bike | 100000.00 | Excellent |

+-----+------------+-----------+-------------+

3 rows in set (0.00 sec)

mysql> select\* from cust\_vehicle;

+-----+-----+------+-----------+

| cid | vid | sid | buy\_price |

+-----+-----+------+-----------+

| 1 | 1 | 10 | 75000.00 |

| 1 | 2 | 10 | 790000.00 |

| 2 | 3 | 11 | 80000.00 |

| 3 | 2 | 10 | 800000.00 |

| 3 | 3 | 11 | 75000.00 |

+-----+-----+------+-----------+

5 rows in set (0.00 sec)

**2] - create index on vehicle table based on price**

Ans - mysql> create index Price\_ind on vehicle(price);

Query OK, 0 rows affected (0.20 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> show index from vehicle;

+---------+------------+-----------+--------------+-------------+-----------+-------------+----------+--------+------+------------+---------+---------------+---------+------------+

| Table | Non\_unique | Key\_name | Seq\_in\_index | Column\_name | Collation | Cardinality | Sub\_part | Packed | Null | Index\_type | Comment | Index\_comment | Visible | Expression |

+---------+------------+-----------+--------------+-------------+-----------+-------------+----------+--------+------+------------+---------+---------------+---------+------------+

| vehicle | 0 | PRIMARY | 1 | vid | A | 2 | NULL | NULL | | BTREE | | | YES | NULL |

| vehicle | 1 | Price\_ind | 1 | price | A | 3 | NULL | NULL | YES | BTREE | | | YES | NULL |

+---------+------------+-----------+--------------+-------------+-----------+-------------+----------+--------+------+------------+---------+---------------+---------+------------+

2 rows in set (0.02 sec)

**3] - find all customer name,vehicle name, salesman name, discount earn by all customer**

Ans - mysql> select c.cname , v.vname , s.sname , ((v.price - cv.buy\_price)/v.price)\*100 discount

from customer c,vehicle v,salesman s,cust\_vehicle cv

-> where c.cid=cv.cid and v.vid=cv.vid and s.sid=cv.sid ;

+--------+------------+--------+-----------+

| cname | vname | sname | discount |

+--------+------------+--------+-----------+

| Nilima | activa | Rajesh | 6.250000 |

| Nilima | santro | Rajesh | 1.250000 |

| Ganesh | Motor Bike | Seema | 20.000000 |

| Pankaj | santro | Rajesh | 0.000000 |

| Pankaj | Motor Bike | Seema | 25.000000 |

+--------+------------+--------+-----------+

5 rows in set (0.00 sec)

**4] - find all customer name,vehicle name,salesman name for all salesman who stays in pune**

Ans -mysql> select c.cname , v.vname , s.sname, s.adress from customer c,vehicle v , salesman s,cust\_vehicle cv

-> where c.cid=cv.cid and v.vid=cv.vid and s.sid=cv.sid and s.adress='pune';

+--------+------------+-------+--------+

| cname | vname | sname | adress |

+--------+------------+-------+--------+

| Ganesh | Motor Bike | Seema | Pune |

| Pankaj | Motor Bike | Seema | Pune |

+--------+------------+-------+--------+

2 rows in set (0.00 sec)

**5] - find how many customers bought motor bike**

Ans - mysql> select c.cname , v.vname from customer c,vehicle v ,cust\_vehicle cv

-> where c.cid=cv.cid and v.vid=cv.vid and v.vname="motor bike";

+--------+------------+

| cname | vname |

+--------+------------+

| Ganesh | Motor Bike |

| Pankaj | Motor Bike |

+--------+------------+

2 rows in set (0.00 sec)

**6] -create a view find\_discount which displays output**

-------to create view

Ans - mysql> create view find\_discount

-> as

-> select cname , vname , price , price-buy\_price discount from customer c inner join cust\_vehicle cv on c.cid=cv.cid inner join vehicle v on v.vid=cv.vid;

Query OK, 0 rows affected (0.05 sec)

mysql> select\* from find\_discount;

+--------+------------+-----------+----------+

| cname | vname | price | discount |

+--------+------------+-----------+----------+

| Nilima | activa | 80000.00 | 5000.00 |

| Nilima | santro | 800000.00 | 10000.00 |

| Ganesh | Motor Bike | 100000.00 | 20000.00 |

| Pankaj | santro | 800000.00 | 0.00 |

| Pankaj | Motor Bike | 100000.00 | 25000.00 |

+--------+------------+-----------+----------+

5 rows in set (0.00 sec)

**7] - find all customer name, vehicle name, salesman name, discount earn by all customer**

Ans - mysql> select cname,vname,price,price-buy\_price discount from customer c inner join cust\_vehicle cv on c.cid=cv.cid inner join vehicle v on v.vid=cv.vid;

+--------+------------+-----------+----------+

| cname | vname | price | discount |

+--------+------------+-----------+----------+

| Nilima | activa | 80000.00 | 5000.00 |

| Nilima | santro | 800000.00 | 10000.00 |

| Ganesh | Motor Bike | 100000.00 | 20000.00 |

| Pankaj | santro | 800000.00 | 0.00 |

| Pankaj | Motor Bike | 100000.00 | 25000.00 |

+--------+------------+-----------+----------+

5 rows in set (0.00 sec)

**8] - create view my\_hr to display empno,ename,job,comm for all employees who earn**

**commission**

Ans - mysql> create view my\_hr as (select empno, ename ,job, comm from emp where comm is not null);

Query OK, 0 rows affected (0.02 sec)

mysql> select\* from my\_hr;

+-------+-------+----------+--------+

| empno | ename | job | comm |

+-------+-------+----------+--------+

| 7499 | ALLEN | salesman | 300.00 |

| 7521 | ward | salesman | 500.00 |

+-------+-------+----------+--------+

2 rows in set (0.01 sec)

mysql> select\* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

10 rows in set (0.00 sec)

**9] - create view mgr30 to display all employees from department 30**

Ans - mysql> create view mgr30 as (select\* from emp where deptno=30);

Query OK, 0 rows affected (0.03 sec)

mysql> select \* from mgr30;

+-------+-------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+-------+----------+------+------------+---------+------------+--------+--------+

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

+-------+-------+----------+------+------------+---------+------------+--------+--------+

2 rows in set (0.00 sec)

**10] - insert 3 employees in view mgr30 check whether insertion is possible**

Ans - mysql> insert into mgr30(empno,ename,job) values(7500,'Killer','Jugad');

Query OK, 1 row affected (0.02 sec)

mysql> insert into mgr30(empno,ename,job) values(7400,'RAMA','Sales')

-> ;

Query OK, 1 row affected (0.40 sec)

mysql> insert into mgr30(empno,ename,job) values(7300,'RIMA','PURCHAse');

Query OK, 1 row affected (0.11 sec)

mysql> select\* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 7300 | RIMA | PURCHAse | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7400 | RAMA | Sales | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7500 | Killer | Jugad | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | NULL | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3600.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

13 rows in set (0.00 sec)

**11] - insert 3 records in dept and display all records from dept**

Ans - mysql> insert into dept values(11,'PURCHASE','Mumbai');

Query OK, 1 row affected (0.03 sec)

mysql> insert into dept values(13,'PROJECT','NAGAR');

Query OK, 1 row affected (0.02 sec)

mysql> insert into dept values(19,'Production','Nashik');

Query OK, 1 row affected (0.01 sec)

mysql> select\* from dept;

+--------+------------+----------+

| DEPTNO | DNAME | LOC |

+--------+------------+----------+

| 10 | ACCOUNTING | NEW YORK |

| 11 | PURCHASE | Mumbai |

| 12 | HR | Pune |

| 13 | PROJECT | NAGAR |

| 19 | Production | Nashik |

| 20 | RESEARCH | DALLAS |

| 30 | SALES | CHICAGO |

| 40 | OPERATIONS | BOSTON |

+--------+------------+----------+

8 rows in set (0.00 sec)

**12] - use rollback command check what happens**

mysql> rollback;

Query OK, 0 rows affected (0.00 sec)

**13] - do the following**

Ans - mysql> select \* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 100 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 101 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 102 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7300 | RIMA | PURCHAse | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7400 | RAMA | Sales | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7500 | Killer | Jugad | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | NULL | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3600.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

mysql> set autocommit=0;

Query OK, 0 rows affected (0.00 sec)

mysql> insert into emp(empno) values(101)

-> ;

Query OK, 1 row affected (0.00 sec)

mysql> insert into emp(empno) values(100)

-> ;

Query OK, 1 row affected (0.00 sec)

mysql> insert into emp(empno) values(102);

Query OK, 1 row affected (0.00 sec)

mysql> savepoint A;

Query OK, 0 rows affected (0.00 sec)

mysql> insert into emp(empno) values(103);

Query OK, 1 row affected (0.00 sec)

mysql> insert into emp(empno) values(104);

Query OK, 1 row affected (0.00 sec)

mysql> insert into emp(empno) values(105);

Query OK, 1 row affected (0.00 sec)

mysql> savepoint b;

Query OK, 0 rows affected (0.00 sec)

mysql> delete from emp where empno=100;

Query OK, 1 row affected (0.00 sec)

mysql> delete from emp where empno=104;

Query OK, 1 row affected (0.00 sec)

mysql> rollback to b;

Query OK, 0 rows affected (0.00 sec)

mysql> select\* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 100 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 101 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 102 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 103 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 104 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 105 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7300 | RIMA | PURCHAse | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7400 | RAMA | Sales | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7500 | Killer | Jugad | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | NULL | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3600.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

19 rows in set (0.00 sec)

mysql> rollback to a;

Query OK, 0 rows affected (0.00 sec)

mysql> select\* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 100 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 101 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 102 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7300 | RIMA | PURCHAse | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7400 | RAMA | Sales | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7500 | Killer | Jugad | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | NULL | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3600.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

16 rows in set (0.00 sec)

mysql> commit;

Query OK, 0 rows affected (0.03 sec)

mysql> select\* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 100 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 101 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 102 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7300 | RIMA | PURCHAse | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7400 | RAMA | Sales | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7500 | Killer | Jugad | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | NULL | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3600.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

16 rows in set (0.00 sec)

mysql> rollback to a;

ERROR 1305 (42000): SAVEPOINT a does not exist

**14] - create a procedure getMin(deptno,minsal) to find minimum salary of given table**

Ans -

delimiter $$

create procedure getMin( in pdeptno int , out pminsal decimal(9,2))

begin

select min(sal) into pminsal

from emp where deptno=pdeptno;

end$$

delimiter ;

Query OK, 0 rows affected (0.17 sec)

mysql> delimiter ;

mysql> call getMin(10,@c);

Query OK, 1 row affected (0.00 sec)

mysql> select @c;

+---------+

| @c |

+---------+

| 1495.00 |

+---------+

1 row in set (0.00 sec)

**DBT Assignment 4**

**1] - write a procedure to insert record into employee table.**

**the procedure should accept empno, ename, sal, job, hiredate as input parameter**

**write insert statement inside procedure insert\_rec to add one record into table.**

Ans -

delimiter $$

create procedure insert\_rec(peno int , penm varchar(20) , psal decimal(9,2) , pjob varchar(20) , phdate date)

begin

insert into emp(empno ,ename ,sal, job, hiredate) values(peno,penm , psal ,pjob,phdate);

end$$

delimiter ;

Query OK, 0 rows affected (0.05 sec)

mysql> delimiter ;

mysql> call insert\_rec(5000,'RAMA',35000,'Project','2021-01-05');

Query OK, 1 row affected (0.00 sec)

mysql> select \* from emp;

+-------+--------+----------+------+------------+----------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+----------+------------+--------+--------+

| 101 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 102 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 5000 | RAMA | Project | NULL | 2021-01-05 | 35000.00 | 1000 | NULL | NULL |

| 7300 | RIMA | PURCHAse | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7400 | RAMA | Sales | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7500 | Killer | Jugad | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | NULL | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3600.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+----------+------------+--------+--------+

16 rows in set (0.00 sec)

**2] - write a procedure to delete record from employee table.**

**the procedure should accept empno as input parameter.**

**write delete statement inside procedure delete\_emp to delete one record from emp table.**

Ans -

mysql> delimiter $$

mysql> create procedure delete\_info(peno int)

-> begin

-> delete from emp where empno=peno;

-> end$$

Query OK, 0 rows affected (0.04 sec)

mysql> delimiter ;

mysql> call delete\_info(5000);

Query OK, 1 row affected (0.00 sec)

mysql> select\* from emp;

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | net\_salary | COMM | DEPTNO |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

| 101 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 102 | NULL | NULL | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7300 | RIMA | PURCHAse | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7369 | SMITH | S-clerk | 7902 | 1980-12-17 | 800.00 | 1000 | NULL | 20 |

| 7400 | RAMA | Sales | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7499 | ALLEN | salesman | 7698 | 1981-02-18 | 1495.00 | 1000 | 300.00 | 30 |

| 7500 | Killer | Jugad | NULL | NULL | NULL | 1000 | NULL | NULL |

| 7521 | ward | salesman | 7698 | 1981-02-22 | 1495.00 | 1000 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | 1000 | NULL | 20 |

| 7782 | CLARK | manager | 7777 | 1981-06-09 | 2817.50 | 1000 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | NULL | 1000 | NULL | 20 |

| 7839 | KING | manager | 7777 | 1981-11-17 | 5750.00 | 1000 | NULL | 10 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | 1000 | NULL | 20 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3600.00 | 1000 | NULL | 20 |

| 7934 | MILLER | manager | 7777 | 1982-01-23 | 1495.00 | 1000 | NULL | 10 |

+-------+--------+----------+------+------------+---------+------------+--------+--------+

15 rows in set (0.00 sec)

**3] - write a procedure to display empno,ename,deptno,dname for all employees with sal > given salary.**

pass salary as a parameter to procedure

Ans -

mysql> delimiter $$

mysql> create procedure emp\_info(psal decimal(9,2))

-> begin

-> select e.empno , e.ename , e.deptno,d.dname from emp e , dept d

-> where e.deptno=d.deptno and sal>psal;

-> end$$

Query OK, 0 rows affected (0.07 sec)

mysql> delimiter ;

mysql> call emp\_info(1500);

+-------+-------+--------+------------+

| empno | ename | deptno | dname |

+-------+-------+--------+------------+

| 7566 | JONES | 20 | RESEARCH |

| 7782 | CLARK | 10 | ACCOUNTING |

| 7839 | KING | 10 | ACCOUNTING |

| 7902 | FORD | 20 | RESEARCH |

+-------+-------+--------+------------+

4 rows in set (0.00 sec)

Query OK, 0 rows affected (0.01 sec)

**4] - write a procedure to find min,max,avg of salary and number of employees in the given deptno.**

**deptno --→ in parameter .....min,max,avg and count ---→ out type parameter**

**execute procedure and then display values min,max,avg and count**

Ans -

delimiter $$

create procedure display\_info(pdno int , out pmin decimal(9,2) , out pmax decimal(9,2) , out pavg decimal(9,2), out pcount int)

begin

select min(sal) , max(sal) ,avg(sal) ,count(\*) into pmin, pmax,pavg,pcount from emp

where deptno=pdno;

end$$

delimiter ;

Query OK, 0 rows affected (0.19 sec)

mysql> call display\_info(30 ,@mn,@mx,@a,@c);

Query OK, 1 row affected, 1 warning (0.03 sec)

mysql> select @mn Minimum\_sal,@mx Maximum\_sal,@a Avg\_sal,@c Count;

+-------------+-------------+---------+-------+

| Minimum\_sal | Maximum\_sal | Avg\_sal | Count |

+-------------+-------------+---------+-------+

| 950.00 | 2850.00 | 1566.67 | 6 |

+-------------+-------------+---------+-------+

1 row in set (0.00 sec)

**5] - write a procedure to display all pid,pname,cid,cname and salesman name(use product,category and salesman table)**

Ans - delimiter &&

create procedure display\_prod\_info()

begin

select p.pid,p.pname,c.cid,c.cname,s.sname from product p,category c,salesman s

where s.sid=p.sid and c.cid=p.cid;

end&&

delimiter ;

Query OK, 0 rows affected (0.07 sec)

mysql> call display\_prod\_info();

+-------+---------------+-----+---------+---------+

| pid | pname | cid | cname | sname |

+-------+---------------+-----+---------+---------+

| 22001 | Good-Day | 4 | Biscuit | Sudhir |

| 22005 | Natural | 4 | Biscuit | Sudhir |

| 22003 | Totamto\_chips | 3 | Chips | Babu |

| 22004 | Balaji | 1 | Kurkare | Totaram |

| 22002 | Marie | 4 | Biscuit | Bandu |

+-------+---------------+-----+---------+---------+

5 rows in set (0.00 sec)

Query OK, 0 rows affected (0.01 sec)

6] - write a procedure to display all vehicles bought by a customer. pass cutome name as

a parameter.(use vehicle,salesman,custome and relation table)

Ans -

mysql> delimiter &&

mysql> create procedure display\_veh\_buy(in pcname varchar(20))

-> begin

-> select v.vname,c.cname,s.sname , cv.buy\_price from vehicle v, customer c , salesman s ,cust\_vehicle cv

-> where c.cid=cv.cid and v.vid=cv.vid and s.sid=cv.sid and cv.buy\_price is not null and c.cname=pcname;

-> end&&

Query OK, 0 rows affected (0.02 sec)

mysql> delimiter ;

mysql> call display\_veh\_buy('Ganesh');

+------------+--------+-------+-----------+

| vname | cname | sname | buy\_price |

+------------+--------+-------+-----------+

| Motor Bike | Ganesh | Seema | 80000.00 |

+------------+--------+-------+-----------+

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

**7] - Write a procedure that displays the following information of all emp Empno,Name,job,Salary,Status,deptno**

**Note: - Status will be (Greater, Lesser or Equal) respective to average salary of their own**

**department. Display an error message Emp table is empty if there is no matching record.**

Ans -

mysql> delimiter $$

mysql> create procedure emp\_info()

-> begin

-> declare peno int ;

-> declare penm varchar(20);

-> declare pavgsal decimal(9,2);

-> declare pjob varchar(20);

-> declare psal decimal(9,2);

-> declare pstatus varchar(20);

-> declare pdno int;

-> declare pstop int default 0;

-> declare empcur cursor for select empno , ename , job, sal , deptno from emp;

-> declare continue handler for not found set pstop =1;

-> open empcur;

-> lable:loop

-> fetch empcur into peno , penm , pjob ,psal , pdno;

-> if pstop=1 then

-> leave lable ;

-> end if;

-> select avg(sal) into pavgsal from emp

-> where deptno=pdno;

-> if psal>pavgsal then

-> set pstatus ='Greter';

-> elseif psal<pavgsal then

-> set pstatus='lesser';

-> else

-> set pstatus='equal';

-> end if ;

-> select peno, penm , psal , pdno,pstatus;

-> set pstatus=' ' ;

-> end loop;

-> close empcur;

-> end$$

Query OK, 0 rows affected (0.13 sec)

mysql> call emp\_info();

-> $$

+------+-------+--------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+-------+--------+------+---------+

| 7369 | SMITH | 800.00 | 20 | lesser |

+------+-------+--------+------+---------+

1 row in set (0.00 sec)

+------+-------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+-------+---------+------+---------+

| 7499 | ALLEN | 1600.00 | 30 | Greter |

+------+-------+---------+------+---------+

1 row in set (0.01 sec)

+------+------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+------+---------+------+---------+

| 7521 | WARD | 1250.00 | 30 | lesser |

+------+------+---------+------+---------+

1 row in set (0.01 sec)

+------+-------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+-------+---------+------+---------+

| 7566 | JONES | 2975.00 | 20 | Greter |

+------+-------+---------+------+---------+

1 row in set (0.02 sec)

+------+--------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+--------+---------+------+---------+

| 7654 | MARTIN | 1250.00 | 30 | lesser |

+------+--------+---------+------+---------+

1 row in set (0.04 sec)

+------+-------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+-------+---------+------+---------+

| 7698 | BLAKE | 2850.00 | 30 | Greter |

+------+-------+---------+------+---------+

1 row in set (0.05 sec)

+------+-------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+-------+---------+------+---------+

| 7782 | CLARK | 2450.00 | 10 | lesser |

+------+-------+---------+------+---------+

1 row in set (0.06 sec)

+------+-------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+-------+---------+------+---------+

| 7788 | SCOTT | 3000.00 | 20 | Greter |

+------+-------+---------+------+---------+

1 row in set (0.07 sec)

+------+------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+------+---------+------+---------+

| 7839 | KING | 5000.00 | 10 | Greter |

+------+------+---------+------+---------+

1 row in set (0.09 sec)

+------+--------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+--------+---------+------+---------+

| 7844 | TURNER | 1500.00 | 30 | lesser |

+------+--------+---------+------+---------+

1 row in set (0.09 sec)

+------+-------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+-------+---------+------+---------+

| 7876 | ADAMS | 1100.00 | 20 | lesser |

+------+-------+---------+------+---------+

1 row in set (0.11 sec)

+------+-------+--------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+-------+--------+------+---------+

| 7900 | JAMES | 950.00 | 30 | lesser |

+------+-------+--------+------+---------+

1 row in set (0.12 sec)

+------+------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+------+---------+------+---------+

| 7902 | FORD | 3000.00 | 20 | Greter |

+------+------+---------+------+---------+

1 row in set (0.13 sec)

+------+--------+---------+------+---------+

| peno | penm | psal | pdno | pstatus |

+------+--------+---------+------+---------+

| 7934 | MILLER | 1300.00 | 10 | lesser |

+------+--------+---------+------+---------+

1 row in set (0.14 sec)

Query OK, 0 rows affected (0.15 sec)

**8] - Write a procedure to update salary in emp table based on following rules.**

**Exp< =35 then no Update ,Exp> 35 and <=38 then 20% of salary ,Exp> 38 then 25% of salary**

Ans -

mysql> delimiter $$

mysql> create procedure update\_sal()

-> begin

-> declare sstop int default 0;

-> declare pename varchar(20);

-> declare peno int;

-> declare phiredate date;

-> declare exp int;

-> declare pjob varchar(20);

-> declare psal decimal(9,2);

-> declare salcur cursor for select empno,ename,sal,job,floor(datediff(curdate(),hiredate)/365)from emp;

-> declare continue handler for not found set sstop=1;

-> open salcur;

-> l1:loop

-> fetch salcur into peno,pename,psal,pjob,exp;

-> if sstop=1 then

-> leave l1;

-> end if;

-> if exp<=35 then

-> update emp

-> set sal=psal

-> where empno=peno;

-> elseif exp between 36 and 38 then

-> update emp

-> set sal=psal\*1.2

-> where empno=peno;

-> elseif exp>38 then

-> update emp

-> set sal=psal\*1.25

-> where empno=peno;

-> end if;

-> end loop;

-> close salcur;

-> end$$

Query OK, 0 rows affected (0.26 sec)

mysql> call update\_sal();

-> $$

Query OK, 0 rows affected (0.71 sec)

mysql> select \* from emp;

-> $$

+-------+--------+-----------+------+------------+---------+---------+--------+

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO |

+-------+--------+-----------+------+------------+---------+---------+--------+

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 1000.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 2000.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1562.50 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 3718.75 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1562.50 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 3562.50 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 3062.50 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3750.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 6250.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1875.00 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1375.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 1187.50 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3750.00 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1625.00 | NULL | 10 |

+-------+--------+-----------+------+------------+---------+---------+--------+

14 rows in set (0.00 sec)

**9] - Write a procedure and a function.**

Ans -

delimiter &&

create function exp1(phiredate datetime) returns int

begin

declare expr int ;

set expr = floor(datediff(curdate(),phiredate)/365);

return expr;

end &&

delimiter ;

Query OK, 0 rows affected (0.02 sec)

delimiter &&

create procedure allowance(peno int)

begin

declare add\_all decimal(9,2);

declare veno int;

declare vename varchar(20);

declare doj datetime;

declare exp int;

select empno,ename,hiredate,exp1(hiredate) into veno, vename,doj,exp from emp where empno=peno;

set add\_all = 3000\* exp;

insert into emp\_allowance values(veno,vename,doj,exp,add\_all);

end &&

delimiter ;

Query OK, 0 rows affected (0.02 sec)

mysql> create table emp\_allowance(empno int,ename varchar(20),hiredate date, experience int , allowance decimal(9,2));

Query OK, 0 rows affected (0.11 sec)

mysql> desc emp\_allowance;

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| empno | int | YES | | NULL | |

| ename | varchar(20) | YES | | NULL | |

| hiredate | date | YES | | NULL | |

| experience | int | YES | | NULL | |

| allowance | decimal(9,2) | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

5 rows in set (0.00 sec)

mysql> call allowance(7902);

Query OK, 1 row affected (0.02 sec)

mysql> select\* from emp\_allowance;

+-------+-------+------------+------------+-----------+

| empno | ename | hiredate | experience | allowance |

+-------+-------+------------+------------+-----------+

| 7902 | FORD | 1981-12-03 | 40 | 120000.00 |

+-------+-------+------------+------------+-----------+

1 row in set (0.00 sec)

**10] - Write a function to compute the following. Function should take sal and hiredate**

**as i/p and return the cost to company. DA = 15% Salary, HRA= 20% of Salary, TA= 8% of Salary.**

**Special Allowance will be decided based on the service in the company.**

**< 1 Year Nil >=1 Year< 2 Year 10% of Salary >=2 Year< 4 Year 20% of Salary >4 Year 30% of Salary**

Ans -

delimiter &&

create function ctc(sal decimal(9,0),hiredate datetime) returns int

begin

declare cost decimal(9,2) default 0;

declare spAllo decimal(9,2) ;

declare exp int ;

set exp=floor(datediff(curdate(),hiredate)/365);

if exp<1 then

set spAllo=0;

elseif exp>=1 and exp<2 then

set spAllo=0.1\*sal;

elseif exp>=2 and exp<4 then

set spAllo=0.2\*sal;

else

set spAllo=0.3\*sal;

end if;

set cost=0.43\*sal+sal+spAllo;

return cost;

end&&

delimiter ;

Query OK, 0 rows affected (0.31 sec)

mysql> select empno EMP\_NO,ename NAME,sal Base\_sal ,ctc(sal,hiredate) COST\_TO\_COMPANY from emp where empno=7369;

+--------+-------+----------+-----------------+

| EMP\_NO | NAME | Base\_sal | COST\_TO\_COMPANY |

+--------+-------+----------+-----------------+

| 7369 | SMITH | 1000.00 | 1730 |

+--------+-------+----------+-----------------+

1 row in set (0.00 sec)

**11] - Write query to display empno,ename,sal,cost to company for all employees(note:use function written in question 10)**

**Ans -**

mysql> select empno EMP\_NO,ename NAME,sal Base\_sal ,ctc(sal,hiredate) COST\_TO\_COMPANY from emp e

-> where empno =(select empno from emp m where m.empno=e.empno);

+--------+--------+----------+-----------------+

| EMP\_NO | NAME | Base\_sal | COST\_TO\_COMPANY |

+--------+--------+----------+-----------------+

| 7369 | SMITH | 1000.00 | 1730 |

| 7499 | ALLEN | 2000.00 | 3460 |

| 7521 | WARD | 1562.50 | 2704 |

| 7566 | JONES | 3718.75 | 6434 |

| 7654 | MARTIN | 1562.50 | 2704 |

| 7698 | BLAKE | 3562.50 | 6164 |

| 7782 | CLARK | 3062.50 | 5299 |

| 7788 | SCOTT | 3750.00 | 6488 |

| 7839 | KING | 6250.00 | 10813 |

| 7844 | TURNER | 1875.00 | 3244 |

| 7876 | ADAMS | 1375.00 | 2379 |

| 7900 | JAMES | 1187.50 | 2055 |

| 7902 | FORD | 3750.00 | 6488 |

| 7934 | MILLER | 1625.00 | 2811 |

+--------+--------+----------+-----------------+

14 rows in set, 6 warnings (0.07 sec)

**Q2. Write trigger**

**1]-WAT to store the old salary details in Emp\_Back(Emp\_Back has the same structure as emp table without any constraint)table.**

Ans -

mysql> create table emp\_back(empno int,ename varchar(20),oldsal decimal(9,2),newsal decimal(9,2));

Query OK, 0 rows affected (1.06 sec)

mysql> desc emp\_back;

+--------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+--------------+------+-----+---------+-------+

| empno | int | YES | | NULL | |

| ename | varchar(20) | YES | | NULL | |

| oldsal | decimal(9,2) | YES | | NULL | |

| newsal | decimal(9,2) | YES | | NULL | |

+--------+--------------+------+-----+---------+-------+

4 rows in set (0.20 sec)

mysql> delimiter &&

mysql> create trigger emp\_trig after update on emp for each row

-> begin

-> insert into emp\_back(empno,ename,oldsal,newsal) values(OLD.empno,OLD.ename,OLD.sal,NEW.sal);

-> end&&

Query OK, 0 rows affected (0.56 sec)

mysql> delimiter ;

mysql> call update\_sal;

Query OK, 0 rows affected (1.35 sec)

mysql> select\* from emp\_back;

+-------+--------+---------+---------+

| empno | ename | oldsal | newsal |

+-------+--------+---------+---------+

| 7369 | SMITH | 1000.00 | 1250.00 |

| 7499 | ALLEN | 2000.00 | 2500.00 |

| 7521 | WARD | 1562.50 | 1953.13 |

| 7566 | JONES | 3718.75 | 4648.44 |

| 7654 | MARTIN | 1562.50 | 1953.13 |

| 7698 | BLAKE | 3562.50 | 4453.13 |

| 7782 | CLARK | 3062.50 | 3828.13 |

| 7788 | SCOTT | 3750.00 | 4687.50 |

| 7839 | KING | 6250.00 | 7812.50 |

| 7844 | TURNER | 1875.00 | 2343.75 |

| 7876 | ADAMS | 1375.00 | 1718.75 |

| 7900 | JAMES | 1187.50 | 1484.38 |

| 7902 | FORD | 3750.00 | 4687.50 |

| 7934 | MILLER | 1625.00 | 2031.25 |

+-------+--------+---------+---------+

14 rows in set (0.00 sec)

**2] - Write a trigger which add entry in audit table when user tries to insert or delete records in employee table**

**store empno,name,username and date on which operation performed and which action is done insert or delete. in emp\_audit table.**

Ans -

mysql> create table emp\_audit(empno int,ename varchar(20),username varchar(20), chdate date,action varchar(20));

Query OK, 0 rows affected (0.34 sec)

mysql> desc emp\_audit;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| empno | int | YES | | NULL | |

| ename | varchar(20) | YES | | NULL | |

| username | varchar(20) | YES | | NULL | |

| chdate | date | YES | | NULL | |

| action | varchar(20) | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

5 rows in set (0.10 sec)

delimiter &&

create trigger emp\_audit\_trig after insert on emp for each row

begin

insert into emp\_audit values(NEW.empno,NEW.ename,current\_user(),now(),'After Insert');

end&&

Query OK, 0 rows affected (0.20 sec)

mysql> delimiter ;

delimiter &&

create trigger emp\_audit\_delete before delete on emp for each row

begin

insert into emp\_audit values(OLD.empno,OLD.ename,current\_user(),now(),'Before delete');

end&&

delimiter ;

mysql> insert into emp values(123,'RAM','PURCHASE',5555,'2021-01-05',25000,0,10);

Query OK, 1 row affected (0.12 sec)

mysql> delete from emp where empno=123;

Query OK, 1 row affected (0.12 sec)

mysql> select\* from emp\_audit;

+-------+-------+----------------+------------+---------------+

| empno | ename | username | chdate | action |

+-------+-------+----------------+------------+---------------+

| 123 | RAM | root@localhost | 2022-10-13 | After Insert |

| 123 | RAM | root@localhost | 2022-10-13 | Before delete |

| 123 | RAM | root@localhost | 2022-10-13 | After Insert |

| 123 | RAM | root@localhost | 2022-10-13 | Before delete |

+-------+-------+----------------+------------+---------------+

4 rows in set (0.00 sec)

**3] - Create table vehicle\_history. Write a trigger to store old vehicleprice and new vehicle price in history table**

**before you update price in vehicle table**

Ans -

mysql> create table vehicle\_history(vid int,vname varchar(20),old\_price decimal(9,2),new\_price decimal(9,2),chdate date,user varchar(20));

Query OK, 0 rows affected (0.77 sec)

mysql> desc vehicle\_history;

+-----------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+-------+

| vid | int | YES | | NULL | |

| vname | varchar(20) | YES | | NULL | |

| old\_price | decimal(9,2) | YES | | NULL | |

| new\_price | decimal(9,2) | YES | | NULL | |

| chdate | date | YES | | NULL | |

| user | varchar(20) | YES | | NULL | |

+-----------+--------------+------+-----+---------+-------+

6 rows in set (0.06 sec)

mysql> delimiter &&

mysql> create trigger vehicle\_price\_hist after update on vehicle for each row

-> begin

-> insert into vehicle\_history values(OLD.vid,OLD.vname,OLD.price,NEW.price,now(),current\_user());

-> end&&

Query OK, 0 rows affected (0.12 sec)

mysql> delimiter ;

mysql> select\* from vehicle;

+------+-----------+--------+-----------+---------+

| vid | vname | city | price | regfee |

+------+-----------+--------+-----------+---------+

| 1 | Hero | Pune | 49500.00 | 495.00 |

| 2 | Honda | Nagar | 79800.00 | 1197.00 |

| 3 | MotorBike | Mumbai | 105600.00 | 2112.00 |

| 4 | TVS | Nashik | 89700.00 | 1345.50 |

+------+-----------+--------+-----------+---------+

4 rows in set (0.05 sec)

mysql> update vehicle

-> set price=65000 where vid=1;

Query OK, 1 row affected (0.18 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> select\* from vehicle;

+------+-----------+--------+-----------+---------+

| vid | vname | city | price | regfee |

+------+-----------+--------+-----------+---------+

| 1 | Hero | Pune | 65000.00 | 495.00 |

| 2 | Honda | Nagar | 79800.00 | 1197.00 |

| 3 | MotorBike | Mumbai | 105600.00 | 2112.00 |

| 4 | TVS | Nashik | 89700.00 | 1345.50 |

+------+-----------+--------+-----------+---------+

4 rows in set (0.00 sec)

mysql> select\* from vehicle\_history;

+------+-------+-----------+-----------+------------+----------------+

| vid | vname | old\_price | new\_price | chdate | user |

+------+-------+-----------+-----------+------------+----------------+

| 1 | Hero | 49500.00 | 65000.00 | 2022-10-13 | root@localhost |

+------+-------+-----------+-----------+------------+----------------+

1 row in set (0.00 sec)