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)