Assignment 2

1. To find all managers with salary >1500

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)

2. list all employees with sal >1200 and < 2000

mysql> select \* from emp

-> where sal >1200 and sal <2000;

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

| 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)

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)

3. list all employees with sal is 1600 or sal is 800 or sal is 1900

mysql> select \* from emp

-> where sal in (1600,800,1900);

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

| 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 (0.04 sec)

4. list all employees with R at second last position in name

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 (0.05 sec)

1. List all employees with name starts with A and ends with N

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

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

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)

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

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)

1. list all employees with salary >1250 and < 3000

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)

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

mysql> select \* from emp

-> where sal in (3000,1250,2500);

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

| 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 (0.04 sec)

1. list all employee with name=SMITH

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)

6. list all employees with name starting with S

mysql> select \* from emp

-> where 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 (0.04 sec)

1. list all employees with name ending with S

mysql> select \* from emp

-> where ename like '%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)

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

mysql> select \* from emp

-> where ename like '\_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)

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

mysql> select \* from emp

-> where ename regexp '^A.\*L.\*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)

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

mysql> select \* from emp

-> where ename regexp '^A.B.\*P.$';

Empty set (0.00 sec)

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

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**

1. find max sal and min sal for each job----------1,2,34

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

-> from emp

-> group by job;

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

| max(sal) | min(sal) | job |

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

| 1300.00 | 800.00 | CLERK |

| 1600.00 | 1250.00 | SALESMAN |

| 2975.00 | 2450.00 | MANAGER |

| 3000.00 | 3000.00 | ANALYST |

| 5000.00 | 5000.00 | PRESIDENT |

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

5 rows in set (0.04 sec)

1. find how many employess have not received commission---------1234

mysql> select \* from emp

-> where comm is null or comm =0;

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

| 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 |

| 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)

1. find sum of sal of all employees working in dept no 10---------1,23

mysql> select deptno,sum(sal) from emp

-> where deptno =10;

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

| deptno | sum(sal) |

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

| 10 | 8750.00 |

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

1 row in set (0.00 sec)

1. find maximum salary,average sal for each job in every department-------123

mysql> select max(sal),min(sal),deptno,job from emp

-> group by job,deptno;

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

| max(sal) | min(sal) | deptno | job |

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

| 1100.00 | 800.00 | 20 | CLERK |

| 1600.00 | 1250.00 | 30 | SALESMAN |

| 2975.00 | 2975.00 | 20 | MANAGER |

| 2850.00 | 2850.00 | 30 | MANAGER |

| 2450.00 | 2450.00 | 10 | MANAGER |

| 3000.00 | 3000.00 | 20 | ANALYST |

| 5000.00 | 5000.00 | 10 | PRESIDENT |

| 950.00 | 950.00 | 30 | CLERK |

| 1300.00 | 1300.00 | 10 | CLERK |

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

9 rows in set (0.00 sec)

1. find max salary for every department if deptno is > 15 and arrange data in deptno order-------------12

mysql> select max(sal),deptno from emp

-> where deptno>15

-> group by deptno

-> order by deptno;

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

| max(sal) | deptno |

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

| 3000.00 | 20 |

| 2850.00 | 30 |

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

2 rows in set (0.00 sec)

1. find sum salary for every department if sum is > 3000-----------12

mysql> select sum(sal)Total,deptno

-> from emp

-> group by deptno

-> having Total>3000;

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

| Total | deptno |

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

| 10875.00 | 20 |

| 9400.00 | 30 |

| 8750.00 | 10 |

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

3 rows in set (0.04 sec)

1. list all department which has minimum 5 employees----------123

mysql> select deptno,count(\*)

-> from emp

-> group by deptno

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

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

| deptno | count(\*) |

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

| 20 | 5 |

| 30 | 6 |

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

2 rows in set (0.00 sec)

19. count how many employees earn salary more than 2000 in each job------------1

mysql> select job,count(empno)

-> from emp

-> where sal>2000

-> group by job;

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

| job | count(empno) |

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

| MANAGER | 3 |

| ANALYST | 2 |

| PRESIDENT | 1 |

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

3 rows in set (0.01 sec)

20.list all enames and jobs in small case letter--------------1

mysql> select lower(ename) ENAME, lower(job) JOB

-> from emp;

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

| ENAME | JOB |

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

| 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 (0.01 sec)