Database Assignment 2

Use Emp, dept and salgrade table

```
mysql> select * from emp;
+-------+--------+-----------+------+------------+---------+---------+--------+
| 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)
```

```
mysql> select * from dept;
+--------+------------+----------+
| DEPTNO | dname      | loc      |
+--------+------------+----------+
|     10 | RND        | NEW YORK |
|     20 | DataEngg   | DALLAS   |
|     30 | Sales      | CHICAGO  |
|     40 | OPERATIONS | BOSTON   |
+--------+------------+----------+
4 rows in set (0.00 sec)
```

```
mysql> select * from salgrade;
+-------+-------+-------+
| GRADE | LOSAL | HISAL |
+-------+-------+-------+
|     1 |   700 |  1200 |
|     2 |  1201 |  1400 |
|     3 |  1401 |  2000 |
|     4 |  2001 |  3000 |
|     5 |  3001 |  9999 |
|     1 |   700 |  1200 |
|     2 |  1201 |  1400 |
|     3 |  1401 |  2000 |
|     4 |  2001 |  3000 |
|     5 |  3001 |  9999 |
|     1 |   700 |  1200 |
|     2 |  1201 |  1400 |
|     3 |  1401 |  2000 |
|     4 |  2001 |  3000 |
|     5 |  3001 |  9999 |
+-------+-------+-------+
15 rows in set (0.03 sec)
```

1. To list all records with sal > 2000 and comm>200

```
mysql> select * from emp;
+-------+--------+-----------+------+------------+---------+---------+--------+
| 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)

mysql> select * from emp where sal>2000 and comm>200;
Empty set (0.00 sec)
```

2. To list all record with job='Clerk' or sal>2000

```
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)

mysql>
```

3. To list all the record with sal=1250 or 1100 or 2850

```
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that cor
mysql> select * from emp where sal in (1250,1100,2850);
+-------+--------+----------+------+------------+---------+---------+--------+
| 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)
```

4. To list all employees with sal>1250 and <2850

```
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)
```

5. To list all employees with name ends with AS

```
mysql> select * from emp where ename regexp 'as$';
Empty set (0.01 sec)

mysql> select * from emp where ename regexp 'es$';
+-------+-------+---------+------+------------+---------+------+--------+
| EMPNO | ENAME | JOB     | MGR  | HIREDATE   | SAL     | COMM | DEPTNO |
+-------+-------+---------+------+------------+---------+------+--------+
|  7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL |     20 |
|  7900 | JAMES | CLERK   | 7698 | 1981-12-03 |  950.00 | NULL |     30 |
+-------+-------+---------+------+------------+---------+------+--------+
```

6. To list all employees with job starts with C and ends with K

```
mysql> select * from emp where job between 'L' and 'K';
Empty set (0.00 sec)

mysql> select * from emp where job between 'L' and 'K';
Empty set (0.00 sec)

mysql> select * from emp where job between 'C' and '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)
```

6. To list all employees with job contains L at third position
   and M at third last position.

```
mysql> select * from emp where job regexp '^..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)

mysql>
```

7. To list all the record with sal not equal to 1250 or 1100 or
2850

```
mysql> select * from emp where sal not in(1250,100,2850);
+-------+--------+-----------+------+------------+---------+--------+--------+
| 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)

mysql>
```

9. To list all employees with sal not >1250 and <2850

```
mysql> select * from emp where sal not between 1250 and 2850;
+-------+-------+-----------+------+------------+---------+------+--------+
| 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 |
|  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 |
+-------+-------+-----------+------+------------+---------+------+--------+
7 rows in set (0.00 sec)
```

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

```
mysql> select * from emp where job regexp '^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)
```

11. To list all rows with comm is null

```
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)
```

12. To list all employees with sal is null and name starts with 'S'

```
mysql> select * from emp where ename regexp '^s'and comm is null;
+-------+-------+---------+------+------------+---------+------+--------+
| 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)
```

```
mysql> select * from emp where comm is null and  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)

mysql> select * from emp where comm is null and  ename='S';
Empty set (0.00 sec)

mysql> select * from emp where comm is null and  ename>'r';
+-------+-------+---------+------+------------+---------+------+--------+
| 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)

mysql> select * from emp where sal is null and  ename>'r';
Empty set (0.00 sec)
```

13. To list all employees with job contains 5 characters

```
mysql> select * from emp where job regexp '^.....$';
+-------+--------+-------+------+------------+---------+------+--------+
| 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)
```

14. To list all employees with name contain 'A' at 1 position and job Contains 5 characters

```
  '> ^C
mysql> select * from emp where ename regexp '^A'and job regexp '^.....$';
+-------+-------+-------+------+------------+---------+------+--------+
| 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)

mysql>
```

```
mysql> select * from emp where ename regexp '^A'and job regexp '^.{5}$';
+-------+-------+-------+------+------------+---------+------+--------+
| 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)
```