DBT Assignment 1

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1. Select all information from Salgrade table.

```
mysql> desc salgrade;
+--------+------+------+-----+---------+-------+
| Field  | Type | Null | Key | Default | Extra |
+--------+------+------+-----+---------+-------+
| grade  | int  | YES  |     | NULL    |       |
| losal  | int  | YES  |     | NULL    |       |
| hisal  | int  | YES  |     | NULL    |       |
+--------+------+------+-----+---------+-------+
3 rows in set (0.02 sec)

mysql> select * from salgrade;
+--------+--------+--------+
| grade  | losal  | hisal  |
+--------+--------+--------+
|     1  |   700  |  1200  |
|     2  |  1201  |  1400  |
|     3  |  1401  |  2000  |
|     4  |  2001  |  3000  |
|     5  |  3001  |  9999  |
+--------+--------+--------+
5 rows in set (0.00 sec)

mysql>
```

2. Select all information from emp table.

```
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    |       |
| comm    | decimal(7,2) | YES  |     | NULL    |       |
| deptno  | int          | YES  | MUL | NULL    |       |
+---------+--------------+------+-----+---------+-------+
8 rows in set (0.01 sec)

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 | 1981-02-21 | 1250.00 |  500.00 |     30 |
|  7566 | JONES  | MANAGER   | 7839 | 1981-04-02 | 2975.00 |    NULL |     20 |
|  7654 | MARTIN | SALESMAN  | 7698 | 1981-09-08 | 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 | 1987-07-13 | 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 | 1987-07-12 | 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 (0.01 sec)
```

3. Select all information from dept table.

```
mysql> desc dept;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| deptno | int         | NO   | PRI | NULL    |       |
| dname  | varchar(14) | YES  |     | NULL    |       |
| loc    | varchar(13) | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
3 rows in set (0.01 sec)

mysql> select * from dept;
+--------+------------+----------+
| deptno | dname      | loc      |
+--------+------------+----------+
|     10 | ACCOUNTING | NEW YORK |
|     20 | RESEARCH   | DALLAS   |
|     30 | SALES      | CHICAGO  |
|     40 | OPERATIONS | BOSTON   |
+--------+------------+----------+
4 rows in set (0.00 sec)
```

4. List all employees who have a salary between 1000 and 2000.

```
mysql> select * from emp where sal between 1000 and 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 | 1981-02-21 | 1250.00 |  500.00 |     30 |
|  7654 | MARTIN | SALESMAN | 7698 | 1981-09-08 | 1250.00 | 1400.00 |     30 |
|  7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 |    0.00 |     30 |
|  7876 | ADAMS  | CLERK    | 7788 | 1987-07-12 | 1100.00 |    NULL |     20 |
|  7934 | MILLER | CLERK    | 7782 | 1982-01-23 | 1300.00 |    NULL |     10 |
+-------+--------+----------+------+------------+---------+---------+--------+
6 rows in set (0.01 sec)
```

5. List department numbers and names in department name order.

```
mysql> select * from dept order by dname;
+--------+------------+----------+
| deptno | dname      | loc      |
+--------+------------+----------+
|     10 | ACCOUNTING | NEW YORK |
|     40 | OPERATIONS | BOSTON   |
|     20 | RESEARCH   | DALLAS   |
|     30 | SALES      | CHICAGO  |
+--------+------------+----------+
4 rows in set (0.00 sec)
```

6. Display all the different job types.

```
mysql> select job from emp;
+-----------+
| job       |
+-----------+
| CLERK     |
| SALESMAN  |
| SALESMAN  |
| MANAGER   |
| SALESMAN  |
| MANAGER   |
| MANAGER   |
| ANALYST   |
| PRESIDENT |
| SALESMAN  |
| CLERK     |
| CLERK     |
| ANALYST   |
| CLERK     |
+-----------+
14 rows in set (0.00 sec)
```

7. List the details of the employees in departments 10 and 20 in

alphabetical order of employee names.

```
mysql> select * from emp where deptno = 10 or deptno= 20 order by ename;
+-------+--------+-----------+------+------------+---------+------+--------+
| empno | ename  | job       | mgr  | hiredate   | sal     | comm | deptno |
+-------+--------+-----------+------+------------+---------+------+--------+
|  7876 | ADAMS  | CLERK     | 7788 | 1987-07-12 | 1100.00 | NULL |     20 |
|  7782 | CLARK  | MANAGER   | 7839 | 1981-06-09 | 2450.00 | NULL |     10 |
|  7902 | FORD   | ANALYST   | 7566 | 1981-12-03 | 3000.00 | NULL |     20 |
|  7566 | JONES  | MANAGER   | 7839 | 1981-04-02 | 2975.00 | NULL |     20 |
|  7839 | KING   | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL |     10 |
|  7934 | MILLER | CLERK     | 7782 | 1982-01-23 | 1300.00 | NULL |     10 |
|  7788 | SCOTT  | ANALYST   | 7566 | 1987-07-13 | 3000.00 | NULL |     20 |
|  7369 | SMITH  | CLERK     | 7902 | 1980-12-17 |  800.00 | NULL |     20 |
+-------+--------+-----------+------+------------+---------+------+--------+
8 rows in set (0.01 sec)
```

8. List names and jobs of all clerks in department 20.

```
mysql> select ename, job from emp where deptno =20 and job ='CLERK';
+-------+-------+
| ename | job   |
+-------+-------+
| SMITH | CLERK |
| ADAMS | CLERK |
+-------+-------+
2 rows in set (0.00 sec)
```

9. Display all employee names which have TH or LL in them.

```
mysql> select ename from emp where instr (ename,'TH') or instr (ename,'LL');
+--------+
| ename  |
+--------+
| SMITH  |
| ALLEN  |
| MILLER |
+--------+
3 rows in set (0.01 sec)
```

10.List the details of the employees who have a manager.

```
mysql> select * from emp where job = 'MANAGER';
+-------+-------+---------+------+------------+---------+------+--------+
| 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)
```

11.Display the name and the total remuneration for all employees.

```
mysql> select ename, sal+ifnull(comm,0) "Total_Remuneration" from emp;
+--------+--------------------+
| ename  | Total_Remuneration |
+--------+--------------------+
| SMITH  |             800.00 |
| ALLEN  |            1900.00 |
| WARD   |            1750.00 |
| JONES  |            2975.00 |
| MARTIN |            2650.00 |
| BLAKE  |            2850.00 |
| CLARK  |            2450.00 |
| SCOTT  |            3000.00 |
| KING   |            5000.00 |
| TURNER |            1500.00 |
| ADAMS  |            1100.00 |
| JAMES  |             950.00 |
| FORD   |            3000.00 |
| MILLER |            1300.00 |
+--------+--------------------+
14 rows in set (0.00 sec)
```

12.Display name, annual salary and commission of all sales people

whose monthly salary is greater than their commission. The output

should be ordered by salary highest first. If two or more employees

have the same salary sort by employee name, within the highest

salary order.

```
mysql> select ename, sal * 12 as "annual_salary", comm from emp where job ='SALESMAN' AND (sal*12 > comm) order by annual_salary desc;
+--------+---------------+---------+
| ename  | annual_salary | comm    |
+--------+---------------+---------+
| ALLEN  |      19200.00 |  300.00 |
| TURNER |      18000.00 |    0.00 |
| WARD   |      15000.00 |  500.00 |
| MARTIN |      15000.00 | 1400.00 |
+--------+---------------+---------+
4 rows in set (0.02 sec)
```

13.Display all employees who were hired during 1982.

```
mysql> select
    -> * from emp where year(hiredate) =1982;
+-------+--------+-------+------+------------+---------+------+--------+
| empno | ename  | job   | mgr  | hiredate   | sal     | comm | deptno |
+-------+--------+-------+------+------------+---------+------+--------+
|  7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL |     10 |
+-------+--------+-------+------+------------+---------+------+--------+
1 row in set (0.01 sec)
```

14.Display the employee name and job by concatenating them and

give an appropriate heading.

```
mysql> SELECT CONCAT(ename, ' is a ', job) AS 'Employee Details'
    -> FROM emp;
+---------------------+
| Employee Details    |
+---------------------+
| SMITH is a CLERK    |
| ALLEN is a SALESMAN |
| WARD is a SALESMAN  |
| JONES is a MANAGER  |
| MARTIN is a SALESMAN |
| BLAKE is a MANAGER  |
| CLARK is a MANAGER  |
| SCOTT is a ANALYST  |
| KING is a PRESIDENT |
| TURNER is a SALESMAN |
| ADAMS is a CLERK    |
| JAMES is a CLERK    |
| FORD is a ANALYST   |
| MILLER is a CLERK   |
+---------------------+
14 rows in set (0.12 sec)
```

15.Display the employee name and the job in brackets.

```
mysql> SELECT CONCAT(ename, ' (', job, ')') AS 'Employee Info'
    -> FROM emp;
+---------------------+
| Employee Info       |
+---------------------+
| 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)
```

16.It has been discovered that the sales people in department 30 are

not all male. Hence display the job of salesman as salesperson.

```
mysql> SELECT ename,
    ->         CASE
    ->             WHEN deptno = 30 AND job = 'SALESMAN' THEN 'SALESPERSON'
    ->             ELSE job
    ->         END AS job_title
    -> FROM emp;
+--------+-------------+
| ename  | job_title   |
+--------+-------------+
| SMITH  | CLERK       |
| ALLEN  | SALESPERSON |
| WARD   | SALESPERSON |
| JONES  | MANAGER     |
| MARTIN | SALESPERSON |
| BLAKE  | MANAGER     |
| CLARK  | MANAGER     |
| SCOTT  | ANALYST     |
| KING   | PRESIDENT   |
| TURNER | SALESPERSON |
| ADAMS  | CLERK       |
| JAMES  | CLERK       |
| FORD   | ANALYST     |
| MILLER | CLERK       |
+--------+-------------+
14 rows in set (0.01 sec)
```