Assignment 2

Create a Database name entri_assignment

Create a Table with name `departments`

`Department_id (pk)  Department_name  Location_id`

```
mysql> DESCRIBE DEPARTMENTS;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| Department_id   | int          | NO   | PRI | NULL    |       |
| Department_name | varchar(100) | NO   |     | NULL    |       |
| Location_id     | int          | NO   |     | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

Create a Table with name `employees`

`Employee_id  (pk)  ,first_name,last_name ,email,phone_number,hire_date,`

`job_id, salary, commission_pct, manager_id, department_id (fk reference`

```
mysql> DESCRIBE EMPLOYEES;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| Employee_id   | int         | NO   | PRI | NULL    |       |
| first_name    | varchar(25) | NO   |     | NULL    |       |
| last_name     | varchar(25) | NO   |     | NULL    |       |
| email         | varchar(50) | YES  |     | NULL    |       |
| phone_number  | varchar(20) | YES  |     | NULL    |       |
| hire_date     | date        | YES  |     | NULL    |       |
| job_id        | varchar(10) | YES  |     | NULL    |       |
| salary        | int         | YES  |     | NULL    |       |
| commission_pct | float(4,2)  | YES  |     | NULL    |       |
| manager_id    | int         | YES  |     | NULL    |       |
| department_id | int         | YES  | MUL | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
11 rows in set (0.01 sec)
```

```
## Insert into Departments table
 INSERT INTO departments VALUES ( 170 , 'Payroll' , 1700);
```

```
mysql> SELECT * FROM DEPARTMENTS;
+---------------+-----------------+-------------+
| Department_id | Department_name | Location_id |
+---------------+-----------------+-------------+
|           170 | Payroll         |        1700 |
+---------------+-----------------+-------------+
1 row in set (0.06 sec)
```

```
## Insert into Employees table
```

```
; INSERT INTO employees VALUES (101, 'Neena' , 'Kochhar' , 'NKOCHHAR'
, '515.123.4568' , '1989-11-21' , 'AD_VP' , 17000 , NULL , 100 , 20);

INSERT INTO employees VALUES (102 , 'Lex' , 'De Haan' , 'LDEHAAN' ,
'515.123.4569' , '1993-09-12' , 'AD_VP' , 17000 , NULL , 100 , 30);

INSERT INTO employees VALUES (104 , 'Bruce' , 'Ernst' , 'BERNST' ,
'590.423.4568' , '1991-05-21',  'IT_PROG' , 6000 , NULL , 103 , 60);

INSERT INTO employees VALUES (105 , 'David' , 'Austin' , 'DAUSTIN' ,
'590.423.4569' , '1997-06-25',  'IT_PROG' , 4800 , NULL , 103 , 60);

INSERT INTO employees VALUES (106 , 'Valli' , 'Pataballa' ,
'VPATABAL' , '590.423.4560' , '1998-02-05',  'IT_PROG' , 4800 , NULL
, 103 , 40);

INSERT INTO employees VALUES (107 , 'Diana' , 'Lorentz' , 'DLORENTZ'
, '590.423.5567' , '1999-02-09',  'IT_PROG' , 4200 , NULL , 103 ,
40);

INSERT INTO employees VALUES (108 , 'Nancy' , 'Greenberg' ,
'NGREENBE' , '515.124.4569' , '1994-08-17',  'FI_MGR' , 12000 , NULL
, 101 , 100);

INSERT INTO employees VALUES (109 , 'Daniel' , 'Faviet' , 'DFAVIET' ,
'515.124.4169' , '1994-08-12',  'FI_ACCOUNT' , 9000 , NULL , 108 ,
170);

INSERT INTO employees VALUES (110 , 'John' , 'Chen' , 'JCHEN' ,
'515.124.4269' , '1997-04-09',  'FI_ACCOUNT' , 8200 , NULL , 108 ,
170);
```

```
INSERT INTO employees VALUES (111 , 'Ismael' , 'Sciarra' , 'ISCIARRA'
, '515.124.4369' , '1997-02-01',  'FI_ACCOUNT' , 7700 , NULL , 108 ,
160);

INSERT INTO employees VALUES (112 , 'Jose Manuel' , 'Urman' ,
'JMURMAN' , '515.124.4469' , '1998-06-03', 'FI_ACCOUNT' , 7800 , NULL
8 , 150);

INSERT INTO employees VALUES (114 , 'Den' , 'Raphaely' , 'DRAPHEAL' ,
'515.127.4561' , '1994-11-08',  'PU_MAN' , 11000 , NULL , 100 , 30);

INSERT INTO employees VALUES (115 , 'Alexander' , 'Khoo' , 'AKHOO' ,
'515.127.4562' , '1995-05-12',  'PU_CLERK' , 3100 , NULL , 114 , 80);

INSERT INTO employees VALUES (116 , 'Shelli' , 'Baida' , 'SBAIDA' ,
'515.127.4563' ,'1997-12-13', 'PU_CLERK' , 2900 , NULL , 114 , 70);

INSERT INTO employees VALUES (117 , 'Sigal' , 'Tobias' , 'STOBIAS' ,
'515.127.4564' , '1997-09-10', 'PU_CLERK' , 2800 , NULL , 114 , 30);

INSERT INTO employees VALUES (118 , 'Guy' , 'Himuro' , 'GHIMURO' ,
'515.127.4565' , '1998-01-02',  'PU_CLERK' , 2600 , NULL , 114 , 60);

INSERT INTO employees VALUES (119 , 'Karen' , 'Colmenares' ,
'KCOLMENA' , '515.127.4566' , '1999-04-08',  'PU_CLERK' , 2500 , NULL
, 114 , 130);

INSERT INTO employees VALUES (120 , 'Matthew' , 'Weiss' , 'MWEISS' ,
'650.123.1234' ,'1996-07-18',  'ST_MAN' , 8000 , NULL , 100 , 50);

INSERT INTO employees VALUES (122 , 'Payam' , 'Kaufling' , 'PKAUFLIN'
, '650.123.3234' ,'1995-05-01',  'ST_MAN' , 7900 , NULL , 100 , 40);
```

```
INSERT INTO employees VALUES (123 , 'Shanta' , 'Vollman' , 'SVOLLMAN'
, '650.123.4234' , '1997-10-12',  'ST_MAN' , 6500 , NULL , 100 , 50);

INSERT INTO employees VALUES (124, 'Kevin' , 'Mourgos' , 'KMOURGOS' ,
'650.123.5234' , '1999-11-12',  'ST_MAN' , 5800 , NULL , 100 , 80);

INSERT INTO employees VALUES (125, 'Julia' , 'Nayer' , 'JNAYER' ,
'650.124.1214' , '1997-07-02',  'ST_CLERK' , 3200 , NULL , 120 , 50);

INSERT INTO employees VALUES (126, 'Irene' , 'Mikkilineni' ,
'IMIKKILI' , '650.124.1224' , '1998-11-12', 'ST_CLERK' , 2700 , NULL
, 120 , 50);

INSERT INTO employees VALUES (127, 'James' , 'Landry' , 'JLANDRY' ,
'650.124.1334' , '1999-01-02' , 'ST_CLERK' , 2400 , NULL , 120 , 90);

INSERT INTO employees VALUES (128, 'Steven' , 'Markle' , 'SMARKLE' ,
'650.124.1434' , '2000-03-04' , 'ST_CLERK' , 2200 , NULL , 120 , 50);

INSERT INTO employees VALUES (130, 'Mozhe' , 'Atkinson' , 'MATKINSO'
, '650.124.6234' , '1997-10-12' , 'ST_CLERK' , 2800 , NULL , 121 ,
110);
```

```
mysql> SELECT * FROM EMPLOYEES;
+-------------+------------+------------+----------+--------------+------------+------------+--------+----------------+------------+---------------+
| Employee_id | first_name | last_name  | email    | phone_number | hire_date  | job_id     | salary | commission_pct | manager_id | department_id |
+-------------+------------+------------+----------+--------------+------------+------------+--------+----------------+------------+---------------+
|         101 | Neena      | Kochhar    | NKOCHHAR | 515.123.4568 | 1989-11-21 | AD_VP      |  17000 |           NULL |        100 |            20 |
|         102 | Lex        | De Haan    | LDEHAAN  | 515.123.4569 | 1993-09-12 | AD_VP      |  17000 |           NULL |        100 |            30 |
|         104 | Bruce      | Ernst      | BERNST   | 590.423.4568 | 1991-05-21 | IT_PROG    |   6000 |           NULL |        103 |            60 |
|         105 | David      | Austin     | DAUSTIN  | 590.423.4569 | 1997-06-25 | IT_PROG    |   4800 |           NULL |        103 |            60 |
|         106 | Valli      | Pataballa  | VPATABAL | 590.423.4560 | 1998-02-05 | IT_PROG    |   4800 |           NULL |        103 |            40 |
|         107 | Diana      | Lorentz    | DLORENTZ | 590.423.5567 | 1999-02-09 | IT_PROG    |   4200 |           NULL |        103 |            40 |
|         108 | Nancy      | Greenberg  | NGREENBE | 515.124.4569 | 1994-08-17 | FI_MGR     |  12000 |           NULL |        101 |           100 |
|         109 | Daniel     | Faviet     | DFAVIET  | 515.124.4169 | 1994-08-12 | FI_ACCOUNT |   9000 |           NULL |        108 |           170 |
|         110 | John       | Chen       | JCHEN    | 515.124.4269 | 1997-04-09 | FI_ACCOUNT |   8200 |           NULL |        108 |           170 |
|         111 | Ismael     | Sciarra    | ISCIARRA | 515.124.4369 | 1997-02-01 | FI_ACCOUNT |   7700 |           NULL |        108 |           160 |
|         112 | Jose Manuel | Urman     | JMURMAN  | 515.124.4469 | 1998-06-03 | FI_ACCOUNT |   7800 |           NULL |          8 |           150 |
|         114 | Den        | Raphaely   | DRAPHEAL | 515.127.4561 | 1994-11-08 | PU_MAN     |  11000 |           NULL |        100 |            30 |
|         115 | Alexander  | Khoo       | AKHOO    | 515.127.4562 | 1995-05-12 | PU_CLERK   |   3100 |           NULL |        114 |            80 |
|         116 | Shelli     | Baida      | SBAIDA   | 515.127.4563 | 1997-12-13 | PU_CLERK   |   2900 |           NULL |        114 |            70 |
|         117 | Sigal      | Tobias     | STOBIAS  | 515.127.4564 | 1997-09-10 | PU_CLERK   |   2800 |           NULL |        114 |            30 |
|         118 | Guy        | Himuro     | GHIMURO  | 515.127.4565 | 1998-01-02 | PU_CLERK   |   2600 |           NULL |        114 |            60 |
|         119 | Karen      | Colmenares | KCOLMENA | 515.127.4566 | 1999-04-08 | PU_CLERK   |   2500 |           NULL |        114 |           130 |
|         120 | Matthew    | Weiss      | MWEISS   | 650.123.1234 | 1996-07-18 | ST_MAN     |   8000 |           NULL |        100 |            50 |
|         122 | Payam      | Kaufling   | PKAUFLIN | 650.123.3234 | 1995-05-01 | ST_MAN     |   7900 |           NULL |        100 |            40 |
|         123 | Shanta     | Vollman    | SVOLLMAN | 650.123.4234 | 1997-10-12 | ST_MAN     |   6500 |           NULL |        100 |            50 |
|         124 | Kevin      | Mourgos    | KMOURGOS | 650.123.5234 | 1999-11-12 | ST_MAN     |   5800 |           NULL |        100 |            80 |
|         125 | Julia      | Nayer      | JNAYER   | 650.124.1214 | 1997-07-02 | ST_CLERK   |   3200 |           NULL |        120 |            50 |
|         126 | Irene      | Mikkilineni | IMIKKILI | 650.124.1224 | 1998-11-12 | ST_CLERK   |   2700 |           NULL |        120 |            50 |
|         127 | James      | Landry     | JLANDRY  | 650.124.1334 | 1999-01-02 | ST_CLERK   |   2400 |           NULL |        120 |            90 |
|         128 | Steven     | Markle     | SMARKLE  | 650.124.1434 | 2000-03-04 | ST_CLERK   |   2200 |           NULL |        120 |            50 |
|         130 | Mozhe      | Atkinson   | MATKINSO | 650.124.6234 | 1997-10-12 | ST_CLERK   |   2800 |           NULL |        121 |           110 |
+-------------+------------+------------+----------+--------------+------------+------------+--------+----------------+------------+---------------+
26 rows in set (0.00 sec)
```

Solve SQL Exercises

1. Select employees first name, last name, job_id and salary whose first name starts with alphabet S

```
mysql> SELECT first_name, last_name, job_id, salary FROM EMPLOYEES WHERE first_name LIKE 'S%' ORDER BY first_name;
+------------+-----------+----------+--------+
| first_name | last_name | job_id   | salary |
+------------+-----------+----------+--------+
| Shanta     | Vollman   | ST_MAN   |   6500 |
| Shelli     | Baida     | PU_CLERK |   2900 |
| Sigal      | Tobias    | PU_CLERK |   2800 |
| Steven     | Markle    | ST_CLERK |   2200 |
+------------+-----------+----------+--------+
4 rows in set (0.01 sec)
```

2. Write a query to select employee with the highest salary (using an inner query)

```
mysql>
mysql> SELECT * FROM EMPLOYEES WHERE SALARY=(SELECT MAX(SALARY) FROM EMPLOYEES) ;
+-------------+------------+-----------+----------+--------------+------------+--------+--------+----------------+------------+---------------+
| Employee_id | first_name | last_name | email    | phone_number | hire_date  | job_id | salary | commission_pct | manager_id | department_id |
+-------------+------------+-----------+----------+--------------+------------+--------+--------+----------------+------------+---------------+
|         101 | Neena      | Kochhar   | NKOCHHAR | 515.123.4568 | 1989-11-21 | AD_VP  |  17000 |           NULL |        100 |            20 |
|         102 | Lex        | De Haan   | LDEHAAN  | 515.123.4569 | 1993-09-12 | AD_VP  |  17000 |           NULL |        100 |            30 |
+-------------+------------+-----------+----------+--------------+------------+--------+--------+----------------+------------+---------------+
2 rows in set (0.01 sec)
```

3. Select employee with the second highest salary

```
mysql>
mysql> SELECT * FROM EMPLOYEES WHERE SALARY=(SELECT DISTINCT SALARY FROM EMPLOYEES ORDER BY SALARY DESC LIMIT 1,1);
+-------------+------------+-----------+----------+--------------+------------+--------+--------+----------------+------------+---------------+
| Employee_id | first_name | last_name | email    | phone_number | hire_date  | job_id | salary | commission_pct | manager_id | department_id |
+-------------+------------+-----------+----------+--------------+------------+--------+--------+----------------+------------+---------------+
|         108 | Nancy      | Greenberg | NGREENBE | 515.124.4569 | 1994-08-17 | FI_MGR |  12000 |           NULL |        101 |           100 |
+-------------+------------+-----------+----------+--------------+------------+--------+--------+----------------+------------+---------------+
1 row in set (0.00 sec)
```

4. Write a query to select employees and their corresponding managers and their salaries

```
mysql>
mysql> SELECT
    -> concat(e.first_name,' ',e.last_name) as Employee,
    -> e.salary as Employee_salary,
    -> concat(m.first_name,' ',m.last_name) Manager,
    -> m.salary as Manager_salary
    -> FROM employees e
    -> LEFT JOIN employees m
    -> ON e.manager_id = m.Employee_id;
+-------------------+-----------------+-----------------+----------------+
| Employee          | Employee_salary | Manager         | Manager_salary |
+-------------------+-----------------+-----------------+----------------+
| Neena Kochhar     |           17000 | NULL            |           NULL |
| Lex De Haan       |           17000 | NULL            |           NULL |
| Bruce Ernst       |            6000 | NULL            |           NULL |
| David Austin      |            4800 | NULL            |           NULL |
| Valli Pataballa   |            4800 | NULL            |           NULL |
| Diana Lorentz     |            4200 | NULL            |           NULL |
| Nancy Greenberg   |           12000 | Neena Kochhar   |          17000 |
| Daniel Faviet     |            9000 | Nancy Greenberg |          12000 |
| John Chen         |            8200 | Nancy Greenberg |          12000 |
| Ismael Sciarra    |            7700 | Nancy Greenberg |          12000 |
| Jose Manuel Urman |            7800 | Nancy Greenberg |          12000 |
| Den Raphaely      |           11000 | NULL            |           NULL |
| Alexander Khoo    |            3100 | Den Raphaely    |          11000 |
| Shelli Baida      |            2900 | Den Raphaely    |          11000 |
| Sigal Tobias      |            2800 | Den Raphaely    |          11000 |
| Guy Himuro        |            2600 | Den Raphaely    |          11000 |
| Karen Colmenares  |            2500 | Den Raphaely    |          11000 |
| Matthew Weiss     |            8000 | NULL            |           NULL |
| Payam Kaufling    |            7900 | NULL            |           NULL |
| Shanta Vollman    |            6500 | NULL            |           NULL |
| Kevin Mourgos     |            5800 | NULL            |           NULL |
| Julia Nayer       |            3200 | Matthew Weiss   |           8000 |
| Irene Mikkilineni |            2700 | Matthew Weiss   |           8000 |
| James Landry      |            2400 | Matthew Weiss   |           8000 |
| Steven Markle     |            2200 | Matthew Weiss   |           8000 |
| Mozhe Atkinson    |            2800 | NULL            |           NULL |
+-------------------+-----------------+-----------------+----------------+
26 rows in set (0.05 sec)
```

5. Write a query to select employees and their corresponding managers and their salaries (SELF Join)

```
mysql> SELECT
    -> concat(e.first_name,' ',e.last_name) as Employee,
    -> e.salary as Employee_salary,
    -> concat(m.first_name,' ',m.last_name) Manager,
    -> m.salary as Manager_salary
    -> FROM employees e
    -> INNER JOIN employees m
    -> ON e.manager_id = m.Employee_id
    -> order by Manager;
+------------------+-----------------+-----------------+----------------+
| Employee         | Employee_salary | Manager         | Manager_salary |
+------------------+-----------------+-----------------+----------------+
| Alexander Khoo   |            3100 | Den Raphaely    |          11000 |
| Shelli Baida     |            2900 | Den Raphaely    |          11000 |
| Sigal Tobias     |            2800 | Den Raphaely    |          11000 |
| Guy Himuro       |            2600 | Den Raphaely    |          11000 |
| Karen Colmenares |            2500 | Den Raphaely    |          11000 |
| Julia Nayer      |            3200 | Matthew Weiss   |           8000 |
| Irene Mikkilineni|            2700 | Matthew Weiss   |           8000 |
| James Landry     |            2400 | Matthew Weiss   |           8000 |
| Steven Markle    |            2200 | Matthew Weiss   |           8000 |
| Daniel Faviet    |            9000 | Nancy Greenberg |          12000 |
| John Chen        |            8200 | Nancy Greenberg |          12000 |
| Ismael Sciarra   |            7700 | Nancy Greenberg |          12000 |
| Jose Manuel Urman|            7800 | Nancy Greenberg |          12000 |
| Nancy Greenberg  |           12000 | Neena Kochhar   |          17000 |
+------------------+-----------------+-----------------+----------------+
14 rows in set (0.00 sec)
```

6. Create a view for the above query

```
mysql> CREATE VIEW EMPLOYEE_MANAGER_DETAILS AS
    -> SELECT
    -> concat(e.first_name,' ',e.last_name) as Employee,
    -> e.salary as Employee_salary,
    -> concat(m.first_name,' ',m.last_name) Manager,
    -> m.salary as Manager_salary
    -> FROM employees e
    -> INNER JOIN employees m
    -> ON e.manager_id = m.Employee_id
    -> order by Manager;
```

```
mysql>  SHOW FULL TABLES;
+-----------------------------+------------+
| Tables_in_entri_assignment | Table_type |
+-----------------------------+------------+
| departments                 | BASE TABLE |
| employee_manager_details    | VIEW       |
| employees                   | BASE TABLE |
+-----------------------------+------------+
3 rows in set (0.00 sec)
```

7. Write a query to show the count of employees under each manager in descending order (from view)

```
mysql> SELECT Manager, Count(Employee) Count
    -> FROM EMPLOYEE_MANAGER_DETAILS
    -> GROUP BY Manager
    -> ORDER BY Count DESC;
+-----------------+-------+
| Manager         | Count |
+-----------------+-------+
| Den Raphaely    |     5 |
| Nancy Greenberg |     4 |
| Matthew Weiss   |     4 |
| Neena Kochhar   |     1 |
+-----------------+-------+
4 rows in set (0.00 sec)
```

8. Find the count of employees in each department

```
mysql>
mysql> SELECT department_id, Count(*) Employee_Count
    -> FROM employees
    -> GROUP BY department_id
    -> ORDER BY department_id;
+---------------+----------------+
| department_id | Employee_Count |
+---------------+----------------+
|            20 |              1 |
|            30 |              3 |
|            40 |              3 |
|            50 |              5 |
|            60 |              3 |
|            70 |              1 |
|            80 |              2 |
|            90 |              1 |
|           100 |              1 |
|           110 |              1 |
|           130 |              1 |
|           150 |              1 |
|           160 |              1 |
|           170 |              2 |
+---------------+----------------+
14 rows in set (0.00 sec)
```

9. Get the count of employees hired year wise

```
mysql>
mysql> SELECT YEAR(hire_date) Year_of_Hiring, Count(*) Employee_Count
    -> FROM employees
    -> GROUP BY Year_of_Hiring
    -> ORDER BY Year_of_Hiring;
+----------------+----------------+
| Year_of_Hiring | Employee_Count |
+----------------+----------------+
|           1989 |              1 |
|           1991 |              1 |
|           1993 |              1 |
|           1994 |              3 |
|           1995 |              2 |
|           1996 |              1 |
|           1997 |              8 |
|           1998 |              4 |
|           1999 |              4 |
|           2000 |              1 |
+----------------+----------------+
10 rows in set (0.00 sec)
```

10 . create a stored procedure to get the “ Get the count of employees hired in the input year”(IN year , OUT count)

```
mysql>
mysql> DELIMITER $$
mysql> CREATE PROCEDURE EMPLOYEE_COUNT (
    -> IN Input_Year INT,
    -> OUT No_of_Employees INT
    -> )
    -> BEGIN
    -> SELECT Count(*)
    -> INTO No_of_Employees
    -> FROM employees
    -> WHERE Input_Year = Year(HIRE_DATE);
    -> END $$
ERROR 1304 (42000): PROCEDURE EMPLOYEE_COUNT already exists
mysql> DELIMITER ;
mysql> CALL EMPLOYEE_COUNT ('1997', @No_of_Employees);
Query OK, 1 row affected (0.01 sec)

mysql> SELECT @No_of_Employees;
+------------------+
| @No_of_Employees |
+------------------+
|                8 |
+------------------+
1 row in set (0.00 sec)
```

11.Select the employees whose first_name contains “an”

```
mysql> SELECT * FROM EMPLOYEES
    -> WHERE first_name LIKE '%an%';
+-------------+------------+-----------+----------+--------------+------------+------------+--------+---------------+------------+---------------+
| Employee_id | first_name | last_name | email    | phone_number | hire_date  | job_id     | salary | commission_pct | manager_id | department_id |
+-------------+------------+-----------+----------+--------------+------------+------------+--------+---------------+------------+---------------+
|         107 | Diana      | Lorentz   | DLORENTZ | 590.423.5567 | 1999-02-09 | IT_PROG    |   4200 |          NULL |        103 |            40 |
|         108 | Nancy      | Greenberg | NGREENBE | 515.124.4569 | 1994-08-17 | FI_MGR     |  12000 |          NULL |        101 |           100 |
|         109 | Daniel     | Faviet    | DFAVIET  | 515.124.4169 | 1994-08-12 | FI_ACCOUNT |   9000 |          NULL |        108 |           170 |
|         112 | Jose Manuel | Urman     | JMURMAN  | 515.124.4469 | 1998-06-03 | FI_ACCOUNT |   7800 |          NULL |        108 |           150 |
|         115 | Alexander  | Khoo      | AKHOO    | 515.127.4562 | 1995-05-12 | PU_CLERK   |   3100 |          NULL |        114 |            80 |
|         123 | Shanta     | Vollman   | SVOLLMAN | 650.123.4234 | 1997-10-12 | ST_MAN     |   6500 |          NULL |        100 |            50 |
+-------------+------------+-----------+----------+--------------+------------+------------+--------+---------------+------------+---------------+
6 rows in set (0.01 sec)
```

12. Select employee first name and the corresponding phone number in the format (_ _ _)-(_ _ _)-(_ _ _ _)

```
mysql>  SELECT first_name Name_of_Employee,
    ->  CONCAT('(',SUBSTRING(phone_number,1,3),')-(', SUBSTRING(phone_number,5,3),')-(',SUBSTRING(phone_number,9,4),')')
    ->  AS Phone_NUmber
    ->  from employees;
+------------------+--------------------+
| Name_of_Employee | Phone_NUmber       |
+------------------+--------------------+
| Neena            | (515)-(123)-(4568) |
| Lex              | (515)-(123)-(4569) |
| Bruce            | (590)-(423)-(4568) |
| David            | (590)-(423)-(4569) |
| Valli            | (590)-(423)-(4560) |
| Diana            | (590)-(423)-(5567) |
| Nancy            | (515)-(124)-(4569) |
| Daniel           | (515)-(124)-(4169) |
| John             | (515)-(124)-(4269) |
| Ismael           | (515)-(124)-(4369) |
| Jose Manuel      | (515)-(124)-(4469) |
| Den              | (515)-(127)-(4561) |
| Alexander        | (515)-(127)-(4562) |
| Shelli           | (515)-(127)-(4563) |
| Sigal            | (515)-(127)-(4564) |
| Guy              | (515)-(127)-(4565) |
| Karen            | (515)-(127)-(4566) |
| Matthew          | (650)-(123)-(1234) |
| Payam            | (650)-(123)-(3234) |
| Shanta           | (650)-(123)-(4234) |
| Kevin            | (650)-(123)-(5234) |
| Julia            | (650)-(124)-(1214) |
| Irene            | (650)-(124)-(1224) |
| James            | (650)-(124)-(1334) |
| Steven           | (650)-(124)-(1434) |
| Mozhe            | (650)-(124)-(6234) |
+------------------+--------------------+
26 rows in set (0.06 sec)
```

13. Find the employees who joined in August, 1994.

```
mysql>  SELECT * FROM employees
    ->  WHERE YEAR(hire_date)=1994 AND
    ->  MONTH(hire_date)=08;
+-------------+------------+-----------+----------+--------------+------------+------------+--------+----------------+------------+---------------+
| Employee_id | first_name | last_name | email    | phone_number | hire_date  | job_id     | salary | commission_pct | manager_id | department_id |
+-------------+------------+-----------+----------+--------------+------------+------------+--------+----------------+------------+---------------+
|         108 | Nancy      | Greenberg | NGREENBE | 515.124.4569 | 1994-08-17 | FI_MGR     |  12000 |           NULL |        101 |           100 |
|         109 | Daniel     | Faviet    | DFAVIET  | 515.124.4169 | 1994-08-12 | FI_ACCOUNT |   9000 |           NULL |        108 |           170 |
+-------------+------------+-----------+----------+--------------+------------+------------+--------+----------------+------------+---------------+
2 rows in set (0.01 sec)
```

14. Find the maximum salary from each department.

```
mysql>
mysql>  SELECT department_id, MAX(salary) AS Maximum_Salary
    ->  FROM employees
    ->  GROUP BY department_id
    ->  ORDER BY department_id;
+---------------+----------------+
| department_id | Maximum_Salary |
+---------------+----------------+
|            20 |          17000 |
|            30 |          17000 |
|            40 |           7900 |
|            50 |           8000 |
|            60 |           6000 |
|            70 |           2900 |
|            80 |           5800 |
|            90 |           2400 |
|           100 |          12000 |
|           110 |           2800 |
|           130 |           2500 |
|           150 |           7800 |
|           160 |           7700 |
|           170 |           9000 |
+---------------+----------------+
14 rows in set (0.00 sec)
```

15.Write a SQL query to display the 5 least earning employees

```
mysql>
mysql> SELECT DISTINCT first_name Employee_Name,
    -> salary
    -> FROM EMPLOYEES
    -> ORDER BY salary
    -> LIMIT 5;
+---------------+--------+
| Employee_Name | salary |
+---------------+--------+
| Steven        |   2200 |
| James         |   2400 |
| Karen         |   2500 |
| Guy           |   2600 |
| Irene         |   2700 |
+---------------+--------+
5 rows in set (0.01 sec)
```

16. Find the employees hired in the 80s

```
mysql>
mysql> SELECT CONCAT(first_name,' ', last_name) Employee,
    -> hire_date Date_of_hiring
    -> FROM employees
    -> WHERE YEAR(hire_date) BETWEEN '1980' AND '1989';
+--------------+----------------+
| Employee     | Date_of_hiring |
+--------------+----------------+
| Neena Kochhar | 1989-11-21     |
+--------------+----------------+
1 row in set (0.01 sec)
```

17. Find the employees who joined the company after 15th of the month

```
mysql>
mysql> SELECT CONCAT(first_name,' ', last_name) Employee,
    -> hire_date Date_of_hiring
    -> FROM employees
    -> WHERE DAY(hire_date)>15;
+-----------------+----------------+
| Employee        | Date_of_hiring |
+-----------------+----------------+
| Neena Kochhar   | 1989-11-21     |
| Bruce Ernst     | 1991-05-21     |
| David Austin    | 1997-06-25     |
| Nancy Greenberg | 1994-08-17     |
| Matthew Weiss   | 1996-07-18     |
+-----------------+----------------+
5 rows in set (0.00 sec)
```