TASK -2

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

```
mysql>
mysql> select first_name,last_name,job_id,salary
    -> from employees
    -> where first_name like 'S%';
+------------+-----------+----------+--------+
| first_name | last_name | job_id   | salary |
+------------+-----------+----------+--------+
| Steven     | King      | AD_PRES  |  24000 |
| Shelli     | Baida     | PU_CLERK |   2900 |
| Sigal      | Tobias    | PU_CLERK |   2800 |
| Shanta     | Vollman   | ST_MAN   |   6500 |
| Steven     | Markle    | ST_CLERK |   2200 |
+------------+-----------+----------+--------+
5 rows in set (0.00 sec)
```

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

```
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 |
+-------------+------------+-----------+-------+--------------+------------+---------+--------+----------------+------------+---------------+
|         100 | Steven     | King      | SKING | 515.123.4567 | 1987-06-17 | AD_PRES |  24000 | NULL           |       NULL |            20 |
+-------------+------------+-----------+-------+--------------+------------+---------+--------+----------------+------------+---------------+
1 row in set (0.01 sec)
```

3.Select employee with the second highest salary

```
mysql> select *
    -> from employees
    -> where salary =
    -> ( select MAX(salary)
    ->   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)
```

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

```
mysql> select e.first_name as "Emp_Name",m.first_name as "Manager",m.salary as "Salary"
    -> from employees e left join employees m on e.manager_id = m.employee_id;
+-------------+-----------+--------+
| Emp_Name    | Manager   | Salary |
+-------------+-----------+--------+
| Steven      | NULL      |   NULL |
| Neena       | Steven    |  24000 |
| Lex         | Steven    |  24000 |
| Alexander   | Lex       |  17000 |
| Bruce       | Alexander |   9000 |
| David       | Alexander |   9000 |
| Valli       | Alexander |   9000 |
| Diana       | Alexander |   9000 |
| Nancy       | Neena     |  17000 |
| Daniel      | Nancy     |  12000 |
| John        | Nancy     |  12000 |
| Ismael      | Nancy     |  12000 |
| Jose Manuel | Nancy     |  12000 |
| Luis        | Nancy     |  12000 |
| Den         | Steven    |  24000 |
| Alexander   | Den       |  11000 |
| Shelli      | Den       |  11000 |
| Sigal       | Den       |  11000 |
| Guy         | Den       |  11000 |
| Karen       | Den       |  11000 |
| Matthew     | Steven    |  24000 |
| Adam        | Steven    |  24000 |
| Payam       | Steven    |  24000 |
| Shanta      | Steven    |  24000 |
| Kevin       | Steven    |  24000 |
| Julia       | Matthew   |   8000 |
| Irene       | Matthew   |   8000 |
| James       | Matthew   |   8000 |
| Steven      | Matthew   |   8000 |
| Laura       | Adam      |   8200 |
| Mozhe       | Adam      |   8200 |
+-------------+-----------+--------+
31 rows in set (0.00 sec)
```

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

```
mysql>
mysql> select e.employee_id as "Emp_id", e.first_name as "Emp_Name",m.first_name as "Manager",m.salary as "Salary"
    -> from employees e join employees m on e.manager_id = m.employee_id;
+--------+-------------+-----------+--------+
| Emp_id | Emp_Name    | Manager   | Salary |
+--------+-------------+-----------+--------+
|    101 | Neena       | Steven    |  24000 |
|    102 | Lex         | Steven    |  24000 |
|    103 | Alexander   | Lex       |  17000 |
|    104 | Bruce       | Alexander |   9000 |
|    105 | David       | Alexander |   9000 |
|    106 | Valli       | Alexander |   9000 |
|    107 | Diana       | Alexander |   9000 |
|    108 | Nancy       | Neena     |  17000 |
|    109 | Daniel      | Nancy     |  12000 |
|    110 | John        | Nancy     |  12000 |
|    111 | Ismael      | Nancy     |  12000 |
|    112 | Jose Manuel | Nancy     |  12000 |
|    113 | Luis        | Nancy     |  12000 |
|    114 | Den         | Steven    |  24000 |
|    115 | Alexander   | Den       |  11000 |
|    116 | Shelli      | Den       |  11000 |
|    117 | Sigal       | Den       |  11000 |
|    118 | Guy         | Den       |  11000 |
|    119 | Karen       | Den       |  11000 |
|    120 | Matthew     | Steven    |  24000 |
|    121 | Adam        | Steven    |  24000 |
|    122 | Payam       | Steven    |  24000 |
|    123 | Shanta      | Steven    |  24000 |
|    124 | Kevin       | Steven    |  24000 |
|    125 | Julia       | Matthew   |   8000 |
|    126 | Irene       | Matthew   |   8000 |
|    127 | James       | Matthew   |   8000 |
|    128 | Steven      | Matthew   |   8000 |
|    129 | Laura       | Adam      |   8200 |
|    130 | Mozhe       | Adam      |   8200 |
+--------+-------------+-----------+--------+
30 rows in set (0.00 sec)
```

6.Create a view for the above query

```
mysql>
mysql> create view empdetls as
    ->  select e.employee_id as "Emp_id", e.first_name as "Emp_Name",m.first_name as "Manager",m.salary as "Salary"
    ->  from employees e join employees m on e.manager_id = m.employee_id;
Query OK, 0 rows affected (0.01 sec)

mysql> show full tables;
+----------------------------+------------+
| Tables_in_entri_assignment | Table_type |
+----------------------------+------------+
| departments                | BASE TABLE |
| empdetls                   | 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>
mysql> select Manager,COUNT(Emp_id) as Emp_Count
    -> from empdetls
    -> group by Manager
    -> order by Emp_Count desc;
+-----------+-----------+
| Manager   | Emp_Count |
+-----------+-----------+
| Steven    |         8 |
| Nancy     |         5 |
| Den       |         5 |
| Alexander |         4 |
| Matthew   |         4 |
| Adam      |         2 |
| Lex       |         1 |
| Neena     |         1 |
+-----------+-----------+
8 rows in set (0.00 sec)
```

8.Find the count of employees in each department

```
mysql>
mysql>
mysql> select  Department_name,COUNT(employee_id) as "Emp_Count"
    -> from Departments d
    -> left join employees e on d.Department_id = e.department_id
    -> group by d.Department_id, Department_name
    -> order by Emp_Count desc;
+----------------------+-----------+
| Department_name      | Emp_Count |
+----------------------+-----------+
| Shipping             |         7 |
| IT                   |         4 |
| Purchasing           |         3 |
| Human Resources      |         3 |
| Marketing            |         2 |
| Sales                |         2 |
| Payroll              |         2 |
| Public Relations     |         1 |
| Executive            |         1 |
| Finance              |         1 |
| Accounting           |         1 |
| Corporate Tax        |         1 |
| Control And Credit   |         1 |
| Shareholder Services |         1 |
| Benefits             |         1 |
| Treasury             |         0 |
+----------------------+-----------+
16 rows in set (0.01 sec)
```

9.Get the count of employees hired year wise

```
mysql> select YEAR(hire_date) as "Year",COUNT(*) as "Hired"
    -> from employees
    -> group by Year
    -> order by Year;
+------+-------+
| Year | Hired |
+------+-------+
| 1987 |     1 |
| 1989 |     1 |
| 1990 |     1 |
| 1991 |     1 |
| 1993 |     1 |
| 1994 |     3 |
| 1995 |     2 |
| 1996 |     1 |
| 1997 |    10 |
| 1998 |     4 |
| 1999 |     5 |
| 2000 |     1 |
+------+-------+
12 rows in set (0.01 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 GetEmployeeCountByYear
    -> (
    ->     IN inputYear INT,
    ->     OUT employeeCount INT
    -> )
    -> BEGIN
    ->     SELECT COUNT(*) INTO employeeCount
    ->     FROM employees
    ->     WHERE YEAR(hire_date) = inputYear;
    -> END //
Query OK, 0 rows affected (0.01 sec)

mysql> DELIMITER ;
mysql>
```

11. Select the employees whose first_name contains “an”

```
mysql>
mysql> select first_name
    -> from employees
    -> where first_name LIKE '%an%';
+-------------+
| first_name  |
+-------------+
| Alexander   |
| Diana       |
| Nancy       |
| Daniel      |
| Jose Manuel |
| Alexander   |
| Shanta      |
+-------------+
7 rows in set (0.00 sec)
```

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

```
mysql>
mysql>
mysql> select first_name,CONCAT
    -> ('(',SUBSTRING(phone_number,1,3),')-(',SUBSTRING(phone_number,5,3),')-(',SUBSTRING(phone_number,9,4),')') as 'Phone Number'
    -> from employees;
+-------------+------------------+
| first_name  | Phone Number     |
+-------------+------------------+
| Steven      | (515)-(123)-(4567) |
| Neena       | (515)-(123)-(4568) |
| Lex         | (515)-(123)-(4569) |
| Alexander   | (590)-(423)-(4567) |
| 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) |
| Luis        | (515)-(124)-(4567) |
| 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) |
| Adam        | (650)-(123)-(2234) |
| 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) |
| Laura       | (650)-(124)-(5234) |
| Mozhe       | (650)-(124)-(6234) |
+-------------+------------------+
31 rows in set (0.00 sec)
```

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

```
mysql> select *
    -> from employees
    -> where MONTH(hire_date) = 8
    -> and YEAR(hire_date) = 1994;
+-------------+------------+-----------+----------+--------------+------------+-----------+--------+----------------+------------+---------------+
| 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 (0.00 sec)
```

14. Find the maximum salary from each department.

```
mysql>
mysql> select Department_name,Max(salary) as 'Salary'
    -> from Departments d
    -> inner join employees e on d.Department_id = e.department_id
    -> group by Department_name;
+----------------------+---------+
| Department_name      | Salary |
+----------------------+---------+
| Marketing            |  24000 |
| Purchasing           |  17000 |
| IT                   |   9000 |
| Human Resources      |   7900 |
| Finance              |  12000 |
| Payroll              |   9000 |
| Benefits             |   7700 |
| Shareholder Services |   7800 |
| Control And Credit   |   6900 |
| Sales                |   5800 |
| Public Relations     |   2900 |
| Corporate Tax        |   2500 |
| Shipping             |   8200 |
| Executive            |   2400 |
| Accounting           |   2800 |
+----------------------+---------+
15 rows in set (0.00 sec)
```

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

```
mysql> select *
    -> from employees
    -> order by salary
    -> LIMIT 5;
+-------------+------------+-------------+----------+--------------+------------+----------+--------+----------------+------------+---------------+
| Employee_id | first_name | last_name   | email    | phone_number | hire_date  | job_id   | salary | commission_pct | manager_id | department_id |
+-------------+------------+-------------+----------+--------------+------------+----------+--------+----------------+------------+---------------+
|         128 | Steven     | Markle      | SMARKLE  | 650.124.1434 | 2000-03-04 | ST_CLERK |   2200 | NULL           |        120 |            50 |
|         127 | James      | Landry      | JLANDRY  | 650.124.1334 | 1999-01-02 | ST_CLERK |   2400 | NULL           |        120 |            90 |
|         119 | Karen      | Colmenares  | KCOLMENA | 515.127.4566 | 1999-04-08 | PU_CLERK |   2500 | NULL           |        114 |           130 |
|         118 | Guy        | Himuro      | GHIMURO  | 515.127.4565 | 1998-01-02 | PU_CLERK |   2600 | NULL           |        114 |            60 |
|         126 | Irene      | Mikkilineni | IMIKKILI | 650.124.1224 | 1998-11-12 | ST_CLERK |   2700 | NULL           |        120 |            50 |
+-------------+------------+-------------+----------+--------------+------------+----------+--------+----------------+------------+---------------+
5 rows in set (0.00 sec)
```

16. Find the employees hired in the 80s

```
mysql>
mysql> select *
    -> from employees
    -> where YEAR(hire_date) BETWEEN 1980 and 1989;
+-------------+------------+-----------+----------+--------------+------------+-----------+--------+----------------+------------+---------------+
| Employee_id | first_name | last_name | email    | phone_number | hire_date  | job_id    | salary | commission_pct | manager_id | department_id |
+-------------+------------+-----------+----------+--------------+------------+-----------+--------+----------------+------------+---------------+
|         100 | Steven     | King      | SKING    | 515.123.4567 | 1987-06-17 | AD_PRES   |  24000 | NULL           |       NULL |            20 |
|         101 | Neena      | Kochhar   | NKOCHHAR | 515.123.4568 | 1989-11-21 | AD_VP     |  17000 | NULL           |        100 |            20 |
+-------------+------------+-----------+----------+--------------+------------+-----------+--------+----------------+------------+---------------+
2 rows in set (0.00 sec)
```

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

```
mysql> select *
    -> from employees
    -> where DAY(hire_date)>15;
+-------------+------------+-----------+----------+--------------+------------+-----------+--------+----------------+------------+---------------+
| Employee_id | first_name | last_name | email    | phone_number | hire_date  | job_id    | salary | commission_pct | manager_id | department_id |
+-------------+------------+-----------+----------+--------------+------------+-----------+--------+----------------+------------+---------------+
|         100 | Steven     | King      | SKING    | 515.123.4567 | 1987-06-17 | AD_PRES   |  24000 | NULL           |       NULL |            20 |
|         101 | Neena      | Kochhar   | NKOCHHAR | 515.123.4568 | 1989-11-21 | AD_VP     |  17000 | NULL           |        100 |            20 |
|         103 | Alexander  | Hunold    | AHUNOLD  | 590.423.4567 | 1990-09-30 | IT_PROG   |   9000 | NULL           |        102 |            60 |
|         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 |
|         108 | Nancy      | Greenberg | NGREENBE | 515.124.4569 | 1994-08-17 | FI_MGR    |  12000 | NULL           |        101 |           100 |
|         120 | Matthew    | Weiss     | MWEISS   | 650.123.1234 | 1996-07-18 | ST_MAN    |   8000 | NULL           |        100 |            50 |
+-------------+------------+-----------+----------+--------------+------------+-----------+--------+----------------+------------+---------------+
7 rows in set (0.00 sec)
```