Assignment 2

1.Display UnitPrice which is the maximum in the store.

Select max(unitprice) from item;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select * from item;
+----------+-----------------+------------------+-----------+------------------+----------------+
| ITEMCODE | ITEMNAME        | MANUFACTURERNAME | UNITPRICE | MANUFACTURINGYEAR | ITEMCATEGORY   |
+----------+-----------------+------------------+-----------+------------------+----------------+
| IT101    | LED32Inch       | Samsung          |  15000.00 | 2015-11-14        | Television     |
| IT102    | GlaxyS5         | Samsung          |  13000.00 | 2016-04-16        | Mobile         |
| IT103    | FrontLoad       | Samsung          |  20000.00 | 2016-05-23        | WashingMachine |
| IT104    | DualDoor        | Samsung          |  12000.00 | 2015-11-20        | Refrigerator   |
| IT105    | Pencils         | Natraj           |      2.00 | 2016-01-11        | Stationery     |
| IT106    | LED32Inch       | LG               |  19000.00 | 2016-01-01        | Television     |
| IT107    | LG G5 Sliver    | LG               |  11000.00 | 2015-11-20        | Mobile         |
| IT108    | TopLoad         | LG               |  25000.00 | 2016-04-18        | WashingMachine |
| IT109    | FourDoor        | LG               |  18000.00 | 2016-05-18        | Refrigerator   |
| IT110    | Erasers         | Camlin           |      5.00 | 2016-01-15        | Stationery     |
| IT111    | LED32Inch       | Sony             |  22000.00 | 2016-03-14        | Television     |
| IT112    | Sony Xperia Z5  | Sony             |   9000.00 | 2015-12-14        | Mobile         |
| IT113    | FullyAutomatic  | Sony             |  22000.00 | 2015-12-13        | WashingMachine |
| IT114    | ThreeDoorNormal | Sony             |  19000.00 | 2016-06-14        | Refrigerator   |
| IT115    | Pens            | Faber Castell    |     10.00 | 2016-01-19        | Stationery     |
| IT116    | LED32Inch       | Onida            |  20000.00 | 2016-02-19        | Television     |
| IT117    | Onida i505      | Onida            |  10000.00 | 2016-04-23        | Mobile         |
| IT118    | SemiAutoMatic   | Onida            |  11000.00 | 2015-12-31        | WashingMachine |
| IT119    | ThreeDoorLux    | Onida            |  18000.00 | 2016-06-19        | Refrigerator   |
| IT120    | Sharpner        | Apsara           |      5.00 | 2016-01-21        | Stationery     |
| IT121    | LED50Inch       | Onida            |  48000.00 | 2016-01-21        | Television     |
| IT122    | ThreeDoor       | Thomson          |  21000.00 | 2016-04-23        | Refrigerator   |
| IT123    | LED50Inch       | LG               |  38000.00 | 2016-03-14        | Television     |
| IT124    | ThreeDoor       | Samsung          |  22000.00 | 2016-02-19        | Refrigerator   |
| IT125    | FourDoor        | Samsung          |  21000.00 | 2015-12-14        | Refrigerator   |
| IT129    | LED50Inch       | Sony             |  45000.00 | 2016-10-11        | Television     |
+----------+-----------------+------------------+-----------+------------------+----------------+
26 rows in set (0.00 sec)

mysql> select max(unitprice) from item;
+---------------+
| max(unitprice) |
+---------------+
|      48000.00 |
+---------------+
1 row in set (0.00 sec)
```

2.Display the total number of items in the store. //Using Group By in Select Statement

→ Select count(*) from item;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select count(*) from item;
+----------+
| count(*) |
+----------+
|       26 |
+----------+
1 row in set (0.00 sec)

mysql>
```

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→Select itemcategory, count(*) from item group by itemcategory;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select itemcategory, count(*) from item group by itemcategory;
+----------------+----------+
| itemcategory   | count(*) |
+----------------+----------+
| Mobile         |        4 |
| Refrigerator   |        7 |
| Stationery     |        4 |
| Television     |        7 |
| WashingMachine |        4 |
+----------------+----------+
5 rows in set (0.00 sec)

mysql>
```

3. Display customerId and total number of orders placed by each customer.

select customerid, count(orderid) from ordermaster group by customerid;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql>
mysql>
mysql> select * from ordermaster;
+---------+------------+------------------+------------+
| ORDERID | ORDERDATE  | TOTALORDERAMOUNT | CUSTOMERID |
+---------+------------+------------------+------------+
|   70001 | 2016-07-07 |         49000.00 |       1001 |
|   70002 | 2016-06-27 |         82000.00 |       1006 |
|   70003 | 2016-07-09 |           200.00 |       1005 |
|   70004 | 2016-07-10 |         46000.00 |       1006 |
|   70005 | 2016-06-22 |         48000.00 |       1005 |
|   70006 | 2016-07-10 |           200.00 |       1006 |
|   70007 | 2016-07-26 |         49000.00 |       1005 |
+---------+------------+------------------+------------+
7 rows in set (0.00 sec)

mysql> select customerid, count(orderid) from ordermaster group by customerid;
+------------+----------------+
| customerid | count(orderid) |
+------------+----------------+
|       1001 |              1 |
|       1005 |              3 |
|       1006 |              3 |
+------------+----------------+
3 rows in set (0.00 sec)

mysql>
```

4. Display ItemCategory and average UnitPrice in each item category.

Select itemcategory, avg(unitprice) from item group by itemcategory;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select itemcategory, avg(unitprice) from item group by itemcategory;
+----------------+----------------+
| itemcategory   | avg(unitprice) |
+----------------+----------------+
| Mobile         |   10750.000000 |
| Refrigerator   |   18714.285714 |
| Stationery     |       5.500000 |
| Television     |   29571.428571 |
| WashingMachine |   19500.000000 |
+----------------+----------------+
5 rows in set (0.00 sec)

mysql>
```

5. Display customerId of customers who have placed more than 1 order.

Select customerid, count(orderid) from ordermaster group by customerid having count(orderid)>1;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select customerid,count(orderid) from ordermaster group by customerid having count(orderid)>1;
+------------+---------------+
| customerid | count(orderid) |
+------------+---------------+
|       1005 |             3 |
|       1006 |             3 |
+------------+---------------+
2 rows in set (0.00 sec)

mysql>
```

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6. Display ItemCategory of items which has the minimum unit price more than INR 10,000.

Select itemcategory from item group by itemcategory having min(unitprice)>10000;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select itemcategory from item group by itemcategory having min(unitprice)>10000;
+----------------+
| itemcategory   |
+----------------+
| Refrigerator   |
| Television     |
| WashingMachine |
+----------------+
3 rows in set (0.00 sec)

mysql> Select itemcategory,min(unitprice) from item group by itemcategory having min(unitprice)>10000;
+----------------+----------------+
| itemcategory   | min(unitprice) |
+----------------+----------------+
| Refrigerator   |       12000.00 |
| Television     |       15000.00 |
| WashingMachine |       11000.00 |
+----------------+----------------+
3 rows in set (0.00 sec)

mysql>
```

7. Display ItemCategory, total number of items for "Television" and "Refrigerator" if the total number of items exceeds 5. Display the results in the descending order of total number of items.

select itemcategory,count(itemcategory) from item where itemcategory in ('Television','Refrigerator') group by itemcategory having count(itemcategory)>5 order by count(itemcategory) desc;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select itemcategory,count(itemcategory) from item where itemcategory in ('Television','Refrigerator') group by itemcategory having count(itemcategory)>5 order by cou
nt(itemcategory) desc;
+-------------+--------------------+
| itemcategory | count(itemcategory) |
+-------------+--------------------+
| Refrigerator |                  7 |
| Television   |                  7 |
+-------------+--------------------+
2 rows in set (0.00 sec)

mysql>
```

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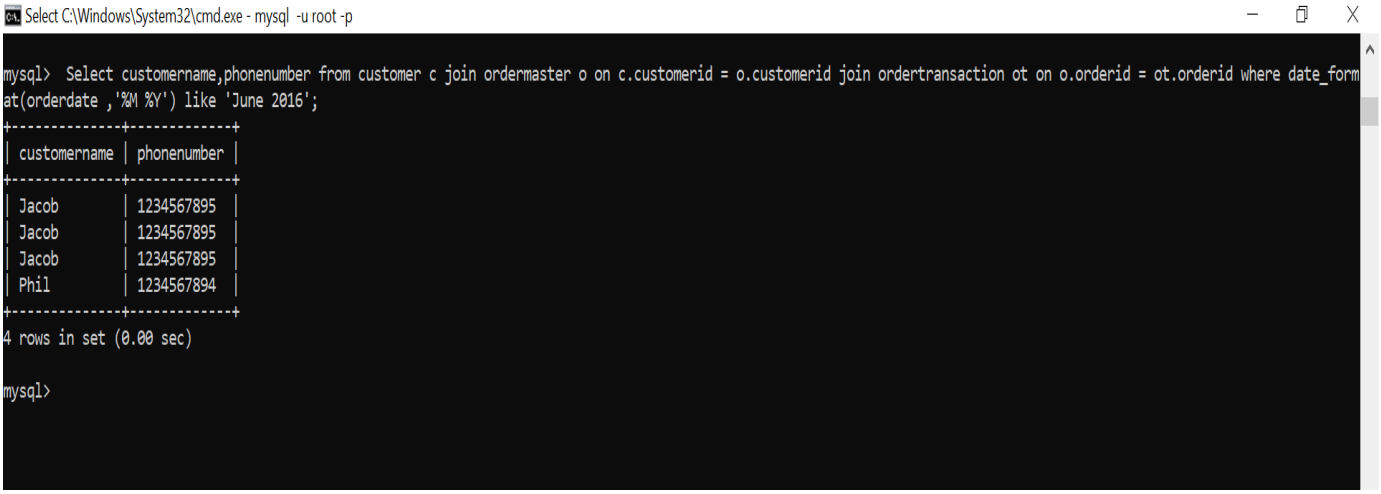
Data Retrieval Language – Subqueries and Joins

8. Display CustomerName and PhoneNumer of customers who have placed a single order of more than INR 45,000.

9. Display CustomerName and PhoneNumber of Customers who have placed orders in the month of June in year 2016.



10. Display ItemCode, ItemName and UnitPrice of items which were not ordered by any customer.
11. Display itemCode and ItemName of items that are ordered exactly once.
12. Display customerId of customers who have placed more than one order.
13. Display CustomerName and PhoneNumber of Customers who have placed order for most expensive item in the store.
14. Display OrderId, CustomerId, CustomerName, Address and PhoneNumber for all the orders placed.
15. Display ItemCode, ItemName, QtyOrdered, UnitPrice for OrderId 70002.
16. Display OrderId, CustomerId, CustomerName, Address and Phone for all the orders placed. Include the details about the customer even if there are no orders placed by the customer.
17. Display the ItemCode, UnitPrice of the all the items in each ItemCategory where the unitprice is less than the average unitprice for the itemcategory.

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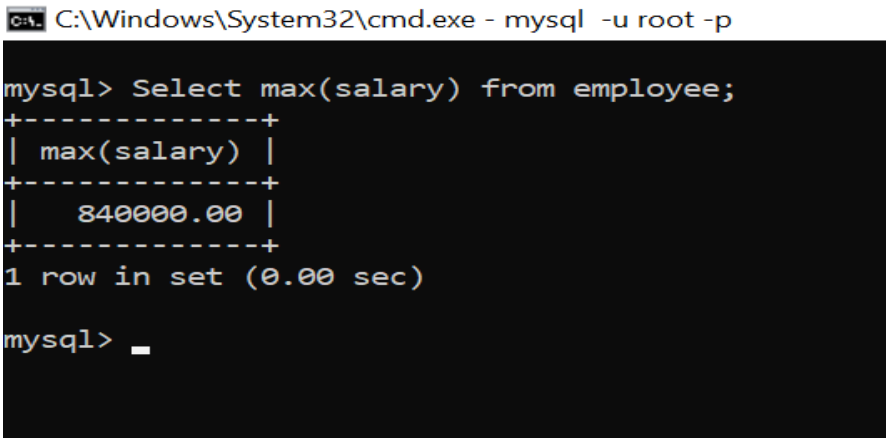
Aggregate Functions

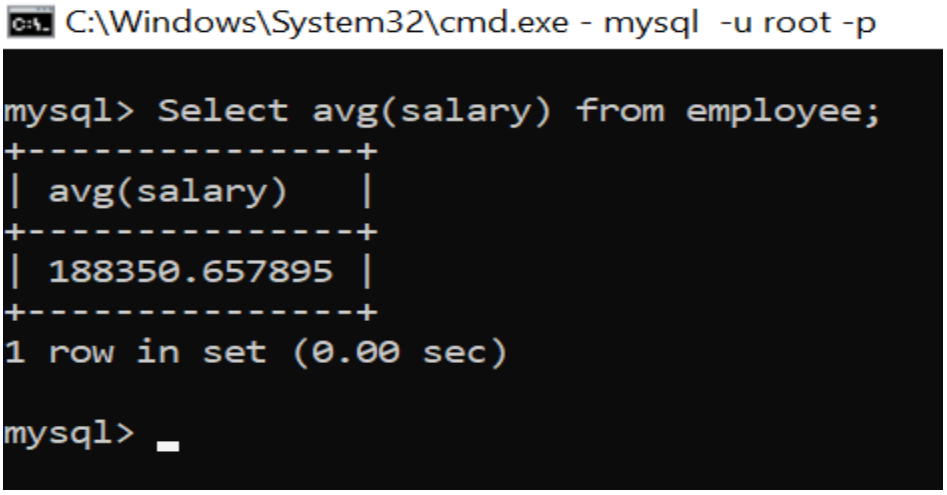
18.Display the maximum of salary of the company.

Select max(salary) from employee;



19. Display the average salary of the company.

Select avg(salary) from employee;



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20. Display the maximum salary of employees who are TLs.

Select max(salary) from employee where designation = 'TL';

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select max(salary) from employee where designation = 'TL';
+-------------+
| max(salary) |
+-------------+
|    92400.00 |
+-------------+
1 row in set (0.00 sec)

mysql> select * from employee;
+----------------+--------------+------------+--------------+-------------+-----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | DESIGNATION | SALARY    | ManagerEmployeeNumber | DEPARTMENTCODE |
+----------------+--------------+------------+--------------+-------------+-----------+----------------------+----------------+
|           7001 | Cynthya      | 1975-05-12  | 1997-02-14    | CEO         | 840000.00 |                 7001 | NULL           |
|           7002 | Mario        | 1976-02-14  | 1998-04-16    | MD          | 525000.00 |                 7001 | JavaCap        |
|           7003 | Jacob        | 1976-03-16  | 1998-05-16    | MD          | 420000.00 |                 7001 | .NETCap        |
|           7004 | Lucy         | 1978-05-15  | 2000-07-15    | MD          | 441000.00 |                 7001 | LKM            |
|           7005 | Amy          | 1978-09-16  | 2000-11-16    | SM          | 252000.00 |                 7002 | JavaCap        |
|           7006 | Frank        | 1978-09-17  | 2000-09-19    | SM          | 231000.00 |                 7003 | .NETCap        |
|           7007 | Phil         | 1974-12-11  | 2000-11-12    | SM          | 231000.00 |                 7004 | LKM            |
|           7008 | Arnold       | 1984-03-13  | 2000-04-01    | TL          |  84000.00 |                 7005 | JavaCap        |
|           7009 | Jack         | 1984-09-13  | 2000-06-23    | TL          |  92400.00 |                 7006 | .NETCap        |
|           7010 | Justin       | 1984-11-07  | 2000-02-09    | TL          |  90300.00 |                 7007 | LKM            |
|           7011 | Megan        | 1984-07-21  | 2002-09-19    | TL          |  91350.00 |                 7007 | LKM            |
|           7012 | Stuart       | 1980-05-12  | 2016-05-22    | SSE         |  38587.50 |                 7008 | JavaCap        |
|           7013 | Clarke       | 1994-02-24  | 2016-05-22    | SSE         |  35280.00 |                 7008 | JavaCap        |
|           7014 | Darwin       | 1992-05-03  | 2016-05-22    | SE          |  31500.00 |                 7009 | .NETCap        |
|           7015 | Chelsea      | 1994-01-19  | 2016-05-22    | SSE         |  41895.00 |                 7010 | LKM            |
|           7016 | Dan          | 1991-05-27  | 2016-06-07    | SE          |  31500.00 |                 7009 | .NETCap        |
|           7017 | Jimmy        | 1993-08-11  | 2016-06-07    | SE          |  33600.00 |                 7010 | LKM            |
|           7018 | James        | 1993-12-19  | 2016-06-07    | SE          |  36750.00 |                 NULL | .NETCap        |
|           7019 | Joseph       | 1992-12-31  | 2016-06-07    | SE          |  31500.00 |                 NULL | .NETCap        |
+----------------+--------------+------------+--------------+-------------+-----------+----------------------+----------------+
19 rows in set (0.00 sec)

mysql>
```

21. Display the total number of employees in the company.

Select count(*) as 'total employee' from employee;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select count(*) as 'total employee' from employee;
+----------------+
| total employee |
+----------------+
|             19 |
+----------------+
1 row in set (0.00 sec)

mysql>
```

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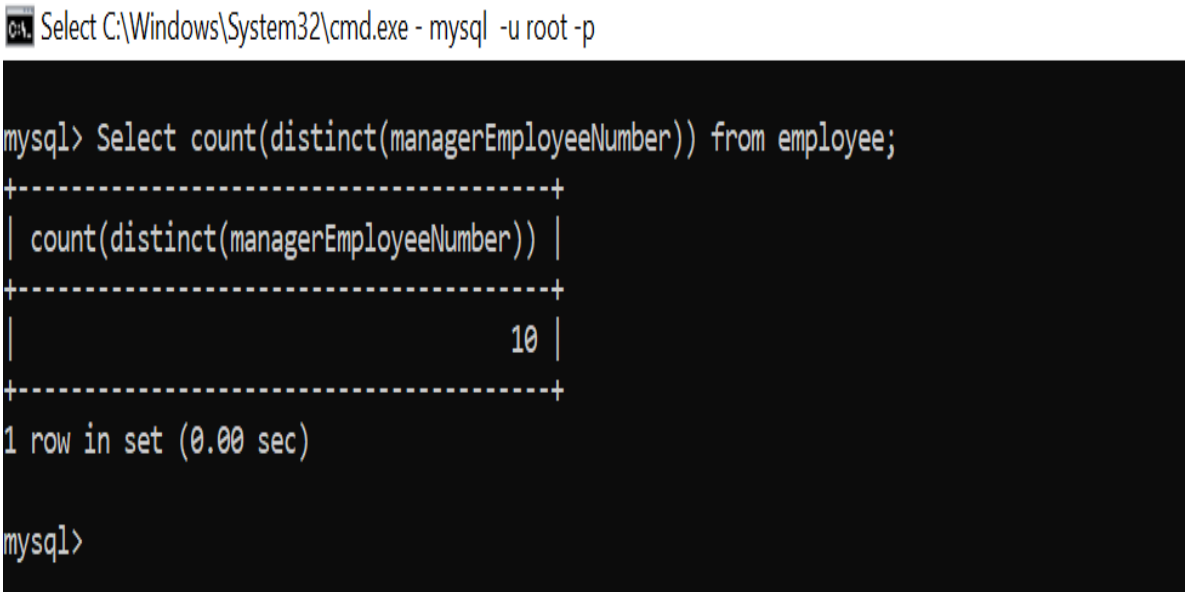
22. Display the total number of Managers in the company. (If an employee is playing the role of the supervisor for any other employee then the employee is considered as Manager).
Select count(distinct(managerEmployeeNumber)) from employee;



GROUP BY

24. Display designation and number of employees in each designation.

Select designation, count(employeeNumber) from employee group by designation;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select * from employee;
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | DESIGNATION | SALARY   | ManagerEmployeeNumber | DEPARTMENTCODE |
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
|           7001 | Cynthya      | 1975-05-12 | 1997-02-14   | CEO         | 840000.00 |                 7001 | NULL           |
|           7002 | Mario        | 1976-02-14 | 1998-04-16   | MD          | 525000.00 |                 7001 | JavaCap        |
|           7003 | Jacob        | 1976-03-16 | 1998-05-16   | MD          | 420000.00 |                 7001 | .NETCap        |
|           7004 | Lucy         | 1978-05-15 | 2000-07-15   | MD          | 441000.00 |                 7001 | LKM            |
|           7005 | Amy          | 1978-09-16 | 2000-11-16   | SM          | 252000.00 |                 7002 | JavaCap        |
|           7006 | Frank        | 1978-09-17 | 2000-09-19   | SM          | 231000.00 |                 7003 | .NETCap        |
|           7007 | Phil         | 1974-12-11 | 2000-11-12   | SM          | 231000.00 |                 7004 | LKM            |
|           7008 | Arnold       | 1984-03-13 | 2000-04-01   | TL          |  84000.00 |                 7005 | JavaCap        |
|           7009 | Jack         | 1984-09-13 | 2000-06-23   | TL          |  92400.00 |                 7006 | .NETCap        |
|           7010 | Justin       | 1984-11-07 | 2000-02-09   | TL          |  90300.00 |                 7007 | LKM            |
|           7011 | Megan        | 1984-07-21 | 2002-09-19   | TL          |  91350.00 |                 7007 | LKM            |
|           7012 | Stuart       | 1980-05-12 | 2016-05-22   | SSE         |  38587.50 |                 7008 | JavaCap        |
|           7013 | Clarke       | 1994-02-24 | 2016-05-22   | SSE         |  35280.00 |                 7008 | JavaCap        |
|           7014 | Darwin       | 1992-05-03 | 2016-05-22   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7015 | Chelsea      | 1994-01-19 | 2016-05-22   | SSE         |  41895.00 |                 7010 | LKM            |
|           7016 | Dan          | 1991-05-27 | 2016-06-07   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7017 | Jimmy        | 1993-08-11 | 2016-06-07   | SE          |  33600.00 |                 7010 | LKM            |
|           7018 | James        | 1993-12-19 | 2016-06-07   | SE          |  36750.00 |                 NULL | .NETCap        |
|           7019 | Joseph       | 1992-12-31 | 2016-06-07   | SE          |  31500.00 |                 NULL | .NETCap        |
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
19 rows in set (0.00 sec)

mysql> Select designation, count(employeeId) from employee group by designation;
ERROR 1054 (42S22): Unknown column 'employeeId' in 'field list'
mysql> Select designation, count(employeenumber) from employee group by designation;
+-------------+----------------------+
| designation | count(employeenumber) |
+-------------+----------------------+
| CEO         |                    1 |
| MD          |                    3 |
| SE          |                    5 |
| SM          |                    3 |
| SSE         |                    3 |
| TL          |                    4 |
+-------------+----------------------+
6 rows in set (0.00 sec)
```

25. Display designation and maximum salary for each designation.

Select designation, max(salary) from employee group by designation;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select designation, max(salary) from employee group by designation;
+-------------+-------------+
| designation | max(salary) |
+-------------+-------------+
| CEO         |   840000.00 |
| MD          |   525000.00 |
| SE          |    36750.00 |
| SM          |   252000.00 |
| SSE         |    41895.00 |
| TL          |    92400.00 |
+-------------+-------------+
6 rows in set (0.00 sec)

mysql>
```

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26. Display Designation and maximum salary for each designation. Display the results in the decreasing order of maximum salary.

Select designation, max(salary) from employee group by designation order by max(salary) desc;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select designation, max(salary) from employee group by designation order by max(salary) desc;
+-------------+-------------+
| designation | max(salary) |
+-------------+-------------+
| CEO         |   840000.00 |
| MD          |   525000.00 |
| SM          |   252000.00 |
| TL          |    92400.00 |
| SSE         |    41895.00 |
| SE          |    36750.00 |
+-------------+-------------+
6 rows in set (0.00 sec)

mysql>
```

27. Display DepartmentCode and number of employees working for each department.
Select departmentcode, count(employeenumber) from employee group by departmentcode;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select * from employee;
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | DESIGNATION | SALARY   | ManagerEmployeeNumber | DEPARTMENTCODE |
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
|           7001 | Cynthya      | 1975-05-12 | 1997-02-14   | CEO         | 840000.00 |                 7001 | NULL           |
|           7002 | Mario        | 1976-02-14 | 1998-04-16   | MD          | 525000.00 |                 7001 | JavaCap        |
|           7003 | Jacob        | 1976-03-16 | 1998-05-16   | MD          | 420000.00 |                 7001 | .NETCap        |
|           7004 | Lucy         | 1978-05-15 | 2000-07-15   | MD          | 441000.00 |                 7001 | LKM            |
|           7005 | Amy          | 1978-09-16 | 2000-11-16   | SM          | 252000.00 |                 7002 | JavaCap        |
|           7006 | Frank        | 1978-09-17 | 2000-09-19   | SM          | 231000.00 |                 7003 | .NETCap        |
|           7007 | Phil         | 1974-12-11 | 2000-11-12   | SM          | 231000.00 |                 7004 | LKM            |
|           7008 | Arnold       | 1984-03-13 | 2000-04-01   | TL          |  84000.00 |                 7005 | JavaCap        |
|           7009 | Jack         | 1984-09-13 | 2000-06-23   | TL          |  92400.00 |                 7006 | .NETCap        |
|           7010 | Justin       | 1984-11-07 | 2000-02-09   | TL          |  90300.00 |                 7007 | LKM            |
|           7011 | Megan        | 1984-07-21 | 2002-09-19   | TL          |  91350.00 |                 7007 | LKM            |
|           7012 | Stuart       | 1980-05-12 | 2016-05-22   | SSE         |  38587.50 |                 7008 | JavaCap        |
|           7013 | Clarke       | 1994-02-24 | 2016-05-22   | SSE         |  35280.00 |                 7008 | JavaCap        |
|           7014 | Darwin       | 1992-05-03 | 2016-05-22   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7015 | Chelsea      | 1994-01-19 | 2016-05-22   | SSE         |  41895.00 |                 7010 | LKM            |
|           7016 | Dan          | 1991-05-27 | 2016-06-07   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7017 | Jimmy        | 1993-08-11 | 2016-06-07   | SE          |  33600.00 |                 7010 | LKM            |
|           7018 | James        | 1993-12-19 | 2016-06-07   | SE          |  36750.00 |                 NULL | .NETCap        |
|           7019 | Joseph       | 1992-12-31 | 2016-06-07   | SE          |  31500.00 |                 NULL | .NETCap        |
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
19 rows in set (0.00 sec)

mysql> Select departmentcode, count(employeenumber) from employee group by departmentcode;
+----------------+-----------------------+
| departmentcode | count(employeenumber) |
+----------------+-----------------------+
| NULL           |                     1 |
| .NETCap        |                     7 |
| JavaCap        |                     5 |
| LKM            |                     6 |
+----------------+-----------------------+
4 rows in set (0.00 sec)
```

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28. Display Designation and maximum salary for ‘TL’ and ‘SSE’

select designation,max(salary) from employee where designation in (select designation from employee where designation in('TL','SSE')) group by designation;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select  designation,max(salary) from employee group by designation;
+-------------+-------------+
| designation | max(salary) |
+-------------+-------------+
| CEO         |   840000.00 |
| MD          |   525000.00 |
| SE          |    36750.00 |
| SM          |   252000.00 |
| SSE         |    41895.00 |
| TL          |    92400.00 |
+-------------+-------------+
6 rows in set (0.00 sec)

mysql> select  designation,max(salary) from employee where designation in (select designation from employee where designation in('TL','SSE')) group by designation;
+-------------+-------------+
| designation | max(salary) |
+-------------+-------------+
| SSE         |    41895.00 |
| TL          |    92400.00 |
+-------------+-------------+
2 rows in set (0.00 sec)

mysql>
```

29. Display ManagerEmployeeNumber and Number of employees working under the Manager (Exclude Null from ManagerEmployeeNumber column).

Select ManagerEmployeeNumber, count(employeenumber) from employee where ManagerEmployeeNumber is not null group by ManagerEmployeeNumber;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select ManagerEmployeeNumber, count(employeenumber) from employee where ManagerEmployeeNumber is not null group by ManagerEmployeeNumber;
+----------------------+----------------------+
| ManagerEmployeeNumber | count(employeenumber) |
+----------------------+----------------------+
|                 7001 |                    4 |
|                 7002 |                    1 |
|                 7003 |                    1 |
|                 7004 |                    1 |
|                 7005 |                    1 |
|                 7006 |                    1 |
|                 7007 |                    2 |
|                 7008 |                    2 |
|                 7009 |                    2 |
|                 7010 |                    2 |
+----------------------+----------------------+
10 rows in set (0.00 sec)

mysql>
```

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30. Display DepartmentCode and NumberOfEmployees if the department has more than 5 employees

Select DepartmentCode , count(employeeNumber) from employee group by departmentcode having count(employeenumber)>5;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select * from employee;
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | DESIGNATION | SALARY   | ManagerEmployeeNumber | DEPARTMENTCODE |
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
|           7001 | Cynthya      | 1975-05-12 | 1997-02-14   | CEO         | 840000.00 |                 7001 | NULL           |
|           7002 | Mario        | 1976-02-14 | 1998-04-16   | MD          | 525000.00 |                 7001 | JavaCap        |
|           7003 | Jacob        | 1976-03-16 | 1998-05-16   | MD          | 420000.00 |                 7001 | .NETCap        |
|           7004 | Lucy         | 1978-05-15 | 2000-07-15   | MD          | 441000.00 |                 7001 | LKM            |
|           7005 | Amy          | 1978-09-16 | 2000-11-16   | SM          | 252000.00 |                 7002 | JavaCap        |
|           7006 | Frank        | 1978-09-17 | 2000-09-19   | SM          | 231000.00 |                 7003 | .NETCap        |
|           7007 | Phil         | 1974-12-11 | 2000-11-12   | SM          | 231000.00 |                 7004 | LKM            |
|           7008 | Arnold       | 1984-03-13 | 2000-04-01   | TL          |  84000.00 |                 7005 | JavaCap        |
|           7009 | Jack         | 1984-09-13 | 2000-06-23   | TL          |  92400.00 |                 7006 | .NETCap        |
|           7010 | Justin       | 1984-11-07 | 2000-02-09   | TL          |  90300.00 |                 7007 | LKM            |
|           7011 | Megan        | 1984-07-21 | 2002-09-19   | TL          |  91350.00 |                 7007 | LKM            |
|           7012 | Stuart       | 1980-05-12 | 2016-05-22   | SSE         |  38587.50 |                 7008 | JavaCap        |
|           7013 | Clarke       | 1994-02-24 | 2016-05-22   | SSE         |  35280.00 |                 7008 | JavaCap        |
|           7014 | Darwin       | 1992-05-03 | 2016-05-22   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7015 | Chelsea      | 1994-01-19 | 2016-05-22   | SSE         |  41895.00 |                 7010 | LKM            |
|           7016 | Dan          | 1991-05-27 | 2016-06-07   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7017 | Jimmy        | 1993-08-11 | 2016-06-07   | SE          |  33600.00 |                 7010 | LKM            |
|           7018 | James        | 1993-12-19 | 2016-06-07   | SE          |  36750.00 |                 NULL | .NETCap        |
|           7019 | Joseph       | 1992-12-31 | 2016-06-07   | SE          |  31500.00 |                 NULL | .NETCap        |
+----------------+--------------+------------+--------------+-------------+----------+----------------------+----------------+
19 rows in set (0.00 sec)

mysql> Select DepartmentCode , count(employeeNumber) from employee group by departmentcode having count(employeenumber)>5;
+----------------+----------------------+
| DepartmentCode | count(employeeNumber) |
+----------------+----------------------+
| .NETCap        |                    7 |
| LKM            |                    6 |
+----------------+----------------------+
2 rows in set (0.00 sec)

mysql>
```

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31. Display DepartmentCode and average salary if the average salary of the department is more than INR150,000 (Exclude Null under DepartmentCode column)

Select DepartmentCode, avg(salary) from employee where departmentcode is not null group by departmentcode having avg(salary)>150000;

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select DepartmentCode, avg(salary) from employee where departmentcode is not null group by departmentcode having avg(salary)>150000;
+----------------+--------------+
| DepartmentCode | avg(salary)  |
+----------------+--------------+
| JavaCap        | 186973.500000 |
| LKM            | 154857.500000 |
+----------------+--------------+
2 rows in set (0.00 sec)

mysql>
```

32. Display Designation and average salary of each designation for "LKM" department if the average salary is more than INR 35,000. Display the results in the increasing order of average salary.

Select designation, avg(salary) from employee where departmentCode in (Select departmentcode from employee where departmentcode ='LKM') group by designation having avg(salary)>35000 order by avg(salary);

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select avg(salary),designation,departmentcode from employee where departmentcode = 'LKM' group by designation;
+--------------+-------------+----------------+
| avg(salary)  | designation | departmentcode |
+--------------+-------------+----------------+
| 441000.000000 | MD          | LKM            |
|  33600.000000 | SE          | LKM            |
| 231000.000000 | SM          | LKM            |
|  41895.000000 | SSE         | LKM            |
|  90825.000000 | TL          | LKM            |
+--------------+-------------+----------------+
5 rows in set (0.00 sec)

mysql> Select designation, avg(salary) from employee where departmentCode in (Select departmentcode from employee where departmentcode ='LKM') group by designation having a
vg(salary)>35000 order by avg(salary);
+-------------+--------------+
| designation | avg(salary)  |
+-------------+--------------+
| SSE         |  41895.000000 |
| TL          |  90825.000000 |
| SM          | 231000.000000 |
| MD          | 441000.000000 |
+-------------+--------------+
4 rows in set (0.00 sec)

mysql>
```

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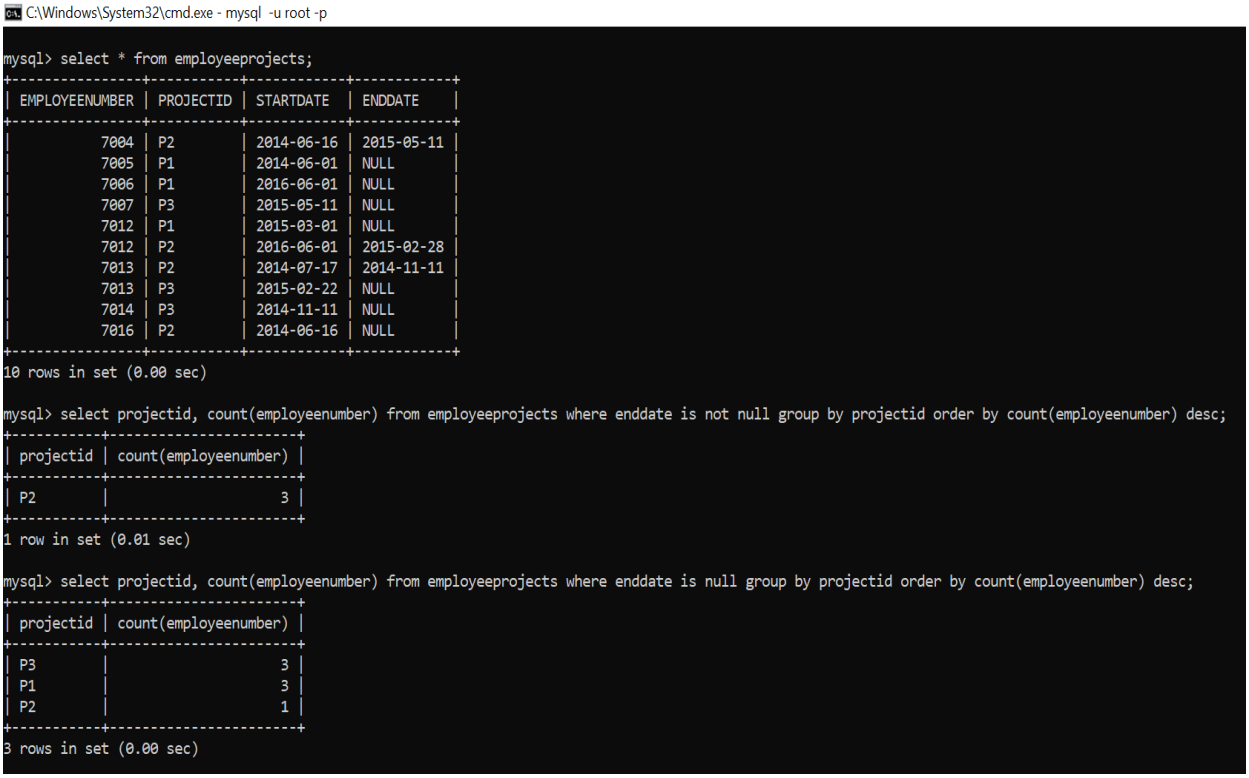
33. Display ProjectId, number of employees working in the project. Display the results in the decreasing order of number of employees (Exclude the results if the enddate is not null).

select projectid, count(employeenumber) from employeeprojects where enddate is null group by projectid order by count(employeenumber) desc;



```
C:\Windows\System32\cmd.exe - mysql  -u root -p

mysql> select * from employeeprojects;
+----------------+-----------+------------+------------+
| EMPLOYEENUMBER | PROJECTID | STARTDATE  | ENDDATE    |
+----------------+-----------+------------+------------+
|           7004 | P2        | 2014-06-16 | 2015-05-11 |
|           7005 | P1        | 2014-06-01 | NULL       |
|           7006 | P1        | 2016-06-01 | NULL       |
|           7007 | P3        | 2015-05-11 | NULL       |
|           7012 | P1        | 2015-03-01 | NULL       |
|           7012 | P2        | 2016-06-01 | 2015-02-28 |
|           7013 | P2        | 2014-07-17 | 2014-11-11 |
|           7013 | P3        | 2015-02-22 | NULL       |
|           7014 | P3        | 2014-11-11 | NULL       |
|           7016 | P2        | 2014-06-16 | NULL       |
+----------------+-----------+------------+------------+
10 rows in set (0.00 sec)

mysql> select projectid, count(employeenumber) from employeeprojects where enddate is not null group by projectid order by count(employeenumber) desc;
+-----------+-----------------------+
| projectid | count(employeenumber) |
+-----------+-----------------------+
| P2        |                     3 |
+-----------+-----------------------+
1 row in set (0.01 sec)

mysql> select projectid, count(employeenumber) from employeeprojects where enddate is null group by projectid order by count(employeenumber) desc;
+-----------+-----------------------+
| projectid | count(employeenumber) |
+-----------+-----------------------+
| P3        |                     3 |
| P1        |                     3 |
| P2        |                     1 |
+-----------+-----------------------+
3 rows in set (0.00 sec)
```

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Non-Correlated Subqueries

34. Display EmployeeName, Salary of employees whose salary is more than the average salary of the company.

Select employeename, salary from employee where salary >(Select avg(Salary) from employee);

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select * from employee;
+----------------+-------------+------------+--------------+-------------+----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | DESIGNATION | SALARY   | ManagerEmployeeNumber | DEPARTMENTCODE |
+----------------+-------------+------------+--------------+-------------+----------+----------------------+----------------+
|           7001 | Cynthya     | 1975-05-12 | 1997-02-14   | CEO         | 840000.00 |                 7001 | NULL           |
|           7002 | Mario       | 1976-02-14 | 1998-04-16   | MD          | 525000.00 |                 7001 | JavaCap        |
|           7003 | Jacob       | 1976-03-16 | 1998-05-16   | MD          | 420000.00 |                 7001 | .NETCap        |
|           7004 | Lucy        | 1978-05-15 | 2000-07-15   | MD          | 441000.00 |                 7001 | LKM            |
|           7005 | Amy         | 1978-09-16 | 2000-11-16   | SM          | 252000.00 |                 7002 | JavaCap        |
|           7006 | Frank       | 1978-09-17 | 2000-09-19   | SM          | 231000.00 |                 7003 | .NETCap        |
|           7007 | Phil        | 1974-12-11 | 2000-11-12   | SM          | 231000.00 |                 7004 | LKM            |
|           7008 | Arnold      | 1984-03-13 | 2000-04-01   | TL          |  84000.00 |                 7005 | JavaCap        |
|           7009 | Jack        | 1984-09-13 | 2000-06-23   | TL          |  92400.00 |                 7006 | .NETCap        |
|           7010 | Justin      | 1984-11-07 | 2000-02-09   | TL          |  90300.00 |                 7007 | LKM            |
|           7011 | Megan       | 1984-07-21 | 2002-09-19   | TL          |  91350.00 |                 7007 | LKM            |
|           7012 | Stuart      | 1980-05-12 | 2016-05-22   | SSE         |  38587.50 |                 7008 | JavaCap        |
|           7013 | Clarke      | 1994-02-24 | 2016-05-22   | SSE         |  35280.00 |                 7008 | JavaCap        |
|           7014 | Darwin      | 1992-05-03 | 2016-05-22   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7015 | Chelsea     | 1994-01-19 | 2016-05-22   | SSE         |  41895.00 |                 7010 | LKM            |
|           7016 | Dan         | 1991-05-27 | 2016-06-07   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7017 | Jimmy       | 1993-08-11 | 2016-06-07   | SE          |  33600.00 |                 7010 | LKM            |
|           7018 | James       | 1993-12-19 | 2016-06-07   | SE          |  36750.00 |                 NULL | .NETCap        |
|           7019 | Joseph      | 1992-12-31 | 2016-06-07   | SE          |  31500.00 |                 NULL | .NETCap        |
+----------------+-------------+------------+--------------+-------------+----------+----------------------+----------------+
19 rows in set (0.00 sec)

mysql> Select employeename, salary from employee where salary >(Select avg(Salary) from employee);
+-------------+----------+
| employeename | salary   |
+-------------+----------+
| Cynthya     | 840000.00 |
| Mario       | 525000.00 |
| Jacob       | 420000.00 |
| Lucy        | 441000.00 |
| Amy         | 252000.00 |
| Frank       | 231000.00 |
| Phil        | 231000.00 |
+-------------+----------+
7 rows in set (0.00 sec)
```

35. Display EmployeeName, Salary of employee(s) who is getting the lowest salary in the company.

Select employeeName, salary from employee where salary = (Select min(salary) from employee);

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select employeeName, salary from employee where salary = (Select min(salary) from employee);
+--------------+----------+
| employeeName | salary   |
+--------------+----------+
| Darwin       | 31500.00 |
| Dan          | 31500.00 |
| Joseph       | 31500.00 |
+--------------+----------+
3 rows in set (0.00 sec)

mysql>
```

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36. Display EmployeeName of employees who are working in project ‘P1’.

Select employeename,projectId from employee join employeeprojects on employee.employeenumber = employeeprojects.employeenumber where employeeprojects.projectid = 'P1';

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select * from employee;
+----------------+--------------+-------------+--------------+-------------+----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | DESIGNATION | SALARY   | ManagerEmployeeNumber | DEPARTMENTCODE |
+----------------+--------------+-------------+--------------+-------------+----------+----------------------+----------------+
|           7001 | Cynthya      | 1975-05-12  | 1997-02-14   | CEO         | 840000.00 |                 7001 | NULL           |
|           7002 | Mario        | 1976-02-14  | 1998-04-16   | MD          | 525000.00 |                 7001 | JavaCap        |
|           7003 | Jacob        | 1976-03-16  | 1998-05-16   | MD          | 420000.00 |                 7001 | .NETCap        |
|           7004 | Lucy         | 1978-05-15  | 2000-07-15   | MD          | 441000.00 |                 7001 | LKM            |
|           7005 | Amy          | 1978-09-16  | 2000-11-16   | SM          | 252000.00 |                 7002 | JavaCap        |
|           7006 | Frank        | 1978-09-17  | 2000-09-19   | SM          | 231000.00 |                 7003 | .NETCap        |
|           7007 | Phil         | 1974-12-11  | 2000-11-12   | SM          | 231000.00 |                 7004 | LKM            |
|           7008 | Arnold       | 1984-03-13  | 2000-04-01   | TL          |  84000.00 |                 7005 | JavaCap        |
|           7009 | Jack         | 1984-09-13  | 2000-06-23   | TL          |  92400.00 |                 7006 | .NETCap        |
|           7010 | Justin       | 1984-11-07  | 2000-02-09   | TL          |  90300.00 |                 7007 | LKM            |
|           7011 | Megan        | 1984-07-21  | 2002-09-19   | TL          |  91350.00 |                 7007 | LKM            |
|           7012 | Stuart       | 1980-05-12  | 2016-05-22   | SSE         |  38587.50 |                 7008 | JavaCap        |
|           7013 | Clarke       | 1994-02-24  | 2016-05-22   | SSE         |  35280.00 |                 7008 | JavaCap        |
|           7014 | Darwin       | 1992-05-03  | 2016-05-22   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7015 | Chelsea      | 1994-01-19  | 2016-05-22   | SSE         |  41895.00 |                 7010 | LKM            |
|           7016 | Dan          | 1991-05-27  | 2016-06-07   | SE          |  31500.00 |                 7009 | .NETCap        |
|           7017 | Jimmy        | 1993-08-11  | 2016-06-07   | SE          |  33600.00 |                 7010 | LKM            |
|           7018 | James        | 1993-12-19  | 2016-06-07   | SE          |  36750.00 |                 NULL | .NETCap        |
|           7019 | Joseph       | 1992-12-31  | 2016-06-07   | SE          |  31500.00 |                 NULL | .NETCap        |
+----------------+--------------+-------------+--------------+-------------+----------+----------------------+----------------+
19 rows in set (0.00 sec)

mysql> select * from employeeprojects;
+----------------+-----------+------------+------------+
| EMPLOYEENUMBER | PROJECTID | STARTDATE  | ENDDATE    |
+----------------+-----------+------------+------------+
|           7004 | P2        | 2014-06-16 | 2015-05-11 |
|           7005 | P1        | 2014-06-01 | NULL       |
|           7006 | P1        | 2016-06-01 | NULL       |
|           7007 | P3        | 2015-05-11 | NULL       |
|           7012 | P1        | 2015-03-01 | NULL       |
|           7012 | P2        | 2016-06-01 | 2015-02-28 |
|           7013 | P2        | 2014-07-17 | 2014-11-11 |
|           7013 | P3        | 2015-02-22 | NULL       |
|           7014 | P3        | 2014-11-11 | NULL       |
|           7016 | P2        | 2014-06-16 | NULL       |
+----------------+-----------+------------+------------+
```

Type here to search 19°C

C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> Select employeename,projectId from employee join employeeprojects on employee.employeenumber = employeeprojects.employeenumber where employeeprojects.projectid = 'P1
';
+--------------+-----------+
| employeename | projectId |
+--------------+-----------+
| Amy          | P1        |
| Frank        | P1        |
| Stuart       | P1        |
+--------------+-----------+
3 rows in set (0.00 sec)
```

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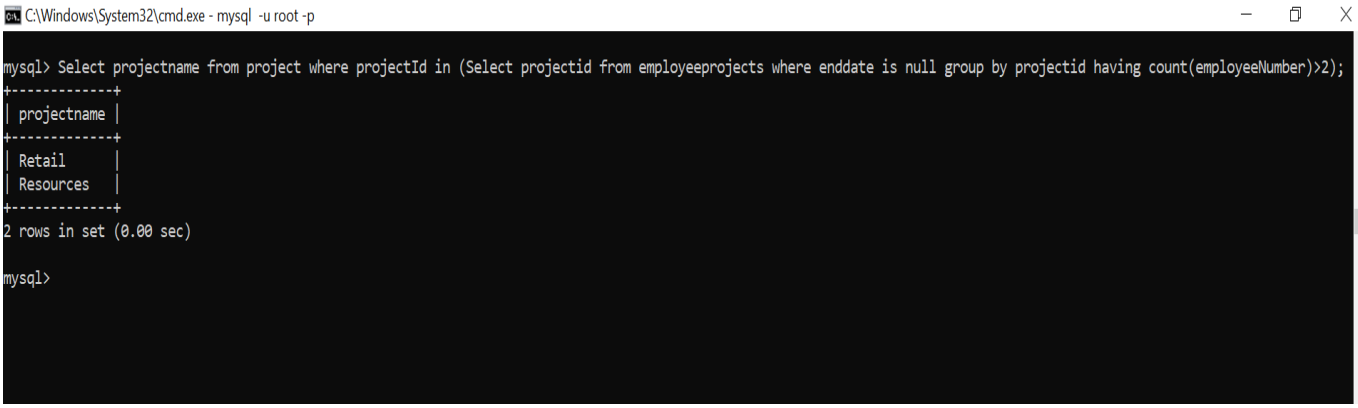
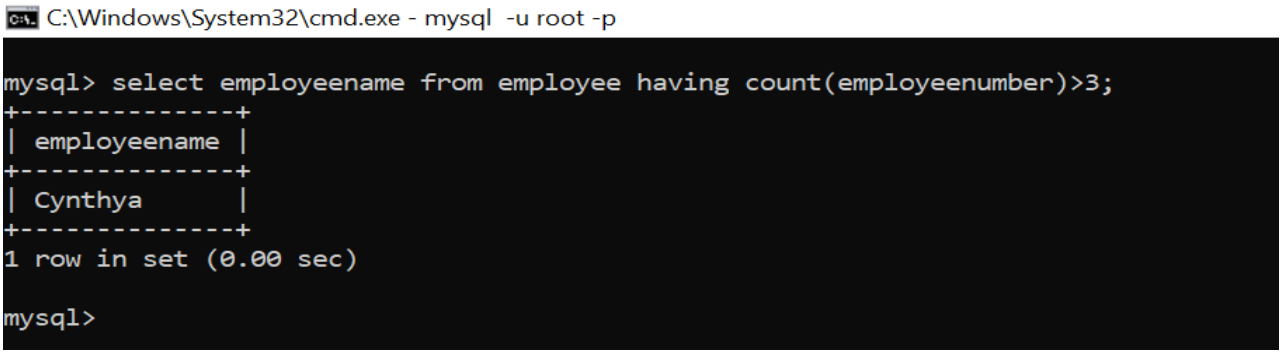
37. Display ProjectName of projects which has more than 2 employees (Exclude rows if end date is not null).

Select projectname from project where projectId in (Select projectid from employeeprojects where enddate is null group by projectid having count(employeeNumber)>2);

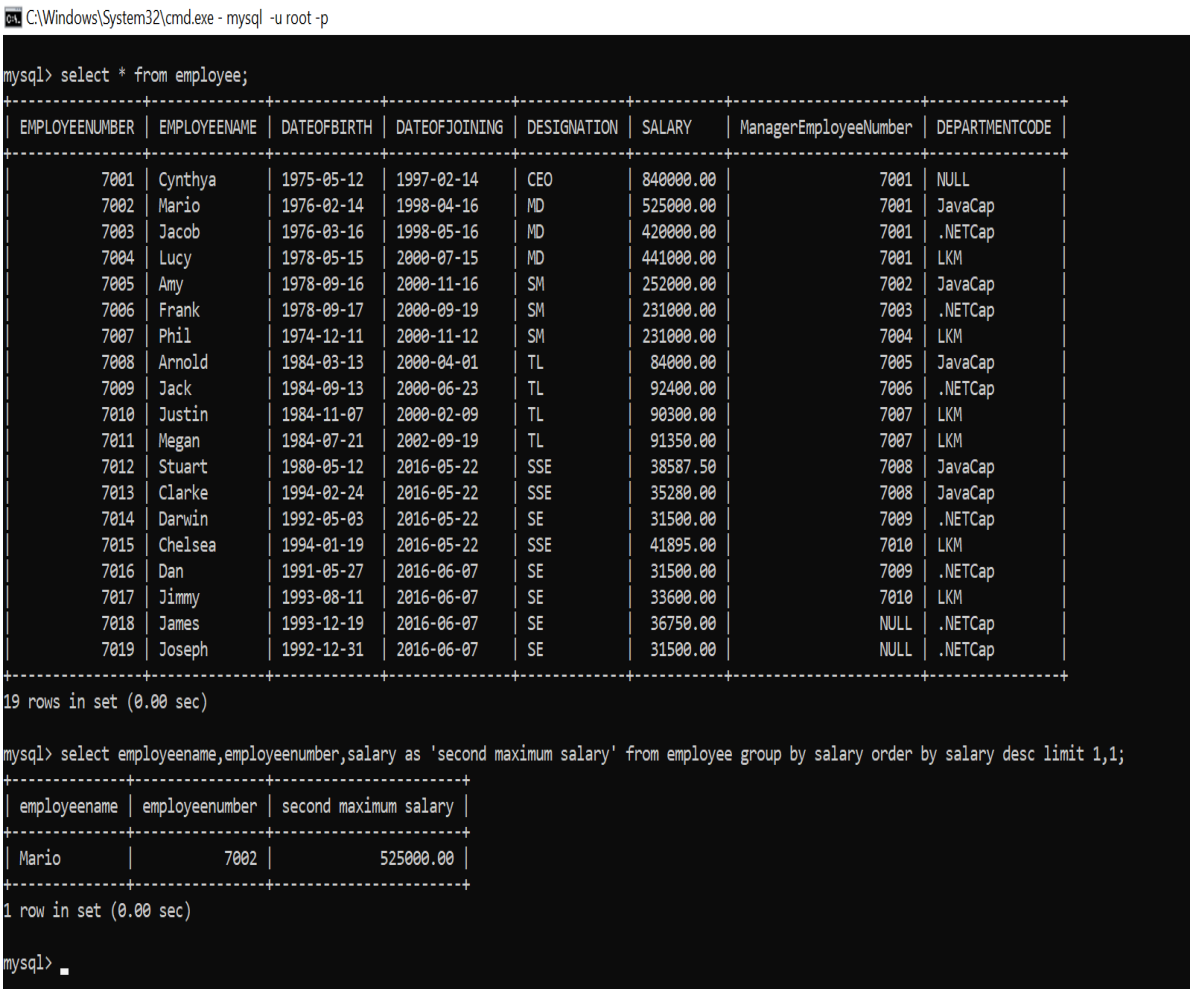


38. Display EmployeeName of Managers who have more than three team members.



39. Display the second maximum salary of the company.

select employeename, employeenumber, salary as 'second maximum salary' from employee group by salary order by salary desc limit 1,1;



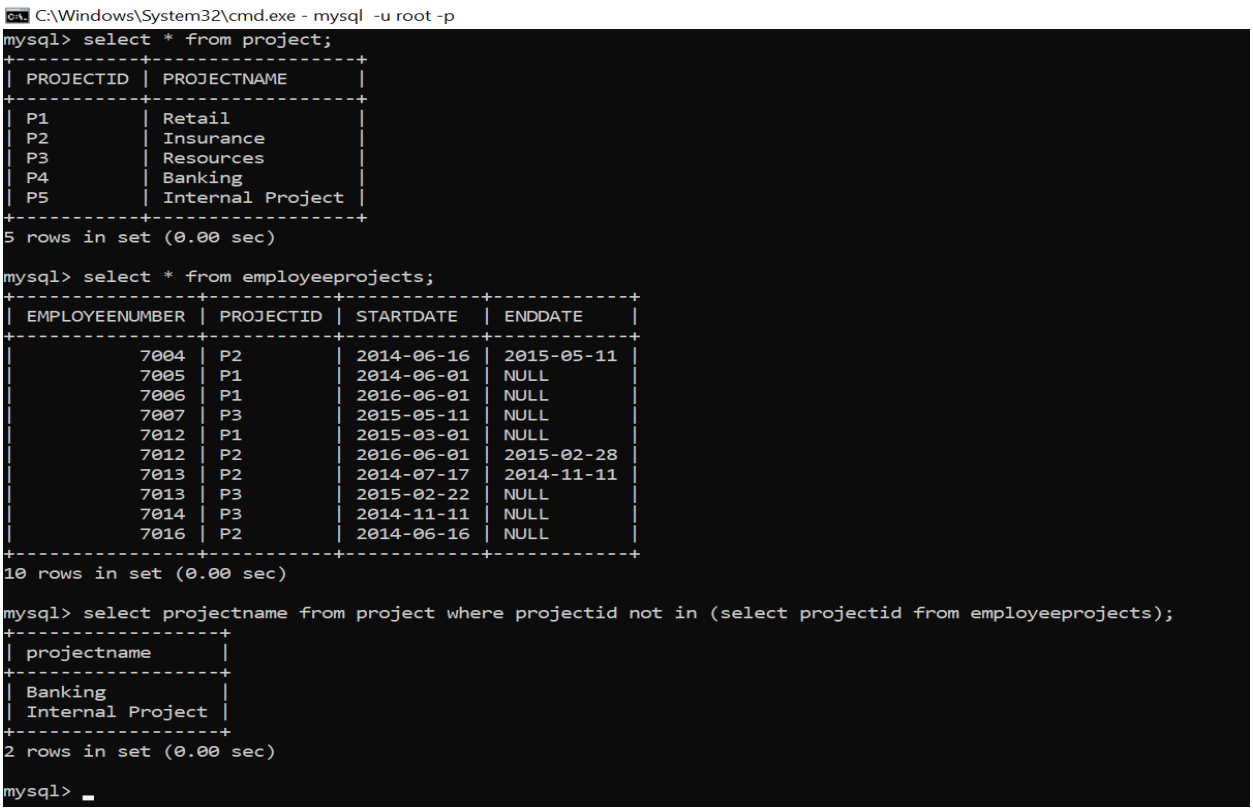
C:\Windows\System32\cmd.exe - mysql -u root -p

```
mysql> select * from employee;
+----------------+--------------+-------------+---------------+-------------+-----------+----------------------+----------------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | DESIGNATION | SALARY    | ManagerEmployeeNumber | DEPARTMENTCODE |
+----------------+--------------+-------------+---------------+-------------+-----------+----------------------+----------------+
|           7001 | Cynthya      | 1975-05-12  | 1997-02-14    | CEO         | 840000.00 |                 7001 | NULL           |
|           7002 | Mario        | 1976-02-14  | 1998-04-16    | MD          | 525000.00 |                 7001 | JavaCap        |
|           7003 | Jacob        | 1976-03-16  | 1998-05-16    | MD          | 420000.00 |                 7001 | .NETCap        |
|           7004 | Lucy         | 1978-05-15  | 2000-07-15    | MD          | 441000.00 |                 7001 | LKM            |
|           7005 | Amy          | 1978-09-16  | 2000-11-16    | SM          | 252000.00 |                 7002 | JavaCap        |
|           7006 | Frank        | 1978-09-17  | 2000-09-19    | SM          | 231000.00 |                 7003 | .NETCap        |
|           7007 | Phil         | 1974-12-11  | 2000-11-12    | SM          | 231000.00 |                 7004 | LKM            |
|           7008 | Arnold       | 1984-03-13  | 2000-04-01    | TL          |  84000.00 |                 7005 | JavaCap        |
|           7009 | Jack         | 1984-09-13  | 2000-06-23    | TL          |  92400.00 |                 7006 | .NETCap        |
|           7010 | Justin       | 1984-11-07  | 2000-02-09    | TL          |  90300.00 |                 7007 | LKM            |
|           7011 | Megan        | 1984-07-21  | 2002-09-19    | TL          |  91350.00 |                 7007 | LKM            |
|           7012 | Stuart       | 1980-05-12  | 2016-05-22    | SSE         |  38587.50 |                 7008 | JavaCap        |
|           7013 | Clarke       | 1994-02-24  | 2016-05-22    | SSE         |  35280.00 |                 7008 | JavaCap        |
|           7014 | Darwin       | 1992-05-03  | 2016-05-22    | SE          |  31500.00 |                 7009 | .NETCap        |
|           7015 | Chelsea      | 1994-01-19  | 2016-05-22    | SSE         |  41895.00 |                 7010 | LKM            |
|           7016 | Dan          | 1991-05-27  | 2016-06-07    | SE          |  31500.00 |                 7009 | .NETCap        |
|           7017 | Jimmy        | 1993-08-11  | 2016-06-07    | SE          |  33600.00 |                 7010 | LKM            |
|           7018 | James        | 1993-12-19  | 2016-06-07    | SE          |  36750.00 |                 NULL | .NETCap        |
|           7019 | Joseph       | 1992-12-31  | 2016-06-07    | SE          |  31500.00 |                 NULL | .NETCap        |
+----------------+--------------+-------------+---------------+-------------+-----------+----------------------+----------------+
19 rows in set (0.00 sec)

mysql> select employeename,employeenumber,salary as 'second maximum salary' from employee group by salary order by salary desc limit 1,1;
+--------------+----------------+----------------------+
| employeename | employeenumber | second maximum salary |
+--------------+----------------+----------------------+
| Mario        |           7002 |            525000.00 |
+--------------+----------------+----------------------+
1 row in set (0.00 sec)

mysql>
```

Or SELECT employeename, MAX(salary) AS salary FROM employee WHERE salary <> (SELECT MAX(salary) FROM employee);

40. Display the ProjectName of projects which currently does not have any employees.

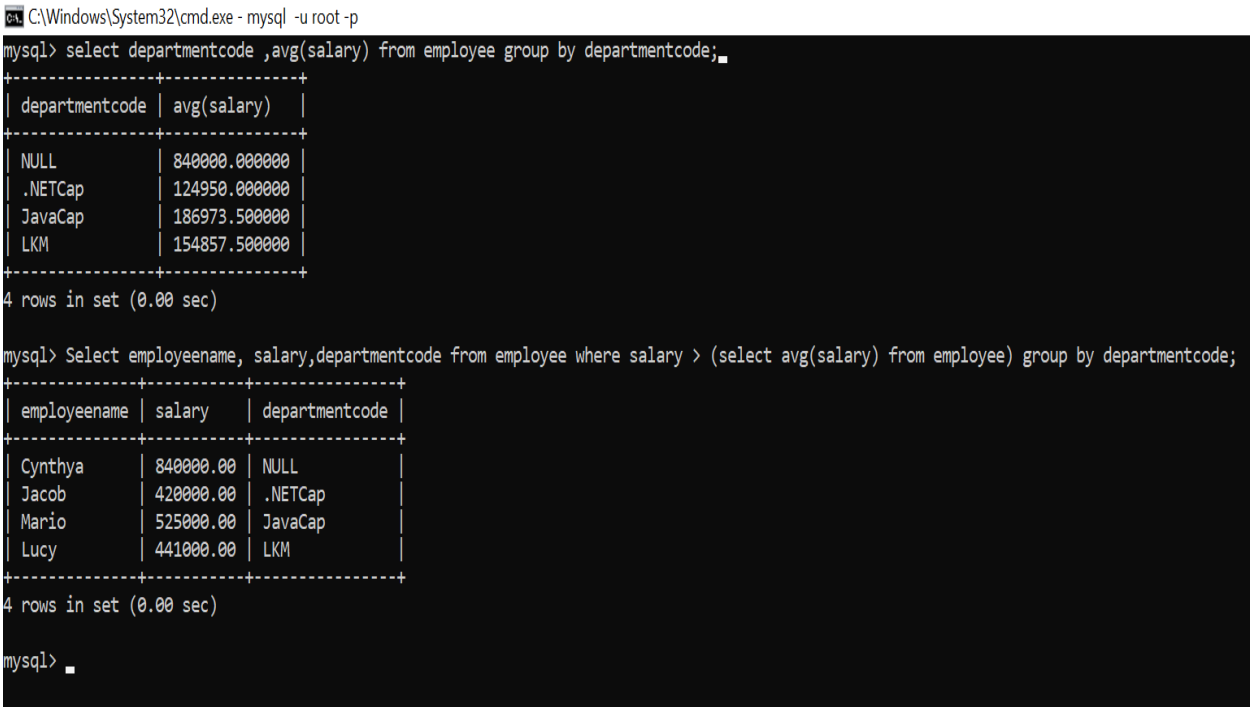
select projectname from project where projectid not in (select projectid from employeeprojects);



Correlated Subqueries

41. Display EmployeeName, Salary of employees whose salary is more than the average salary of the department they belong to.

Select employeename, salary,departmentcode from employee where salary > (select avg(salary) from employee) group by departmentcode;



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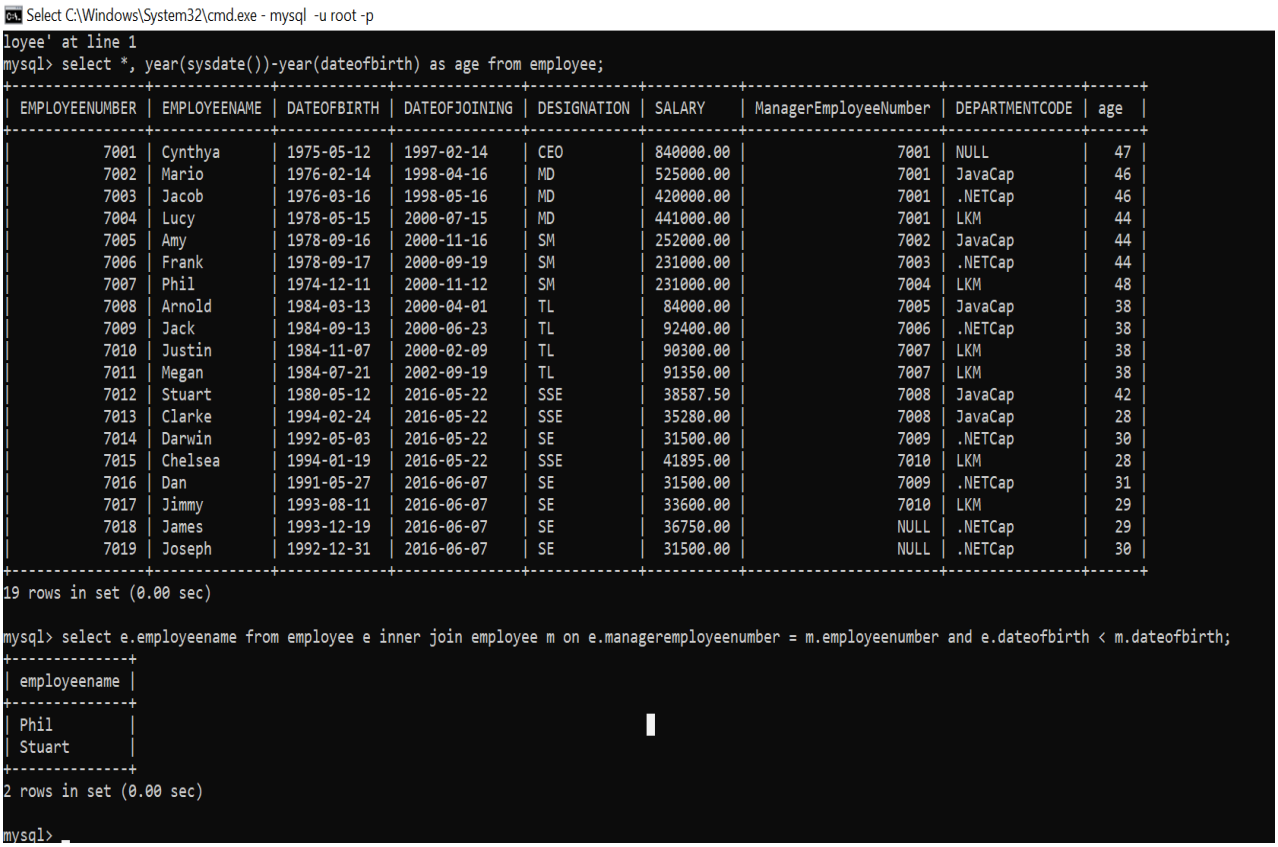
42. Display EmployeeName of employees whose manager is younger than the employee.

select e.employeename from employee e inner join employee m on e.manageremployeenumber = m.employeenumber and e.dateofbirth < m.dateofbirth;



```
Select C:\Windows\System32\cmd.exe - mysql  -u root -p
loyee' at line 1
mysql> select *, year(sysdate())-year(dateofbirth) as age from employee;
+---------------+-------------+------------+--------------+-------------+----------+----------------------+----------------+------+
| EMPLOYEENUMBER | EMPLOYEENAME | DATEOFBIRTH | DATEOFJOINING | DESIGNATION | SALARY    | ManagerEmployeeNumber | DEPARTMENTCODE | age  |
+---------------+-------------+------------+--------------+-------------+----------+----------------------+----------------+------+
|          7001 | Cynthya      | 1975-05-12  | 1997-02-14    | CEO         | 840000.00 |                 7001 | NULL           |   47 |
|          7002 | Mario        | 1976-02-14  | 1998-04-16    | MD          | 525000.00 |                 7001 | JavaCap        |   46 |
|          7003 | Jacob        | 1976-03-16  | 1998-05-16    | MD          | 420000.00 |                 7001 | .NETCap        |   46 |
|          7004 | Lucy         | 1978-05-15  | 2000-07-15    | MD          | 441000.00 |                 7001 | LKM            |   44 |
|          7005 | Amy          | 1978-09-16  | 2000-11-16    | SM          | 252000.00 |                 7002 | JavaCap        |   44 |
|          7006 | Frank        | 1978-09-17  | 2000-09-19    | SM          | 231000.00 |                 7003 | .NETCap        |   44 |
|          7007 | Phil         | 1974-12-11  | 2000-11-12    | SM          | 231000.00 |                 7004 | LKM            |   48 |
|          7008 | Arnold       | 1984-03-13  | 2000-04-01    | TL          |  84000.00 |                 7005 | JavaCap        |   38 |
|          7009 | Jack         | 1984-09-13  | 2000-06-23    | TL          |  92400.00 |                 7006 | .NETCap        |   38 |
|          7010 | Justin       | 1984-11-07  | 2000-02-09    | TL          |  90300.00 |                 7007 | LKM            |   38 |
|          7011 | Megan        | 1984-07-21  | 2002-09-19    | TL          |  91350.00 |                 7007 | LKM            |   38 |
|          7012 | Stuart       | 1980-05-12  | 2016-05-22    | SSE         |  38587.50 |                 7008 | JavaCap        |   42 |
|          7013 | Clarke       | 1994-02-24  | 2016-05-22    | SSE         |  35280.00 |                 7008 | JavaCap        |   28 |
|          7014 | Darwin       | 1992-05-03  | 2016-05-22    | SE          |  31500.00 |                 7009 | .NETCap        |   30 |
|          7015 | Chelsea      | 1994-01-19  | 2016-05-22    | SSE         |  41895.00 |                 7010 | LKM            |   28 |
|          7016 | Dan          | 1991-05-27  | 2016-06-07    | SE          |  31500.00 |                 7009 | .NETCap        |   31 |
|          7017 | Jimmy        | 1993-08-11  | 2016-06-07    | SE          |  33600.00 |                 7010 | LKM            |   29 |
|          7018 | James        | 1993-12-19  | 2016-06-07    | SE          |  36750.00 |                 NULL | .NETCap        |   29 |
|          7019 | Joseph       | 1992-12-31  | 2016-06-07    | SE          |  31500.00 |                 NULL | .NETCap        |   30 |
+---------------+-------------+------------+--------------+-------------+----------+----------------------+----------------+------+
19 rows in set (0.00 sec)

mysql> select e.employeename from employee e inner join employee m on e.manageremployeenumber = m.employeenumber and e.dateofbirth < m.dateofbirth;
+--------------+
| employeename |
+--------------+
| Phil         |
| Stuart       |
+--------------+
2 rows in set (0.00 sec)

mysql>
```

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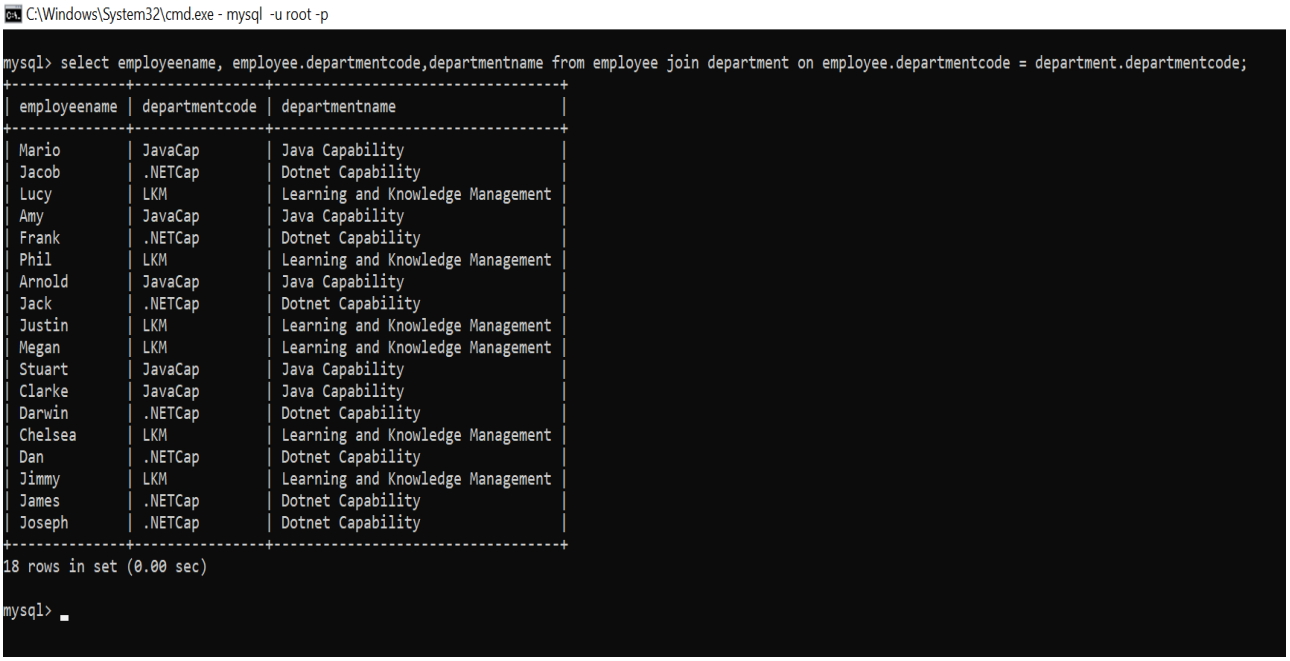
Inner Join

43. Display EmployeeName, DepartmentCode and DepartmentName of ALL employees.

select employeename, employee.departmentcode,departmentname from employee join department on employee.departmentcode = department.departmentcode;



44. Display EmployeeName, ProjectName and StartDate of employees who are currently working on the project (include only if EndDate is NULL).

select employeename, projectname,startdate from employee e join employeeprojects ep on e.employeenumber = ep.employeenumber join project p on p.projectid = ep.projectid where enddate is null;

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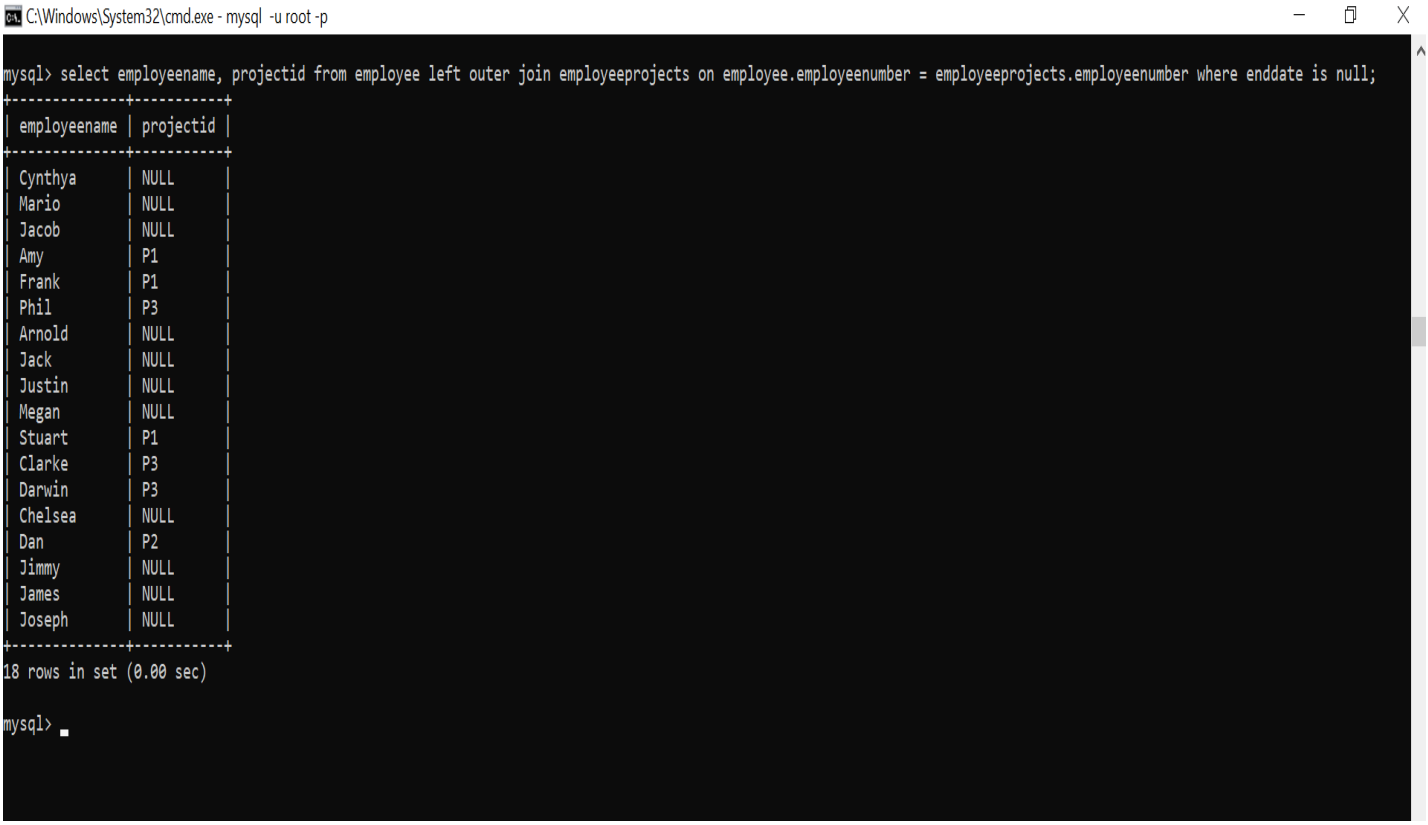
Outer Join

45. Display EmployeeName, ProjectId of ALL employees even if an employee is not assigned to any project (Include only if EndDate is Null).

select employeename, projectid from employee left outer join employeeprojects on employee.employeenumber = employeeprojects.employeenumber where enddate is null;



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46. Display EmployeeName, ProjectId of ALL employees even if an employee not assigned to any project (Include only if EndDate is Null). Display "Not Allocated" if ProjectId is null.

select employeename, coalesce(employeeprojects.projectid,'Not Allocated') from employee left outer join employeeprojects on employee.employeenumber = employeeprojects.employeenumber where enddate is null;

Divya Shukla
EmpId-46120380

SELF Join

47. Display EmployeeName, DateOfBirth of Employee, ManagerName and DateOfBirth of Manager.

Select e.employeename as 'manager name',e.dateofbirth as 'manager date of birth', m.employeename as 'employee name' ,m.dateofbirth as 'employee date of birth' from employee e, employee m where m.manageremployeenumber=e.employeenumber;