



Atma Ram Sanatan Dharma College

University of Delhi



Database Management Systems

Lab Assignment – 3

(Query 31 - 42)

Date: 22/02/2021

Submitted By -

Anshul Verma

Roll No. – 19/78065

B.Sc. (Hons.) Computer Science

Submitted To -

Mrs. Manisha Bagri

Department of Computer Science

Query 31

Query to display the total number of supervisors without listing their names.

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT COUNT(DISTINCT SupervisonENO)
-> AS 'Total No. of Supervisors'
-> FROM EMPLOYEE;

+-----+
| Total No. of Supervisors |
+-----+
| 7 |
+-----+
1 row in set (0.0008 sec)
MySQL localhost:33060+ ssl emp_dept SQL >
```

Query 32

Query to display the Department Name, Location Name, No. of Employees and the average salary for all employees in that department.

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT D.Dname, D.Location,
-> COUNT(*) AS 'No of Employees',
-> AVG(E.Salary) AS 'Average of Salaries'
-> FROM DEPARTMENT AS D, EMPLOYEE AS E
-> WHERE D.Dno = E.Dno
-> GROUP BY E.Dno;

+-----+-----+-----+-----+
| Dname | Location | No of Employees | Average of Salaries |
+-----+-----+-----+-----+
| Research | Hyderabad | 3 | 2783.333333 |
| Sales | New Delhi | 8 | 3127.500000 |
| Marketing | Mumbai | 3 | 3070.000000 |
| Tech | Bangalore | 3 | 2666.666667 |
| Accounting | Dallas | 2 | 2800.000000 |
| Purchase | Dallas | 4 | 3075.000000 |
+-----+-----+-----+-----+
6 rows in set (0.0131 sec)
MySQL localhost:33060+ ssl emp_dept SQL >
```

Query 33

Query to display Name and Hire Date for all employees in the same dept. as Blake.

Populating the table

```
MySQL localhost:33060+ ssl emp_dept SQL > INSERT INTO EMPLOYEE
-> VALUES('786','Blake','Clerk','540','1996-08-21',20,159.54,2570.99);
Query OK, 1 row affected (0.0439 sec)
```

Main Query

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT Ename, Hire_date FROM EMPLOYEE
-> WHERE Dno = (SELECT Dno FROM EMPLOYEE
-> WHERE Ename = "Blake") AND Ename != "Blake";

+-----+-----+
| Ename      | Hire_date |
+-----+-----+
| Ramit Verma | 1981-09-07 |
| Tanushi Shah | 1983-07-14 |
| Pranav Bhatia | 1990-10-15 |
| Hardik Mittal | 1981-03-21 |
| Shivani Gujjar | 1981-11-15 |
| Abhishek Garg | 1995-07-01 |
| Jeevan Prabhu | 2000-01-01 |
| John Stephen | 1998-03-25 |
+-----+-----+
8 rows in set (0.0011 sec)
MySQL localhost:33060+ ssl emp_dept SQL >
```

Query 34

Query to display the Employee No. And Name for all employees who earn more than the average salary.

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT Eno, EName FROM EMPLOYEE
-> WHERE Salary >
-> (SELECT AVG(Salary) FROM EMPLOYEE);
```

Eno	EName
500	Albus Dumbledore
533	Ramit Verma
540	Tanushi Shah
563	Manshi Arora
584	George Williams
732	Manav Goel
738	Nandita Nagar
767	Krunaal Gautam
778	Raghuram Singh
781	Jeevan Prabhu
784	John Stephen
790	Koyal Shah
791	Rajnikant Singh

```
13 rows in set (0.0009 sec)
MySQL localhost:33060+ ssl emp_dept SQL >
```

Query 35

Query to display Employee Number and Name for all employees who work in a department with any employee whose name contains a 'T'.

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT Eno, Ename FROM EMPLOYEE
-> WHERE Dno IN (SELECT Dno FROM EMPLOYEE
-> WHERE Ename LIKE "%T%");
```

Eno	Ename
533	Ramit Verma
540	Tanushi Shah
703	Pranav Bhatia
731	Hardik Mittal
733	Shivani Gujjar
741	Abhishek Garg
781	Jeevan Prabhu
784	John Stephen
786	Blake
727	Mariyam Dixit
778	Raghuram Singh
584	George Williams
738	Nandita Nagar
747	Naveen Pollishetty
777	Uday Munshi
563	Manshi Arora
709	Anil Kumar
767	Krunaal Gautam
726	Kashish Brar
732	Manav Goel
791	Rajnikant Singh
790	Koyal Shah
803	George Xavier
805	Amarjeet Kaul

```
24 rows in set (0.0013 sec)
MySQL localhost:33060+ ssl emp_dept SQL >
```

Query 36

Query to display the names and salaries of all employees who report to supervisor named 'King'.

Populating values in the table

```
MySQL localhost:33060+ ssl emp_dept SQL > INSERT INTO EMPLOYEE
-> VALUES('586','King','Manager','500','1996-08-21',20,159.54,2570.99),
-> ('780','Bhavesh Joshi','Clerk','586','1999-08-13',20,200.00,2140.00),
-> ('785','Pitbull','Salesman','586','2000-11-01',20,1590.50,3164.00),
-> ('795','Enrique Iglesias','Salesman','586','1993-04-21',20,1130.54,3350.50),
-> ('770','Gajendra Verma','Accountant','586','1995-02-05',20,69.99,3570.45),
-> ('809','Aisha Takia','Salesman','586','2004-04-05',20,2500.64,1940.00),
-> ('807','Prateek Kuhad','Analyst','586','2006-09-07',20,10.00,2670.59);

Query OK, 7 rows affected (0.0118 sec)

Records: 7 Duplicates: 0 Warnings: 0
```

Main Query

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT E1.Ename, E1.Salary
-> FROM EMPLOYEE AS E1, EMPLOYEE AS E2
-> WHERE E1.SupervisorNO=E2.Eno AND
-> E2.Ename = "King";

+-----+-----+
| Ename          | Salary |
+-----+-----+
| Gajendra Verma | 3570.45 |
| Bhavesh Joshi  | 2140.00 |
| Pitbull        | 3164.00 |
| Enrique Iglesias | 3350.50 |
| Prateek Kuhad  | 2670.59 |
| Aisha Takia    | 1940.00 |
+-----+-----+
6 rows in set (0.0010 sec)

MySQL localhost:33060+ ssl emp_dept SQL > 
```

Query 37

Query to display the department no, name and job for all employees in the Sales department.

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT D.Dno, E.Ename, E.Job_type
-> FROM DEPARTMENT AS D, EMPLOYEE AS E
-> WHERE E.Dno = D.Dno
-> AND D.Dname = "Sales";
```

Dno	Ename	Job_type
20	Ramit Verma	Manager
20	Tanushi Shah	Manager
20	King	Manager
20	Pranav Bhatia	Clerk
20	Hardik Mittal	Salesman
20	Shivani Gujjar	Salesman
20	Abhishek Garg	Analyst
20	Gajendra Verma	Accountant
20	Bhaves Josh	Clerk
20	Jeevan Prabhu	Salesman
20	John Stephen	Salesman
20	Pitbull	Salesman
20	Blake	Clerk
20	Enrique Iglesias	Salesman
20	Prateek Kuhad	Analyst
20	Aisha Takia	Salesman

```
16 rows in set (0.0010 sec)
MySQL localhost:33060+ ssl emp_dept SQL >
```

Query 38

Display names of employees along with their department name who have more than 20 years of experience.

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT E.Ename, D.Dname
-> FROM EMPLOYEE AS E, DEPARTMENT AS D
-> WHERE E.Dno = D.Dno AND
-> YEAR(FROM_DAYS(
-> DATEDIFF(CURDATE(), Hire_date))) > 20;
```

Ename	Dname
Manshi Arora	Research
Krunaal Gautam	Research
Ramit Verma	Sales
Tanushi Shah	Sales
King	Sales
Pranav Bhatia	Sales
Hardik Mittal	Sales
Shivani Gujjar	Sales
Abhishek Garg	Sales
Gajendra Verma	Sales
Bhavesht Josht	Sales
Jeevan Prabhu	Sales
John Stephen	Sales
Blake	Sales
Enrique Iglesias	Sales
Kashish Brar	Marketing
Manav Goel	Marketing
Rajnikant Singh	Marketing
Koyal Shah	Tech
Raghuram Singh	Accounting
George Williams	Purchase
Nandita Nagar	Purchase
Naveen Pollishetty	Purchase

23 rows in set (0.0010 sec)

Query 39

Display total number of departments at each location.

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT COUNT(*) AS 'No. of departments',
      -> Location FROM DEPARTMENT
      -> GROUP BY Location;

+-----+-----+
| No. of departments | Location |
+-----+-----+
| 1                  | Hyderabad |
| 1                  | New Delhi |
| 1                  | Mumbai    |
| 1                  | Bangalore |
| 2                  | Dallas    |
| 1                  | Noida     |
+-----+-----+
6 rows in set (0.0009 sec)
MySQL localhost:33060+ ssl emp_dept SQL > |
```

Query 40

Find the department name in which at least 20 employees work in.

```
MySQL localhost:33060+ ssl emp_dept SQL > INSERT INTO EMPLOYEE
      -> VALUES('742','Kunal Khemu','Salesman','586','1999-08-13',20,200.00,2140.00),
      -> ('743','Chris Brown','Salesman','533','2000-11-01',20,1590.50,3164.00),
      -> ('739','Drake','Salesman','540','1993-04-21',20,1130.54,3350.50),
      -> ('735','Arijit Singh','Accountant','540','1995-02-05',20,69.99,3570.45),
      -> ('757','Ram Sampath','Salesman','586','2004-04-21',20,2500.64,1940.00),
      -> ('750','Anweshaa','Analyst','540','2006-09-21',20,10.00,2670.59);

Query OK, 6 rows affected (0.0035 sec)

Records: 6 Duplicates: 0 Warnings: 0
```

Main Query

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT D.Dname, COUNT(*)
      -> FROM DEPARTMENT AS D, EMPLOYEE AS E
      -> WHERE D.Dno = E.Dno
      -> GROUP BY E.Dno HAVING COUNT(*) >= 20;

+-----+-----+
| Dname | COUNT(*) |
+-----+-----+
| Sales |      22 |
+-----+-----+
1 row in set (0.0110 sec)
MySQL localhost:33060+ ssl emp_dept SQL > |
```

Query 41

Query to find the employee' name who is not supervisor and name of supervisor supervising more than 5 employees.

```
MySQL localhost:33060+ ssl emp_dept SQL > SELECT E1.ename FROM EMPLOYEE E1
-> WHERE NOT EXISTS
-> (SELECT * FROM EMPLOYEE E2
-> WHERE E1.ename = E2.supervisor_ename)
-> UNION
-> SELECT ename FROM EMPLOYEE
-> WHERE ename IN
-> (SELECT supervisor_ename FROM EMPLOYEE
-> GROUP BY supervisor_ename
-> HAVING COUNT(*) > 5);
```

```
+-----+
| ename |
+-----+
| Pranav Bhatia |
| Anil Kumar |
| Kashish Brar |
| Mariyam Dixit |
| Hardik Mittal |
| Manav Goel |
| Shivani Gujjar |
| Arijit Singh |
| Nandita Nagar |
| Drake |
| Abhishek Garg |
| Kunal Khemu |
| Chris Brown |
| Naveen Pollishetty |
| Anweshaa |
| Ram Sampath |
| Krunaal Gautam |
| Gajendra Verma |
| Uday Munshi |
| Bhavesh Joshi |
| Jeevan Prabhu |
| John Stephen |
| Pitbull |
| Blake |
| Koyal Shah |
| Enrique Iglesias |
| George Xavier |
| Amarjeet Kaul |
| Prateek Kuhad |
| Aisha Takia |
| Albus Dumbledore |
| Tanushi Shah |
| King |
+-----+
```

33 rows in set (0.0105 sec)

```
MySQL localhost:33060+ ssl emp_dept SQL > |
```

Query 42

Query to display the job type with maximum and minimum employees.

```
MySQL localhost:33060+ ssl emp_dept SQL > (SELECT Job_type AS "Job_type with Max & Min Employees",
-> COUNT(*) AS "# of Employees"
-> FROM EMPLOYEE GROUP BY Job_type
-> HAVING COUNT(*) = (SELECT MAX(_count)
-> FROM (SELECT COUNT(*) AS _count
-> FROM EMPLOYEE GROUP BY Job_type) AS A))
-> UNION
-> (SELECT Job_type, COUNT(*)
-> FROM EMPLOYEE GROUP BY Job_type
-> HAVING COUNT(*) = (SELECT MIN(_count)
-> FROM (SELECT COUNT(*) AS _count
-> FROM EMPLOYEE GROUP BY Job_type) AS B));

+-----+-----+
| Job_type with Max & Min Employees | # of Employees |
+-----+-----+
| Salesman                          | 14             |
| President                         | 1              |
+-----+-----+
2 rows in set (0.0019 sec)
MySQL localhost:33060+ ssl emp_dept SQL > 
```