

**Information System Management Lab  
BCOM 307**

**Assignment #16**

**Submitted by:**

**Name:** YASH JAIN  
**Enrollment No:** 03914788818  
**Semester:** B.COM(H) 5<sup>th</sup> Semester  
**Class:** B.COM(H)  
**Section:** B.Com 5A  
**Date of Submission:** 11/10/2021

**Submitted to:**

**Praveen Kumar Singh**  
**Assistant Professor, MAIMS**



**Department of Commerce**  
**Maharaja Agrasen Institute of Management Studies**  
**Affiliated to Guru Gobind Singh Indraprastha University, Delhi**  
**Sector -22, Rohini, Delhi -110086, India; [www.maims.ac.in](http://www.maims.ac.in)**



## Maharaja Agrasen Institute of Management Studies

Affiliated to GGS IP University; Recognized u/s 2(f) of UGC

Recognized by Bar Council of India; ISO 9001: 2015

Certified Institution Sector 22, Rohini, Delhi -110086, India;

[www.maims.ac.in](http://www.maims.ac.in)

Department of Commerce

Academic Year: 2020-21

Semester: Vth

### Assignment No. 16

Unit No:

Course/Subject Code: BCOM 307

Issue Date

Subject Title: Information System Management Lab

Last Date of Submission:

#### Instructions for Students:

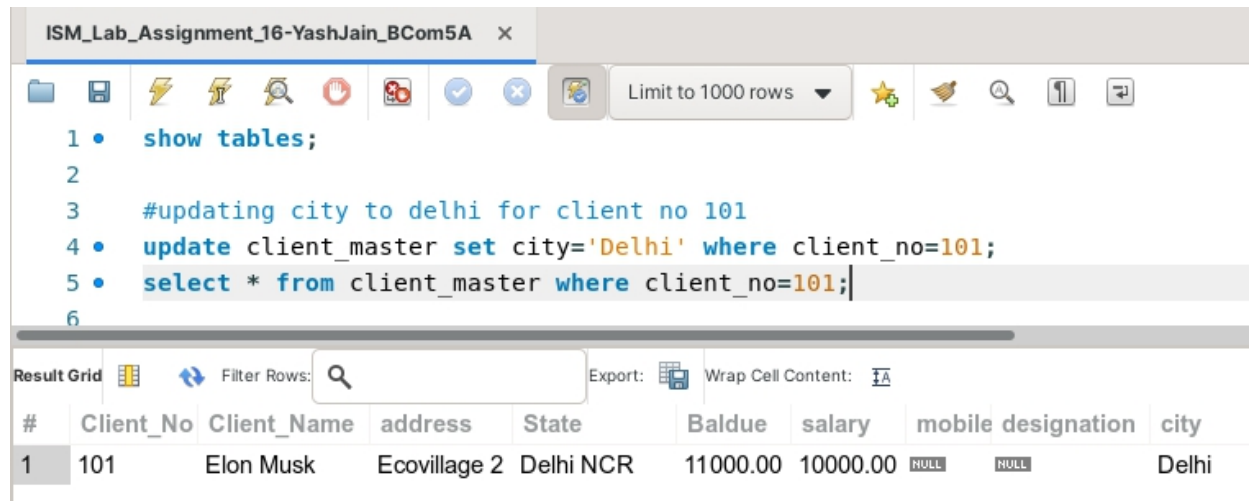
1. **All Questions are Compulsory.**
2. The student should attach proper cover page for each assignment clearly mentioning the Assignment No.
3. Each assignment should be prepared by the student individually with proper explanation and screenshots.
4. A4 size ruled sheets should be used for the assignment.
5. Assignment pages should be serially numbered at the bottom of page.

***During online education mode, upload scanned copy of the complete assignment including cover page latest by due date.***

Question No.	Question	CO No.
1	Change the city of client 101 to Delhi.	CO1, CO2, CO3, CO4
2	Add values for designation column - Manager, Salesman, Admin.	
3	Display the values of balance due and salary for clients 101 and 108.	
4	Count the total number of clients.	
5	Calculate the average salary of all clients.	
6	List the names of clients living in a city starting with 'D'.	
7	display the total and average salary of all clients.	
8	Change the city of salesman to Pune.	

**ASSIGNMENT 16 - AGGREGATE FUNCTIONS II****Task 1 : Change the city of client 101 to Delhi.**

This task can be completed using the **UPDATE Command**, along with the **SET** keyword, and the **where** clause.



The screenshot shows a database management tool interface. The top toolbar includes icons for file operations, a search bar, and a 'Limit to 1000 rows' dropdown. The SQL editor contains the following commands:

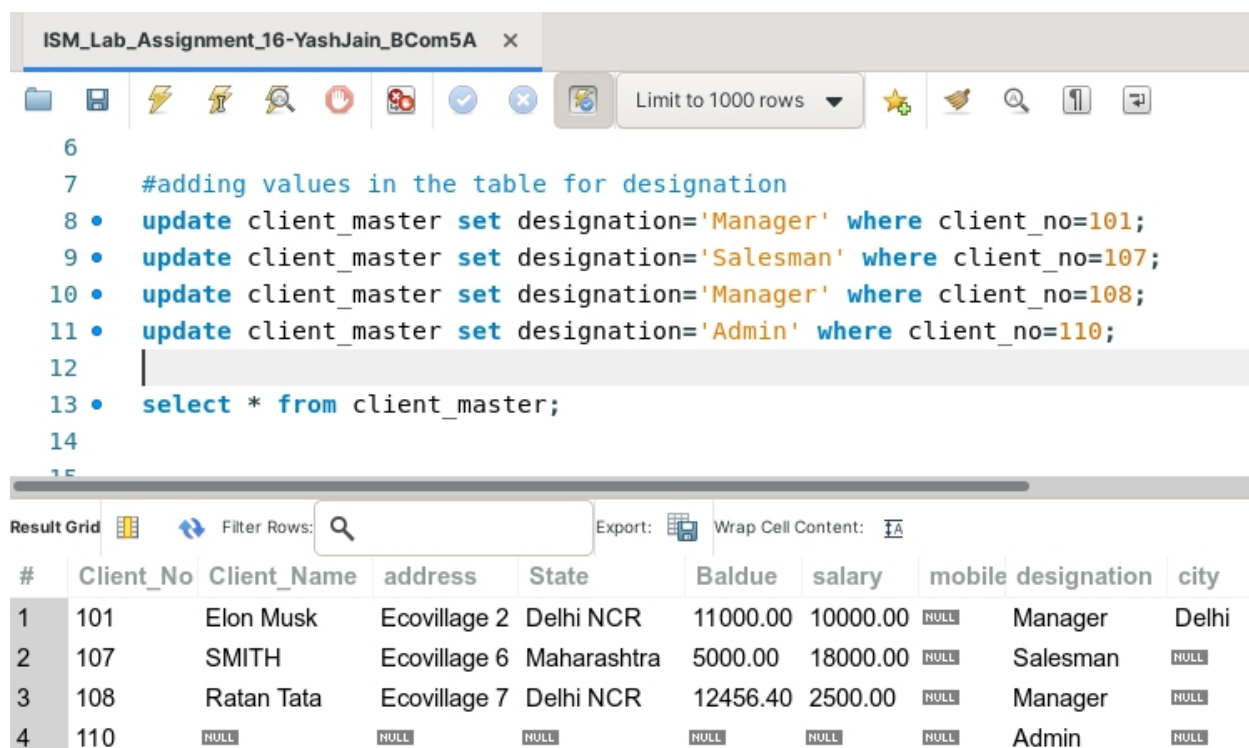
```
1 • show tables;
2
3 #updating city to delhi for client no 101
4 • update client_master set city='Delhi' where client_no=101;
5 • select * from client_master where client_no=101;
6
```

The 'Result Grid' at the bottom displays the following data:

#	Client_No	Client_Name	address	State	Baldue	salary	mobile	designation	city
1	101	Elon Musk	Ecovillage 2	Delhi NCR	11000.00	10000.00	NULL	NULL	Delhi

**Task 2: Add values for designation column - Manager, Salesman, Admin.**

This task can be completed using the **UPDATE Command**, along with the **SET** keyword, and the **where** clause.



The screenshot shows the same database management tool interface. The SQL editor contains the following commands:

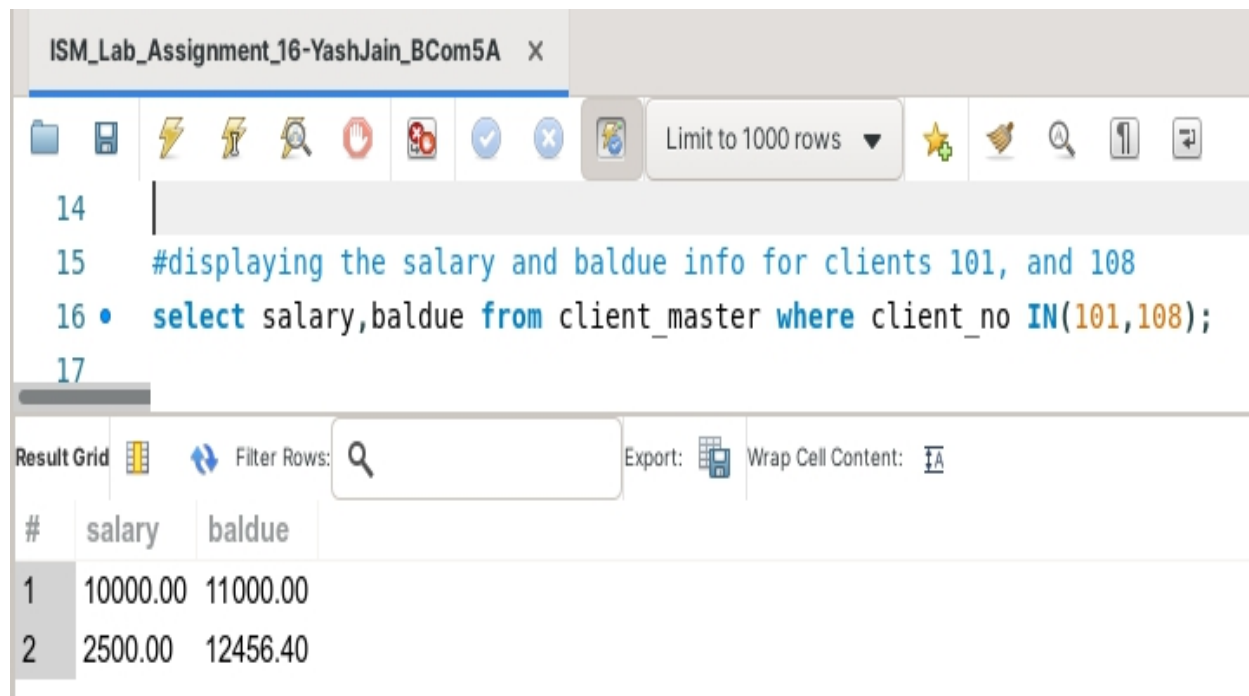
```
6
7 #adding values in the table for designation
8 • update client_master set designation='Manager' where client_no=101;
9 • update client_master set designation='Salesman' where client_no=107;
10 • update client_master set designation='Manager' where client_no=108;
11 • update client_master set designation='Admin' where client_no=110;
12
13 • select * from client_master;
14
15
```

The 'Result Grid' at the bottom displays the following data:

#	Client_No	Client_Name	address	State	Baldue	salary	mobile	designation	city
1	101	Elon Musk	Ecovillage 2	Delhi NCR	11000.00	10000.00	NULL	Manager	Delhi
2	107	SMITH	Ecovillage 6	Maharashtra	5000.00	18000.00	NULL	Salesman	NULL
3	108	Ratan Tata	Ecovillage 7	Delhi NCR	12456.40	2500.00	NULL	Manager	NULL
4	110	NULL	NULL	NULL	NULL	NULL	NULL	Admin	NULL

**Task 3: Display the values of balance due and salary for clients 101 and 108.**

This task can be completed using the **SELECT Command**, along with the **IN** keyword, and the **where** clause.



The screenshot shows a database query editor window titled "ISM\_Lab\_Assignment\_16-YashJain\_BCom5A". The query is as follows:

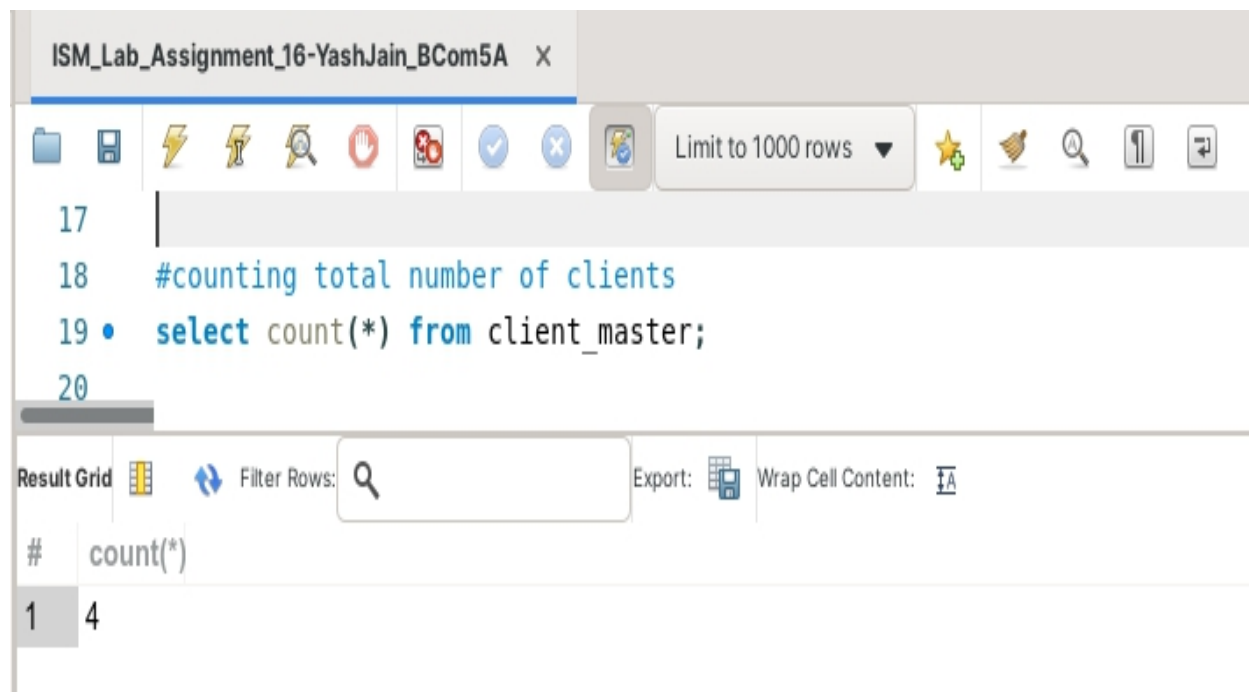
```
14  
15 #displaying the salary and baldue info for clients 101, and 108  
16 • select salary,baldue from client_master where client_no IN(101,108);  
17
```

Below the query editor, the "Result Grid" displays the results of the query:

#	salary	baldue
1	10000.00	11000.00
2	2500.00	12456.40

**Task 4: Count the total number of clients.**

This task can be completed using the **COUNT(\*) aggregate function**.



The screenshot shows the same database query editor window. The query is as follows:

```
17  
18 #counting total number of clients  
19 • select count(*) from client_master;  
20
```

Below the query editor, the "Result Grid" displays the results of the query:

#	count(*)
1	4

**Task 5: Calculate the average salary of all clients.**

This task can be completed using the **AVG()** aggregate function.

The screenshot shows a database query editor window titled "ISM\_Lab\_Assignment\_16-YashJain\_BCom5A". The query is as follows:

```
20
21 #calculating average salary for all clients
22 • select avg(salary) from client_master;
23
```

Below the query editor, the "Result Grid" is displayed, showing the result of the query:

#	avg(salary)
1	10166.666667

**Task 6: List the names of clients living in a city starting with 'D'.**

This task can be completed using the **SELECT** command, along with the **where** clause and the **LIKE** operator.

The screenshot shows a database query editor window titled "ISM\_Lab\_Assignment\_16-YashJain\_BCom5A". The query is as follows:


```
23
24 #Listing clients staying in city starting with D
25 • select * from client_master where city like 'D%';
26
```

Below the query editor, the "Result Grid" is displayed, showing the results of the query:

#	Client_No	Client_Name	address	State	Baldue	salary	mobile	designation	city
1	101	Elon Musk	Ecovillage 2	Delhi NCR	11000.00	10000.00	NULL	Manager	Delhi

**Task 7: display the total and average salary of all clients.**

This task can be completed using the **aggregate functions SUM() and AVG()**.



The screenshot shows a database query editor window titled "ISM\_Lab\_Assignment\_16-YashJain\_BCom5A". The query is as follows:

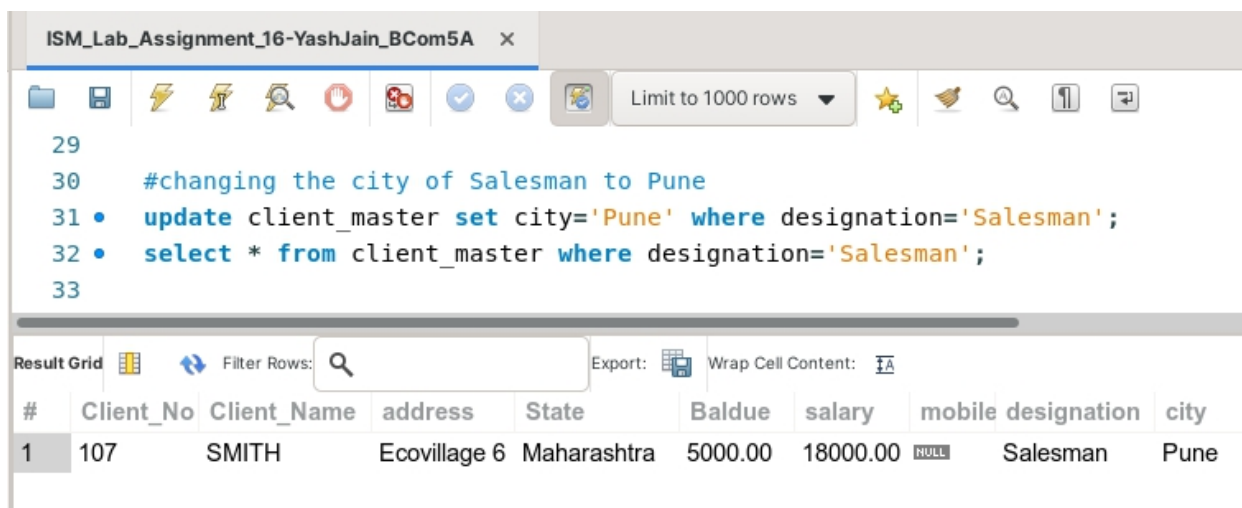
```
26  
27 #displaying total salary and average salary  
28 • select sum(salary),avg(salary) from client_master;  
29
```

Below the query editor, the "Result Grid" displays the results of the query:

#	sum(salary)	avg(salary)
1	30500.00	10166.666667

### Task 8: Change the city of salesman to Pune.

This task can be completed using the **UPDATE Command**, along with the **SET** keyword, and the **where** clause.



The screenshot shows the same database query editor window. The query is as follows:

```
29  
30 #changing the city of Salesman to Pune  
31 • update client_master set city='Pune' where designation='Salesman';  
32 • select * from client_master where designation='Salesman';  
33
```

Below the query editor, the "Result Grid" displays the results of the query:

#	Client_No	Client_Name	address	State	Baldue	salary	mobile	designation	city
1	107	SMITH	Ecovillage 6	Maharashtra	5000.00	18000.00	NULL	Salesman	Pune