

**Information System Management Lab  
BCOM 307**

**Assignment #20**

**Submitted by:**

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**Semester:** B.Com(H) 5<sup>th</sup> Semester  
**Class:** B.COM(H)  
**Section:** B.Com 5A  
**Date of Submission:** 25/10/2021

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## **Maharaja Agrasen Institute of Management Studies**

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Department of Commerce

Academic Year: 2020-21

Semester: Vth

### **Assignment No. 20**

**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	Display the names of the employees who belong to Sales department.	<b>CO2, CO3, CO4, CO5</b>
2	Find out the average salary of Sales department.	
3	Display employee name with designation from marketing department.	
4	Display average salary from each designation.	
5	Display average salary and average commission of IT Department.	

## ASSIGNMENT 20 - SQL SUB-QUERIES

### Task 1 : Display the names of the employees who belong to Sales department.

This task can be completed using the **SQL Sub-queries** used with the **SELECT** statement. A Sub-query can be used in the FROM Clause of the SELECT statement. A Sub-query in the FROM Clause defines a data source from that particular SELECT statement. The syntax for this is -

```
SELECT column1, column2, ....columnN from <table> where  
columnname=(sub-query);
```

The sub-query would be a query in itself, but used as a part of the WHERE Clause of the SELECT statement. Hence, it coins the term 'Sub-Query'.

The screenshot shows a SQL query editor window titled "ISM\_Lab\_Assignment\_20-YashJain\_BCom5A". The query is as follows:

```
3  
4 #fetching employee names with sales department using subqueries  
5 • SELECT Emp_name from employees where Dept_no=(Select Dept_No from departments where Dept_name='Sales');  
6
```

Below the query editor, the "Result Grid" is displayed with the following data:

#	Emp_name
1	Yash Jain

### Task 2: Find out the average salary of Sales department.

This task can be completed using the **AVG( ) Aggregate function** and **WHERE** clause in the Sub-Query.

The screenshot shows a SQL query editor window titled "ISM\_Lab\_Assignment\_20-YashJain\_BCom5A". The query is as follows:

```
6  
7 #fetching employee mean salary with sales department using subqueries  
8 • select avg(salary) 'Mean Salary' from employees where  
9 Dept_no=(Select Dept_No from departments where Dept_name='Sales');  
10
```

Below the query editor, the "Result Grid" is displayed with the following data:

#	Mean Salary
1	4500.0000

### Task 3: Display employee name with designation from marketing department.

This task can be completed using the **WHERE** clause in the Sub-Query.

ISM\_Lab\_Assignment\_20-YashJain\_BCom5A x

Limit to 5000 rows

```
10
11 #fetching employee name and designation from marketing department
12 • select emp_name,designation from employees where
13 Dept_No=(select dept_no from departments where Dept_Name='Marketing');
14
```

Result Grid

#	emp_name	designation
1	Elon Musk	President

**Task 4: Display average salary from each designation.**

This task can be completed using the **AVG()** aggregate function, along with the **GROUP BY** clause.

ISM\_Lab\_Assignment\_20-YashJain\_BCom5A x

Limit to 5000 rows

```
14
15 #displaying average salary for each designation
16 • select designation,avg(salary) from employees group by designation;
17
```

Result Grid

#	designation	avg(salary)
1	Manager	4500.0000
2	Analyst	1500.0000
3	President	3000.0000

**Task 5: Display average salary and average commission of IT Department.**

This task can be completed using the **AVG()** aggregate function, and **Sub-Query**.

ISM\_Lab\_Assignment\_20-YashJain\_BCom5A x

Limit to 5000 rows

```
17
18 #displaying average salary and commission for IT department
19 • select avg(salary),avg(commission) from employees where
20 Dept_No=(select dept_no from departments where Dept_Name='IT');
21
```

Result Grid

#	avg(salary)	avg(commission)
1	1500.0000	150.0000