

**Information System Management Lab
BCOM 307**

Assignment #21

Submitted by:

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Assignment No. 21

Unit No:

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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 all of the information of the employees whose salary is within the range of smallest value and 2500.	CO2, CO3, CO4, CO5
2	Display the number of employees in each department with their department number.	
3	Display employee name, ID and Job Title of all employees with location Delhi.	
4	Write sql command to display the name and job title for all employees whose salary is more than average salary of all employees.	
5	Add a new column 'Location' in the employee table with values.	

ASSIGNMENT 21 - SQL SUB-QUERIES PRACTICE

Task 1 : Display all of the information of the employees whose salary is within the range of smallest value and 2500.

This task can be completed using the **SQL Sub-queries** used with the **BETWEEN** Clause.

The screenshot shows a SQL IDE window titled "ISM_Lab_Assignment_21-YashJain_BCom5A". The query editor contains the following SQL code:

```
5  
6 #displaying records where salary between min value and 2500  
7 • select * from employees where salary between (select min(salary) from employees) and 2500;  
8
```

The "Result Grid" shows the following data:

#	Emp_No	Emp_Name	Designation	Hire_Date	salary	commission	Dept_No	location
1	1500	Ratan Tata	Analyst	1937-11-27	1500	150	30	Noida

Task 2: Display the number of employees in each department with their department number.

This task can be completed using the **COUNT() Aggregate function** and **GROUP BY** clause.

The screenshot shows a SQL IDE window titled "ISM_Lab_Assignment_21-YashJain_BCom5A". The query editor contains the following SQL code:

```
8  
9 #displaying number of employees from each department  
10 • select count(emp_no),dept_no from employees group by dept_no;  
11
```

The "Result Grid" shows the following data:

#	count(emp_no)	dept_no
1	1	10
2	1	20
3	1	30

Task 3: Display employee name, ID and Job Title of all employees with location Delhi.

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

The screenshot shows a SQL Developer window titled "ISM_Lab_Assignment_21-YashJain_BCom5A". The query editor contains the following SQL code:

```
11
12 #displaying employee records with location Delhi
13 • select emp_no,emp_name,designation from employees
14 where dept_no=(select dept_no from departments where location='Delhi');
15
```

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

#	emp_no	emp_name	designation
1	1000	Yash Jain	Manager

Task 4: Write SQL command to display the name and job title for all employees whose salary is more than average salary of all employees.

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

The screenshot shows a SQL Developer window titled "ISM_Lab_Assignment_21-YashJain_BCom5A". The query editor contains the following SQL code:

```
15
16 #displaying employee records with salary greater than average salary
17 • select emp_name,designation from employees where
18 salary>(select avg(salary) from employees);
19
```

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

#	emp_name	designation
1	Yash Jain	Manager

Task 5: Add a new column 'Location' in the employee table with values.

This task can be completed using the **ALTER** and **UPDATE** Commands.

The screenshot shows a SQL Developer window titled "ISM_Lab_Assignment_21-YashJain_BCom5A". The query editor contains the following SQL code:

```
20 #adding a new column location to the table employees
21 • alter table employees add location varchar(30);
22
23 #inserting values into location column
24 • update employees set location='Delhi' where dept_no=10;
25 • update employees set location='Mumbai' where dept_no=20;
26 • update employees set location='Noida' where dept_no=30;
27 • update employees set location='Gurugram' where dept_no=40;
```

28

29 • `select * from employees;`

30

Result Grid								
		Filter Rows:		Edit:		Export/Import:		Wrap Cell Content:
#	Emp_No	Emp_Name	Designation	Hire_Date	salary	commission	Dept_No	location
1	1000	Yash Jain	Manager	2000-07-13	4500	450	10	Delhi
2	1500	Ratan Tata	Analyst	1937-11-27	1500	150	30	Noida
3	2000	Elon Musk	President	1961-06-08	3000	300	20	Mumbai