

## SIMPLE QUERIES:

### 1. LIST ALL THE EMPLOYEE DETAILS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The central pane displays a query window with the following SQL code:

```
Select * from Employee
```

The results pane shows a table with 6 rows of employee data:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary  | Comm   | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|---------|--------|---------------|
| 1           | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 800.00  | NULL   | 20            |
| 2           | ALLEN     | KEVIN      | J           | 670    | 7698       | 1985-02-20 | 1600.00 | 300.00 | 30            |
| 3           | DOYLE     | JEAN       | K           | 671    | 7839       | 1985-04-04 | 2850.00 | NULL   | 30            |
| 4           | DENNIS    | LYNN       | S           | 671    | 7839       | 1985-05-15 | 2750.00 | NULL   | 30            |
| 5           | BAKER     | LESLIE     | D           | 671    | 7839       | 1985-06-10 | 2200.00 | NULL   | 40            |
| 6           | WARK      | CYNTHIA    | D           | 670    | 7698       | 1985-02-22 | 1250.00 | 500.00 | 30            |

Below the results, a message indicates "Query executed successfully." and the status bar shows "Ln 53 Col 1 Ch 1 INS".

### 2. LIST ALL THE DEPARTMENT DETAILS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The central pane displays a query window with the following SQL code:

```
Select * From Department
```

The results pane shows a table with 4 rows of department data:

| Department_id | DName      | Location_id |
|---------------|------------|-------------|
| 1             | Accounting | 122         |
| 2             | Sales      | 124         |
| 3             | Research   | 123         |
| 4             | Operations | 167         |

Below the results, a message indicates "Query executed successfully." and the status bar shows "Ln 55 Col 1 Ch 1 INS".

### 3. LIST ALL JOB DETAILS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables: Department and Job. The Results pane on the right displays the output of the following SQL query:

```
Select * From Department
```

```
Select * from Job
```

The results show the following data:

| JOB_ID | Designation  |
|--------|--------------|
| 667    | Clerk        |
| 668    | Staff        |
| 669    | Analyst      |
| 670    | Sales Person |
| 671    | Manager      |
| 672    | President    |

Below the results, a message indicates: "Query executed successfully."

### 4. LIST ALL THE LOCATIONS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables: Department and Loc\_ation. The Results pane on the right displays the output of the following SQL query:

```
Select * From Loc_ation
```

The results show the following data:

| location_id | City     |
|-------------|----------|
| 122         | New York |
| 123         | DALLAS   |
| 124         | Chicago  |
| 167         | Boston   |

Below the results, a message indicates: "Query executed successfully."

## 5. LIST OUT THE FIRSTNAME, LASTNAME, SALARY, COMMISSION FOR ALL EMPLOYEES.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The central pane displays two queries:

```
SQLQuery4.sql - LENOVO\AGNIS.Case_Study (Lenovo\User (75)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer Connect SQLServerON.sql - not connected SQLQuery4.sql - LENOVO\AGNIS (Lenovo\User (75)) * 07_Oct_22_DDL_DML_I - not connected
Select * From Location
Select First_name, Last_name,Salary,Comm from Employee
```

The Results pane shows the output of the second query, which lists employees with their first name, last name, salary, and commission:

|   | First_name | Last_name | Salary  | Comm   |
|---|------------|-----------|---------|--------|
| 1 | JOHN       | SMITH     | 800.00  | NULL   |
| 2 | KEVIN      | ALLEN     | 1600.00 | 300.00 |
| 3 | JEAN       | DOYLE     | 2850.00 | NULL   |
| 4 | LYNN       | DENNIS    | 2750.00 | NULL   |
| 5 | LESLIE     | BAKER     | 2200.00 | NULL   |
| 6 | CYNTHIA    | WARK      | 1250.00 | 500.00 |

Below the results, a message indicates: "Query executed successfully." and "LENOVO\AGNIS (15.0 RTM) | Lenovo\User (75) | Case\_Study | 00:00:00 | 6 rows".

## 6. LIST OUT EMPLOYEEID, LAST NAME, DEPARTMENT ID FOR ALL EMPLOYEES AND ALIAS EMPLOYEEID AS "ID OF THE EMPLOYEE", LAST NAME AS "NAME OF THE EMPLOYEE", DEPARTMENTID AS "DEP\_ID".

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The central pane displays two queries:

```
SQLQuery4.sql - LENOVO\AGNIS.Case_Study (Lenovo\User (75)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer Connect SQLServerON.sql - not connected SQLQuery4.sql - LENOVO\AGNIS (Lenovo\User (75)) * 07_Oct_22_DDL_DML_I - not connected
Select First_name, Last_name,Salary,Comm from Employee
Select Employee_id as ID_OF_EMPLOYEE, LAST_NAME as NAME_OF_THE_EMPLOYEE,DEPARTMENT_ID as DEP_ID
FROM Employee
```

The Results pane shows the output of the second query, which lists employees with aliases for their employee ID, last name, and department ID:

|   | ID_OF_EMPLOYEE | NAME_OF_THE_EMPLOYEE | DEP_ID |
|---|----------------|----------------------|--------|
| 1 | 7369           | SMITH                | 20     |
| 2 | 7499           | ALLEN                | 30     |
| 3 | 7505           | DOYLE                | 30     |
| 4 | 7506           | DENNIS               | 30     |
| 5 | 7507           | BAKER                | 40     |
| 6 | 7521           | WARK                 | 30     |

Below the results, a message indicates: "Query executed successfully." and "LENOVO\AGNIS (15.0 RTM) | Lenovo\User (75) | Case\_Study | 00:00:00 | 6 rows".

## 7. LIST OUT THE EMPLOYEES ANNUAL SALARY WITH THEIR NAMES ONLY

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. Two queries are running in the center:

```
Select First_name, Last_name, Salary, Comm from Employee
```

```
Select FIRST_NAME, MIDDLE_NAME, LAST_NAME, Salary  
FROM Employee
```

The results pane displays the following data:

|   | FIRST_NAME | MIDDLE_NAME | LAST_NAME | Salary  |
|---|------------|-------------|-----------|---------|
| 1 | JOHN       | Q           | SMITH     | 800.00  |
| 2 | KEVIN      | J           | ALLEN     | 1600.00 |
| 3 | JEAN       | K           | DOYLE     | 2850.00 |
| 4 | LYNN       | S           | DENNIS    | 2750.00 |
| 5 | LESLIE     | D           | BAKER     | 2200.00 |
| 6 | CYNTHIA    | D           | WARK      | 1250.00 |

Below the results, a message indicates: "Query executed successfully."

## WHERE CONDITION:

### 1. LIST THE DETAILS ABOUT "SMITH"

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. A single query is running in the center:

```
FROM Employee  
Select * From Employee  
Where Last_name = 'SMITH'
```

The results pane displays the following data:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|--------|------|---------------|
| 1           | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 800.00 | NULL | 20            |

Below the results, a message indicates: "Query executed successfully."

## 2. LIST OUT THE EMPLOYEES WHO ARE WORKING IN DEPARTMENT 20.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows a connection to 'LENOVO\AGNIS (SQL Server 15.0.2095.3 - Len...'. The 'Case\_Study' database is selected. The 'Tables' node under 'Case\_Study' has 'Employee' listed. The 'Script' button next to 'Employee' is highlighted. The 'Query Editor' window contains the following SQL code:

```
FROM Employee  
Select * From Employee  
Where Department_id = 20
```

The results pane shows one row of data:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|--------|------|---------------|
| 1           | SMITH     | JOHN       | Q           | 657    | 7902       | 1984-12-17 | 800.00 | NULL | 20            |

Below the results, a message indicates: 'Query executed successfully.'

## 3. LIST OUT THE EMPLOYEES WHO ARE EARNING SALARY BETWEEN 3000 AND 4500.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows a connection to 'LENOVO\AGNIS (SQL Server 15.0.2095.3 - Len...'. The 'Case\_Study' database is selected. The 'Tables' node under 'Case\_Study' has 'Employee' listed. The 'Script' button next to 'Employee' is highlighted. The 'Query Editor' window contains the following SQL code:

```
FROM Employee  
Select * From Employee  
Where Salary between 3000 and 4500
```

The results pane is empty, indicating '0 rows'.

#### 4. LIST OUT THE EMPLOYEES WHO ARE WORKING IN DEPARTMENT 10 OR 20.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The Query Editor window contains the following SQL code:

```
Where Salary between 3000 and 4500
Select * From Employee
Where Department_id in (10,20)
```

The Results pane displays the query results:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|--------|------|---------------|
| 7369        | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 800.00 | NULL | 20            |

Message bar: Query executed successfully.

#### 5. FIND OUT THE EMPLOYEES WHO ARE NOT WORKING IN DEPARTMENT 10 OR 30.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The Query Editor window contains the following SQL code:

```
Where Department_id in (10,20)
Select * From Employee
Where Department_id not in (10,30)
```

The Results pane displays the query results:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary  | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|---------|------|---------------|
| 7369        | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 800.00  | NULL | 20            |
| 7507        | BAKER     | LESLIE     | D           | 671    | 7839       | 1985-06-10 | 2200.00 | NULL | 40            |

Message bar: Query executed successfully.

## 6. LIST OUT THE EMPLOYEES WHOSE NAME STARTS WITH 'S'.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows a connection to 'LENOVO\AGNIS (SQL Server 15.0.2095.3 - Len...'. The 'Case\_Study' database is selected. The 'Tables' node under 'Case\_Study' is expanded, showing 'Employee' and other tables. A query window titled 'SQLQuery4.sql - LENOVO\AGNIS.Case\_Study (Lenovo\User (75)) - Microsoft SQL Server Management Studio' contains the following SQL code:

```
Where Department_id not in (10,30)
Select * From Employee
Where Last_name like ('S%')
```

The results pane shows a single row of data:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|--------|------|---------------|
| 1           | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 800.00 | NULL | 20            |

Below the results, a message indicates: 'Query executed successfully.'

## 7. LIST OUT THE EMPLOYEES WHOSE NAME STARTS WITH 'S' AND ENDS WITH 'H'.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows a connection to 'LENOVO\AGNIS (SQL Server 15.0.2095.3 - Len...'. The 'Case\_Study' database is selected. The 'Tables' node under 'Case\_Study' is expanded, showing 'Employee' and other tables. A query window titled 'SQLQuery4.sql - LENOVO\AGNIS.Case\_Study (Lenovo\User (75)) - Microsoft SQL Server Management Studio' contains the following SQL code:

```
Where Department_id not in (10,30)
Select * From Employee
Where Last_name like ('S%H')
```

The results pane shows a single row of data:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|--------|------|---------------|
| 1           | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 800.00 | NULL | 20            |

Below the results, a message indicates: 'Query executed successfully.'

## 8. LIST OUT THE EMPLOYEES WHOSE NAME LENGTH IS 4 AND START WITH 'S'.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The central pane displays a query window with the following SQL code:

```
Where Last_name like ('S%') AND LEN (Last_name) = 4
```

The results pane below shows a table with columns Employee\_id, Last\_name, First\_name, Middle\_name, Job\_id, Manager\_id, Hire\_date, Salary, Comm, and Department\_id. The results grid is currently empty, indicating no rows were found.

At the bottom, a message bar says "Query executed successfully." and shows the session details: LENOVO\AGNIS (15.0 RTM) | Lenovo\User (75) | Case\_Study | 00:00:00 | 0 rows.

## 9. LIST OUT EMPLOYEES WHO ARE WORKING IN DEPARTMENT 10 AND DRAW THE SALARIES MORE THAN 3500.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The central pane displays a query window with the following SQL code:

```
Where Last_name like ('S%') AND LEN (Last_name) = 4
```

The results pane below shows a table with columns Employee\_id, Last\_name, First\_name, Middle\_name, Job\_id, Manager\_id, Hire\_date, Salary, Comm, and Department\_id. The results grid is currently empty, indicating no rows were found.

At the bottom, a message bar says "Query executed successfully." and shows the session details: LENOVO\AGNIS (15.0 RTM) | Lenovo\User (75) | Case\_Study | 00:00:00 | 0 rows.

## 10. LIST OUT THE EMPLOYEES WHO ARE NOT RECEIVING COMMISSION.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The main window contains a query window with the following SQL code:

```
Where Department_id = 10 AND Salary > 3500  
Select * From Employee  
Where Comm is Null
```

The results pane displays a table with four rows of employee data where the Commission column is null. The columns are Employee\_id, Last\_name, First\_name, Middle\_name, Job\_id, Manager\_id, Hire\_date, Salary, Comm, and Department\_id. The data is as follows:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary  | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|---------|------|---------------|
| 7369        | SMITH     | JOHN       | Q           | 667    | 7802       | 1984-12-17 | 800.00  | NULL | 20            |
| 7505        | DOYLE     | JEAN       | K           | 671    | 7839       | 1985-04-04 | 2850.00 | NULL | 30            |
| 7506        | DENNIS    | LYNN       | S           | 671    | 7839       | 1985-05-15 | 2750.00 | NULL | 30            |
| 7507        | BAKER     | LESLIE     | D           | 671    | 7839       | 1985-06-10 | 2200.00 | NULL | 40            |

Below the results, a message indicates "Query executed successfully." and shows the status bar with "Ln 82 Col 19 Ch 19 INS".

## ORDER BY CLAUSE:

### 1. LIST OUT THE EMPLOYEE ID, LAST NAME IN ASCENDING ORDER BASED ON THE EMPLOYEE ID.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, Department, and Location. The main window contains a query window with the following SQL code:

```
Where Comm is Null  
Select Employee_id , Last_name from Employee  
Order by Employee_id Asc
```

The results pane displays a table with six rows of employee data ordered by Employee\_id. The columns are Employee\_id and Last\_name. The data is as follows:

| Employee_id | Last_name |
|-------------|-----------|
| 7369        | SMITH     |
| 7499        | ALLEN     |
| 7505        | DOYLE     |
| 7506        | DENNIS    |
| 7507        | BAKER     |
| 7521        | WARK      |

Below the results, a message indicates "Query executed successfully." and shows the status bar with "Ln 85 Col 25 Ch 25 INS".

## 2. LIST OUT THE EMPLOYEE ID, NAME IN DESCENDING ORDER BASED ON SALARY.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. In the center, a query window displays the following SQL code:

```
Order by Employee_id Asc  
Select Employee_id , Last_name from Employee  
Order by Salary desc
```

The results pane shows the output of the query:

| Employee_id | Last_name |
|-------------|-----------|
| 7505        | DOYLE     |
| 7506        | DENNIS    |
| 7507        | BAKER     |
| 7499        | ALLEN     |
| 7521        | WARK      |
| 7369        | SMITH     |

At the bottom, a message indicates: "Query executed successfully."

## 3. LIST OUT THE EMPLOYEE DETAILS ACCORDING TO THEIR LAST-NAME IN ASCENDING ORDER AND

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. In the center, a query window displays the following SQL code:

```
Order by Salary desc  
Select * from Employee  
Order by Last_name Asc
```

The results pane shows the output of the query:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary  | Comm   | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|---------|--------|---------------|
| 7499        | ALLEN     | KEVIN      | J           | 670    | 7688       | 1985-02-20 | 1600.00 | 300.00 | 30            |
| 7507        | BAKER     | LESLIE     | D           | 671    | 7839       | 1985-06-10 | 2200.00 | NULL   | 40            |
| 7506        | DENNIS    | LYNN       | S           | 671    | 7839       | 1985-05-15 | 2750.00 | NULL   | 30            |
| 7505        | DOYLE     | JEAN       | K           | 671    | 7839       | 1985-04-04 | 2850.00 | NULL   | 30            |
| 7369        | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 800.00  | NULL   | 20            |
| 7521        | WARK      | CYNTHIA    | D           | 670    | 7898       | 1985-02-22 | 1250.00 | 500.00 | 30            |

At the bottom, a message indicates: "Query executed successfully."

4. LIST OUT THE EMPLOYEE DETAILS ACCORDING TO THEIR LAST-NAME IN ASCENDING ORDER AND THEN ON DEPARTMENT\_ID IN DESCENDING ORDER.

```
Order by Salary desc
Select * from Employee
Order by Last_name Asc, Department_id Desc
```

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary  | Comm   | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|---------|--------|---------------|
| 7499        | ALLEN     | KEVIN      | J           | 670    | 7698       | 1985-02-20 | 1600.00 | 300.00 | 30            |
| 7507        | BAKER     | LESLIE     | D           | 671    | 7839       | 1985-06-10 | 2200.00 | NULL   | 40            |
| 7506        | DENNIS    | LYNN       | S           | 671    | 7839       | 1985-05-15 | 2750.00 | NULL   | 30            |
| 7505        | DOYLE     | JEAN       | K           | 671    | 7839       | 1985-04-04 | 2850.00 | NULL   | 30            |
| 7369        | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 800.00  | NULL   | 20            |
| 7521        | WARK      | CYNTHIA    | D           | 670    | 7698       | 1985-02-22 | 1250.00 | 500.00 | 30            |

Query executed successfully.

## GROUP BY & HAVING CLAUSE

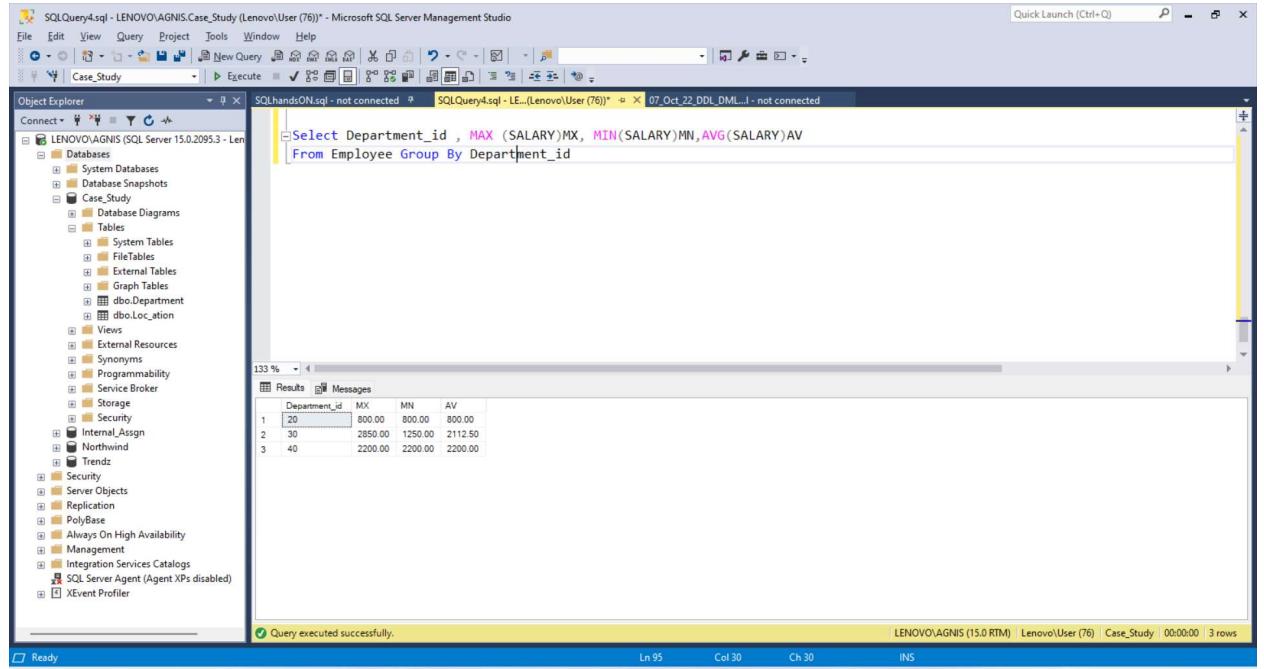
### 1. HOW MANY EMPLOYEES WHO ARE IN DIFFERENT DEPARTMENTS WISE IN THE ORGANIZATION.

```
Select Count (Employee_id)DC, Department_id From Employee Group By Department_id
```

| DC | Department_id |
|----|---------------|
| 1  | 20            |
| 4  | 30            |
| 1  | 40            |

Query executed successfully.

**2. LIST OUT THE DEPARTMENT WISE MAXIMUM SALARY, MINIMUM SALARY, AVERAGE SALARY OF THE EMPLOYEES.**



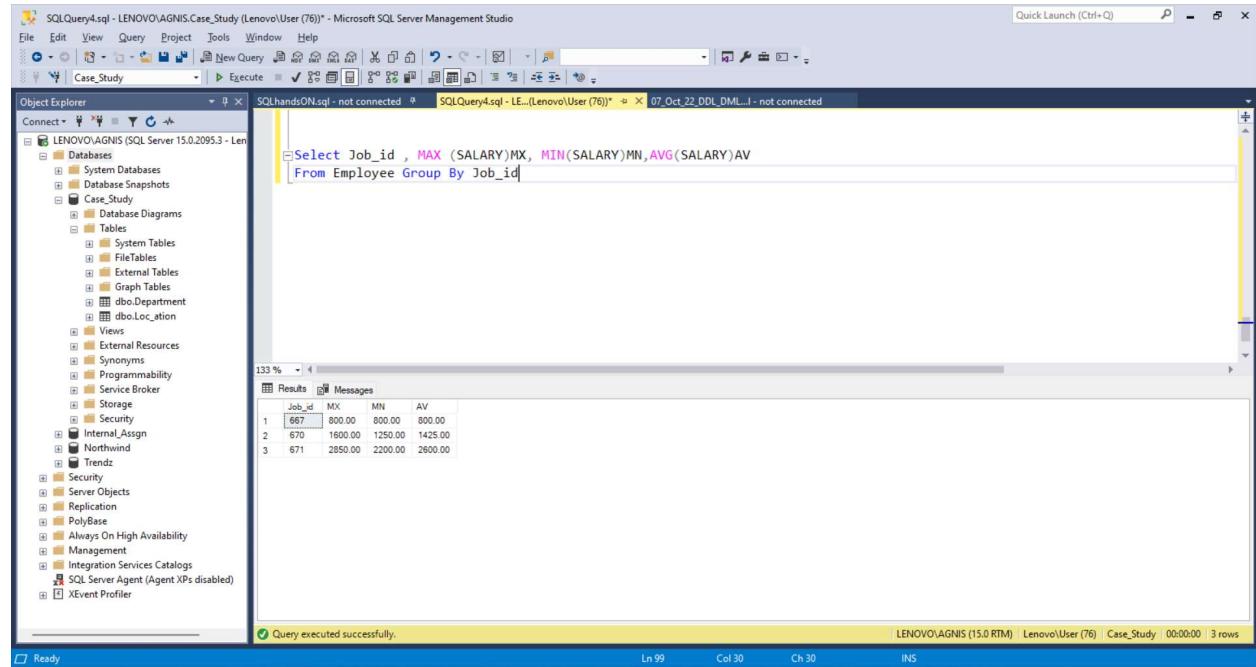
```
SQLQuery4.sql - LENOVO\AGNIS.Case_Study [Lenovo\User (76)]* - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer
Connect ▾ Case_Study
LENVOVO\AGNIS (SQL Server 15.0.2095.3 - Len
Databases
System Databases
Database Snapshots
Case_Study
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Department
dbo.Loc_location
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
Internal_Asgn
Northwind
Trendz
Security
Server Objects
Replication
PolyBase
Always On High Availability
Management
Integration Services Catalogs
SQL Server Agent (Agent XPs disabled)
XEvent Profiler

SQLhandsON.sql - not connected
SQLQuery4.sql - LE...[Lenovo\User (76)]* 07_Oct_22_DDL_DML...I - not connected
Select Department_id , MAX (SALARY)MX , MIN(SALARY)MN,AVG(SALARY)AV
From Employee Group By Department_id

Results Messages
Department_id MX MN AV
1 20 800.00 800.00 800.00
2 30 2850.00 1250.00 2112.50
3 40 2200.00 2200.00 2200.00

Query executed successfully.
LENOVO\AGNIS (15.0 RTM) | Lenovo\User (76) | Case_Study | 00:00:00 | 3 rows
Ln 95 Col 30 Ch 30 INS
Ready
```

**3. LIST OUT JOB WISE MAXIMUM SALARY, MINIMUM SALARY, AVERAGE SALARIES OF THE EMPLOYEES.**



```
SQLQuery4.sql - LENOVO\AGNIS.Case_Study [Lenovo\User (76)]* - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer
Connect ▾ Case_Study
LENVOVO\AGNIS (SQL Server 15.0.2095.3 - Len
Databases
System Databases
Database Snapshots
Case_Study
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Department
dbo.Loc_location
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
Internal_Asgn
Northwind
Trendz
Security
Server Objects
Replication
PolyBase
Always On High Availability
Management
Integration Services Catalogs
SQL Server Agent (Agent XPs disabled)
XEvent Profiler

SQLhandsON.sql - not connected
SQLQuery4.sql - LE...[Lenovo\User (76)]* 07_Oct_22_DDL_DML...I - not connected
Select Job_id , MAX (SALARY)MX , MIN(SALARY)MN,AVG(SALARY)AV
From Employee Group By Job_id

Results Messages
Job_id MX MN AV
1 667 800.00 800.00 800.00
2 670 1600.00 1250.00 1425.00
3 671 2850.00 2200.00 2600.00

Query executed successfully.
LENOVO\AGNIS (15.0 RTM) | Lenovo\User (76) | Case_Study | 00:00:00 | 3 rows
Ln 99 Col 30 Ch 30 INS
Ready
```

#### 4. LIST OUT THE NUMBER OF EMPLOYEES JOINED IN EVERY MONTH IN ASCENDING ORDER.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains the following SQL query:

```
From Employee Group By Job_id
Select Employee_id , Hire_date from Employee
Order by Hire_date Asc
```

The results pane displays the following data:

| Employee_id | Hire_date  |
|-------------|------------|
| 7369        | 1984-12-17 |
| 7499        | 1985-02-20 |
| 7621        | 1985-02-22 |
| 7505        | 1985-04-04 |
| 7506        | 1985-05-15 |
| 7507        | 1985-06-10 |

Below the results, a message indicates: "Query executed successfully." and shows the session details: LENOVO\AGNIS (15.0 RTM) | Lenovo\User (76) | Case\_Study | 00:00:00 | 6 rows.

#### 5. LIST OUT THE NUMBER OF EMPLOYEES FOR EACH MONTH AND YEAR, IN THE ASCENDING ORDER BASED ON THE YEAR, MONTH.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains the following SQL query:

```
SELECT DATEPART(YYYY,HIRE_DATE) YEAR,DATENAME(MM,HIRE_DATE) MONTH,
COUNT(*) NoOfEmployee FROM EMPLOYEE
GROUP BY DATEPART(YYYY,HIRE_DATE),DATENAME(MM,HIRE_DATE)
```

The results pane displays the following data:

| YEAR | MONTH    | NoOfEmployee |
|------|----------|--------------|
| 1985 | April    | 1            |
| 1984 | December | 1            |
| 1985 | February | 2            |
| 1985 | June     | 1            |
| 1985 | May      | 1            |

Below the results, a message indicates: "Query executed successfully." and shows the session details: LENOVO\AGNIS (15.0 RTM) | Lenovo\User (79) | Case\_Study | 00:00:00 | 5 rows.

## 6. LIST OUT THE DEPARTMENT ID HAVING ATLEAST FOUR EMPLOYEES.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, dbo.Department, and dbo.Location. The central pane displays a T-SQL query:

```
Order by Hire_date Asc  
Select Count (Employee_id)DC, Department_id from Employee  
Group by Department_id  
Having Count (Employee_id) >= 4
```

The results pane shows the output of the query:

| DC | Department_id |    |
|----|---------------|----|
| 1  | 4             | 30 |

Below the results, a message indicates "Query executed successfully." and provides statistics: LENOVO\AGNIS (15.0 RTM) | Lenovo\User (76) | Case\_Study | 00:00:00 | 1 rows.

## 7. HOW MANY EMPLOYEES JOINED IN JANUARY MONTH.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, dbo.Department, and dbo.Location. The central pane displays a T-SQL query:

```
SELECT DATENAME(MM,HIRE_DATE) MONTH,  
COUNT(*) NoOfEmployee FROM EMPLOYEE  
GROUP BY DATENAME(MM,HIRE_DATE)  
Having DATENAME(MM,HIRE_DATE) In ('January')
```

The results pane shows the output of the query:

| MONTH   | NoOfEmployee |
|---------|--------------|
| January | 10           |

Below the results, a message indicates "Query executed successfully." and provides statistics: LENOVO\AGNIS (15.0 RTM) | Lenovo\User (79) | Case\_Study | 00:00:00 | 0 rows.

## 8. HOW MANY EMPLOYEES JOINED IN JANUARY OR SEPTEMBER MONTH.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following T-SQL code:

```
SELECT DATENAME(MM,HIRE_DATE) MONTH,
COUNT(*) NoOfEmployee FROM EMPLOYEE
GROUP BY DATENAME(MM,HIRE_DATE)
Having DATENAME(MM,HIRE_DATE) In ('January', 'September')
```

The results pane shows the output of the query:

| MONTH     | NoOfEmployee |
|-----------|--------------|
| January   | 1            |
| September | 1            |

At the bottom, a message indicates "Query executed successfully."

## 9. HOW MANY EMPLOYEES WERE JOINED IN 1985?

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following T-SQL code:

```
SELECT DATEPART(YYYY,HIRE_DATE) YEAR,
COUNT(*) NoOfEmployee FROM EMPLOYEE
GROUP BY DATEPART(YYYY,HIRE_DATE)
Having DATEPART(YYYY,HIRE_DATE) In (1985)
```

The results pane shows the output of the query:

| YEAR | NoOfEmployee |
|------|--------------|
| 1985 | 5            |

At the bottom, a message indicates "Query executed successfully."

## 10. HOW MANY EMPLOYEES WERE JOINED EACH MONTH IN 1985.

```
SELECT DATEPART(YYYY,HIRE_DATE) YEAR,DATENAME(MM,HIRE_DATE) MONTH,
COUNT(*) NoOfEmployee FROM EMPLOYEE
GROUP BY DATEPART(YYYY,HIRE_DATE),DATENAME(MM,HIRE_DATE)
Having DATEPART(YYYY,HIRE_DATE) In (1985)
```

| YEAR | MONTH    | NoOfEmployee |
|------|----------|--------------|
| 1985 | April    | 1            |
| 1985 | February | 2            |
| 1985 | June     | 1            |
| 1985 | May      | 1            |

Query executed successfully.

## 11. HOW MANY EMPLOYEES WERE JOINED IN MARCH 1985?

```
SELECT DATEPART(YYYY,HIRE_DATE) YEAR,DATENAME(MM,HIRE_DATE) MONTH,
COUNT(*) NoOfEmployee FROM EMPLOYEE
GROUP BY DATEPART(YYYY,HIRE_DATE),DATENAME(MM,HIRE_DATE)
Having DATEPART(YYYY,HIRE_DATE) = (1985) And DATENAME(MM,HIRE_DATE) = 'March'
```

| YEAR | MONTH | NoOfEmployee |
|------|-------|--------------|
|------|-------|--------------|

Query executed successfully.

## 12. WHICH IS THE DEPARTMENT ID, HAVING GREATER THAN OR EQUAL TO 3 EMPLOYEES JOINED IN APRIL 1985?

```

SELECT DATEPART(YYYY,HIRE_DATE) YEAR,Department_id,
COUNT(Department_id) NoOfEmployee
FROM EMPLOYEE
GROUP BY DATEPART(YYYY,HIRE_DATE), Department_id
Having DATEPART(YYYY,HIRE_DATE) = 1985 And COUNT(Department_id) >= 3

```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane displays the query above, which retrieves department IDs and employee counts for April 1985. The results pane shows a single row:

| YEAR | Department_id | NoOfEmployee |
|------|---------------|--------------|
| 1985 | 30            | 4            |

Below the results, a message indicates "Query executed successfully".

## JOINS

### 1. LIST OUT EMPLOYEES WITH THEIR DEPARTMENT NAMES.

```

Select E.First_name,E.Last_name, D.DName From Employee E Inner Join Department D
On E.Department_id = D.Department_id

```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane displays the query above, which performs an inner join between the Employee and Department tables. The results pane shows the following data:

|   | First_name | Last_name | DName      |
|---|------------|-----------|------------|
| 1 | JOHN       | SMITH     | Sales      |
| 2 | KEVIN      | ALLEN     | Research   |
| 3 | JEAN       | DOYLE     | Research   |
| 4 | LYNN       | DENNIS    | Research   |
| 5 | LESLIE     | BAKER     | Operations |
| 6 | CYNTHIA    | WARK      | Research   |

Below the results, a message indicates "Query executed successfully".

## 2. DISPLAY EMPLOYEES WITH THEIR DESIGNATIONS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
Select E.First_name, E.Last_name, J.Designation From Employee E Inner Join JOB J  
On E.Job_id = J.JOB_ID
```

The results pane displays the following data:

|   | First_name | Last_name | Designation  |
|---|------------|-----------|--------------|
| 1 | JOHN       | SMITH     | Clerk        |
| 2 | KEVIN      | ALLEN     | Sales Person |
| 3 | JEAN       | DOYLE     | Manager      |
| 4 | LYNN       | DENNIS    | Manager      |
| 5 | LESLIE     | BAKER     | Manager      |
| 6 | CYNTHIA    | WARK      | Sales Person |

Below the results, a message indicates: "Query executed successfully." and "LENOVO\AGNIS (15.0 RTM) | Lenovo\User (79) | Case\_Study | 00:00:00 | 6 rows".

## 3. DISPLAY THE EMPLOYEES WITH THEIR DEPARTMENT NAMES AND REGIONAL GROUPS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
Select E.First_name, E.Last_name, D.Dname, L.City From Employee E Inner Join Department D  
On E.Department_id = D.Department_id Join Loc_ation L On D.Location_Id = L.location_id
```

The results pane displays the following data:

|   | First_name | Last_name | Dname      | Cty     |
|---|------------|-----------|------------|---------|
| 1 | JOHN       | SMITH     | Sales      | Chicago |
| 2 | KEVIN      | ALLEN     | Research   | DALLAS  |
| 3 | JEAN       | DOYLE     | Research   | DALLAS  |
| 4 | LYNN       | DENNIS    | Research   | DALLAS  |
| 5 | LESLIE     | BAKER     | Operations | Boston  |
| 6 | CYNTHIA    | WARK      | Research   | DALLAS  |

Below the results, a message indicates: "Query executed successfully." and "LENOVO\AGNIS (15.0 RTM) | Lenovo\User (79) | Case\_Study | 00:00:00 | 6 rows".

#### 4. HOW MANY EMPLOYEES WHO ARE WORKING IN DIFFERENT DEPARTMENTS AND DISPLAY WITH DEPARTMENT NAMES.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
Select D.Dname, Count(E.Employee_id)EC
From Employee E Inner Join Department D
On E.Department_id = D.Department_id
Group By D.Dname
```

The results pane displays the following data:

| Dname      | EC |
|------------|----|
| Operations | 1  |
| Research   | 4  |
| Sales      | 1  |

A status bar at the bottom indicates "Query executed successfully".

#### 5. HOW MANY EMPLOYEES WHO ARE WORKING IN SALES DEPARTMENT.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
Select D.Dname, Count(E.Employee_id)EC
From Employee E Inner Join Department D
On E.Department_id = D.Department_id
Where D.Dname = 'Sales'
Group By D.Dname
```

The results pane displays the following data:

| Dname | EC |
|-------|----|
| Sales | 1  |

A status bar at the bottom indicates "Query executed successfully".

**6. WHICH IS THE DEPARTMENT HAVING GREATER THAN OR EQUAL TO 5 EMPLOYEES AND DISPLAY THE DEPARTMENT NAMES IN ASCENDING ORDER.**

```

SQLQuery4.sql - LENOVO\AGNIS.Case_Study (Lenovo\User (79)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer Results Messages
Object Explorer Results Messages
LENVOVO\AGNIS (SQL Server 15.0.2095.3 - Len...
Case_Study
Select D.Dname, Count(E.Employee_id)EC
From Employee E Inner Join Department D
On E.Department_id = D.Department_id
Group By D.Dname
Having Count(E.Employee_id) >= 5
Order by D.DName ASC
Results
Dname EC
Query executed successfully.
LENVOVO\AGNIS (15.0 RTM) | Lenovo\User (79) | Case_Study | 00:00:00 | 0 rows
Ln 135 Col 21 Ch 21 INS
Ready

```

**7. HOW MANY JOBS IN THE ORGANIZATION WITH DESIGNATIONS.**

```

SQLQuery4.sql - LENOVO\AGNIS.Case_Study (Lenovo\User (79)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer Results Messages
Object Explorer Results Messages
LENVOVO\AGNIS (SQL Server 15.0.2095.3 - Len...
Case_Study
Select J.Designation, Count (*) Desig From Employee E Inner Join JOB J
On E.Job_id = J.JOB_ID
Group by J.Designation
Results
Designation Desig
Clerk 1
Manager 3
Sales Person 2
Query executed successfully.
LENVOVO\AGNIS (15.0 RTM) | Lenovo\User (79) | Case_Study | 00:00:00 | 3 rows
Ln 146 Col 23 Ch 23 INS
Ready

```

## 8. HOW MANY EMPLOYEES ARE WORKING IN "NEW YORK".

```
SQLQuery4.sql - LENOVO\AGNIS.Case_Study (Lenovo\User (79)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer | Case_Study | Execute | New Query | Find | Replace | Properties | Home | Help | Quick Launch (Ctrl+Q) | X
SQLhandsON.sql - not connected | SQLQuery4.sql - L... (Lenovo\User (79)) * | 07_Oct_22_DDL_DML...I - not connected
Select * from Loc_at...
Select L.City, Count (Employee_id) C From Employee E Join Department D
On E.Department_Id = D.Department_id Join Loc_at... L On D.Location_Id = L.location_id
Group by l.City
Having l.City = 'New York'
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer pane on the left shows the database structure for 'Case\_Study'. The main window contains a query editor with the following T-SQL code:

```
Select L.City, Count (Employee_id) C From Employee E Join Department D
On E.Department_Id = D.Department_id Join Loc_at... L On D.Location_Id = L.location_id
Group by l.City
Having l.City = 'New York'
```

The results pane below the query editor is empty, indicating no data has been returned yet.

## 9. DISPLAY THE EMPLOYEE DETAILS WITH SALARY GRADES.

```
SQLQuery4.sql - LENOVO\AGNIS.Case_Study (Lenovo\User (52)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer | Case_Study | Execute | New Query | Find | Replace | Properties | Home | Help | Quick Launch (Ctrl+Q) | X
SQLhandsON.sql - not connected | SQLQuery4.sql - L... (Lenovo\User (52)) * | 07_Oct_22_DDL_DML...I - not connected
SELECT *, 
CASE
WHEN SALARY<1000 THEN 'C'
WHEN SALARY<2000 THEN 'B'
WHEN SALARY>2000 THEN 'A'
END AS GRADE
FROM EMPLOYEE
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer pane on the left shows the database structure for 'Case\_Study'. The main window contains a query editor with the following T-SQL code:

```
SELECT *, 
CASE
WHEN SALARY<1000 THEN 'C'
WHEN SALARY<2000 THEN 'B'
WHEN SALARY>2000 THEN 'A'
END AS GRADE
FROM EMPLOYEE
```

The results pane below the query editor displays the following data:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary  | Comm   | Department_id | GRADE |
|-------------|-----------|------------|-------------|--------|------------|------------|---------|--------|---------------|-------|
| 1           | SMITH     | JOHN       | Q           | 667    | 7902       | 1984-12-17 | 880.00  | NULL   | 20            | C     |
| 2           | ALLEN     | KEVIN      | J           | 670    | 7698       | 1985-04-04 | 2850.00 | NULL   | 30            | B     |
| 3           | DOYLE     | JEAN       | K           | 671    | 7839       | 1985-05-15 | 2750.00 | NULL   | 30            | A     |
| 4           | DENNIS    | LYNN       | S           | 671    | 7839       | 1985-06-10 | 2200.00 | NULL   | 40            | A     |
| 5           | BAKER     | LESLIE     | D           | 671    | 7839       | 1985-02-22 | 1250.00 | 500.00 | 30            | B     |
| 6           | WARK      | CYNTHIA    | D           | 670    | 7698       | 1985-02-22 | 1250.00 | 500.00 | 30            | B     |

The results pane indicates that the query was executed successfully.

## 10. LIST OUT THE NO. OF EMPLOYEES ON GRADE WISE.

## 11. DISPLAY THE EMPLOYEE SALARY GRADES AND NO. OF EMPLOYEES BETWEEN 2000 TO 5000 RANGE OF SALARY.

## 12. DISPLAY THE EMPLOYEE DETAILS WITH THEIR MANAGER NAMES.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
SELECT E.EMPLOYEE_ID E_ID,E.LAST_NAME EMP_NAME,
M.LAST_NAME MANAGER_NAME FROM EMPLOYEE E
INNER JOIN EMPLOYEE M ON E.MANAGER_ID=M.EMPLOYEE_ID
```

The results pane below shows a table with columns 'EMPLOYEE\_ID', 'EMPLOYEE\_NAME', and 'MANAGER\_NAME'. The status bar at the bottom indicates 'Query executed successfully.' and provides other session details.

## 13. DISPLAY THE EMPLOYEE DETAILS WHO EARN MORE THAN THEIR MANAGERS SALARIES.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
SELECT E.LAST_NAME E_NAME,E.SALARY E_SALARY,M.LAST_NAME M_NAME,
M.SALARY M_SALARY FROM EMPLOYEE E
INNER JOIN EMPLOYEE M ON E.MANAGER_ID=M.EMPLOYEE_ID
AND E.SALARY>M.SALARY
```

The results pane below shows a table with columns 'E\_NAME', 'E\_SALARY', 'M\_NAME', and 'M\_SALARY'. The status bar at the bottom indicates 'Query executed successfully.' and provides other session details.

#### 14. SHOW THE NO. OF EMPLOYEES WORKING UNDER EVERY MANAGER.

```
SELECT M.MANAGER_ID,COUNT(*) NOS_EMP
FROM EMPLOYEE E INNER JOIN EMPLOYEE M
ON M.EMPLOYEE_ID=E.MANAGER_ID
GROUP BY M.MANAGER_ID
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains the query: 'SELECT M.MANAGER\_ID,COUNT(\*) NOS\_EMP FROM EMPLOYEE E INNER JOIN EMPLOYEE M ON M.EMPLOYEE\_ID=E.MANAGER\_ID GROUP BY M.MANAGER\_ID'. The results pane below shows the output:

| MANAGER_ID | NOS_EMP |
|------------|---------|
| 1          | 10      |
| 2          | 1       |
| 3          | 1       |
| 4          | 1       |
| 5          | 1       |
| 6          | 1       |
| 7          | 1       |
| 8          | 1       |
| 9          | 1       |
| 10         | 1       |

Query executed successfully.

#### 15. DISPLAY EMPLOYEE DETAILS WITH THEIR MANAGER NAMES.

```
SELECT E.EMPLOYEE_ID E_ID,E.LAST_NAME EMP_NAME,
M.LAST_NAME MANAGER_NAME FROM EMPLOYEE E
INNER JOIN EMPLOYEE M ON E.MANAGER_ID=M.EMPLOYEE_ID
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains the query: 'SELECT E.EMPLOYEE\_ID E\_ID,E.LAST\_NAME EMP\_NAME, M.LAST\_NAME MANAGER\_NAME FROM EMPLOYEE E INNER JOIN EMPLOYEE M ON E.MANAGER\_ID=M.EMPLOYEE\_ID'. The results pane below shows the output:

| E_ID | EMP_NAME | MANAGER_NAME |
|------|----------|--------------|
| 1    | ADAMS    | KELLY        |
| 2    | BLAKE    | KELLY        |
| 3    | CARTER   | KELLY        |
| 4    | DEWITT   | KELLY        |
| 5    | FORD     | KELLY        |
| 6    | HUNTER   | KELLY        |
| 7    | JONES    | KELLY        |
| 8    | MARTIN   | KELLY        |
| 9    | SCOTT    | KELLY        |
| 10   | STEWART  | KELLY        |

Query executed successfully.

## 16. DISPLAY ALL EMPLOYEES IN SALES OR OPERATION DEPARTMENTS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
SELECT D.Dname, COUNT(E.Employee_id) EC
FROM Employee E Inner Join Department D
ON E.Department_id = D.Department_id
Group By D.Dname
Having D.Dname In ('Sales', 'Operations')
```

The results pane shows the output of the query:

| Dname      | EC |
|------------|----|
| Operations | 1  |
| Sales      | 1  |

A status bar at the bottom indicates "Query executed successfully." and provides other session details.

## SET OPERATORS

### 1. LIST OUT THE DISTINCT JOBS IN SALES AND ACCOUNTING DEPARTMENTS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
SELECT Designation FROM JOB WHERE JOB_ID IN(SELECT JOB_ID FROM EMPLOYEE
WHERE DEPARTMENT_ID=(SELECT DEPARTMENT_ID FROM DEPARTMENT WHERE DName='SALES'))
UNION
SELECT Designation FROM JOB WHERE JOB_ID IN(SELECT JOB_ID FROM EMPLOYEE
WHERE DEPARTMENT_ID=(SELECT DEPARTMENT_ID FROM DEPARTMENT WHERE DName='ACCOUNTING'))
```

The results pane shows the output of the query:

| Designation |
|-------------|
| Clerk       |

A status bar at the bottom indicates "Query executed successfully." and provides other session details.

2. LIST OUT ALL THE JOBS IN SALES AND ACCOUNTING DEPARTMENTS.

SQLQuery4.sql - LENOVO\AGNIS\_Case\_Study (Lenovo\User (78)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

Case\_Study

Object Explorer

Connect

LENVOO\AGNIS (SQL Server 15.0.2095.3 - Len

- Databases
  - System Databases
  - Database Snapshots
  - Case\_Study
  - Database Diagrams
  - Tables
    - System Tables
    - FileTables
    - External Tables
    - Graph Tables
  - dbo.Department
  - dbo.Loc\_atn
- Views
- External Resources
- Synonyms
- Programmability
- Service Broker
- Storage
- Security
- Internal\_Asgn
- Northwind
- Trendz
- Security
- Server Objects
- Replication
- PolyBase
- Always On High Availability
- Management
- Integration Services Catalogs
- SQL Server Agent (Agent XPs disabled)
- XEvent Profiler

SQLhandsON.sql - not connected

SQLQuery4.sql - LENOVO\AGNIS\User (78)

07\_Oct\_22\_DDL\_DML.i - not connected

```
FROM Employee E inner Join Department D
On E.Department_id = D.Department_id
Group By D.Dname
Having D.Dname In ('Sales', 'Operations')

SELECT Designation FROM JOB WHERE JOB_ID IN(SELECT JOB_ID FROM EMPLOYEE
WHERE DEPARTMENT_ID=(SELECT DEPARTMENT_ID FROM DEPARTMENT WHERE DName='SALES'))
UNION ALL
SELECT Designation
FROM JOB WHERE JOB_ID IN(SELECT JOB_ID FROM EMPLOYEE
WHERE DEPARTMENT_ID=(SELECT DEPARTMENT_ID FROM DEPARTMENT WHERE DName='ACCOUNTING'))
```

Results Messages

| Designation |
|-------------|
| 1 Clerk     |

133 %

Query executed successfully.

Ln 161 Col 85 Ch 85 INS

LENOVO\AGNIS (15.0 RTM) | Lenovo\User (78) | Case\_Study | 00:00:00 | 1 rows

### **3. LIST OUT THE COMMON JOBS IN RESEARCH AND ACCOUNTING DEPARTMENTS IN ASCENDING ORDER.**

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar reads "SQLQuery4.sql - LENOVO\AGNIS.Case\_Study (Lenovo\User (78)) - Microsoft SQL Server Management Studio". The left pane is the Object Explorer, showing the database structure of "LENOVO\AGNIS (SQL Server 15.0.2095.3 - Len...)" with various objects like Databases, Tables, Views, and Security. The right pane is the Query Editor, displaying a T-SQL script. The status bar at the bottom indicates "Query executed successfully." and "0 rows".

```
SELECT Designation FROM JOB WHERE JOB_ID IN(SELECT JOB_ID FROM EMPLOYEE  
WHERE DEPARTMENT_ID=(SELECT DEPARTMENT_ID FROM DEPARTMENT WHERE DName='RESEARCH'))  
INTERSECT  
SELECT Designation FROM JOB WHERE JOB_ID IN(SELECT JOB_ID FROM EMPLOYEE  
WHERE DEPARTMENT_ID=(SELECT DEPARTMENT_ID FROM DEPARTMENT WHERE DName='ACCOUNTING'))
```

## SUB QUERIES

### 1. DISPLAY THE EMPLOYEES LIST WHO GOT THE MAXIMUM SALARY.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'Case\_Study' is selected. In the center pane, a query window displays the following T-SQL code:

```
SELECT Employee_id,First_Name, Salary From Employee Where Salary =  
[(Select Max(Salary)M_Sal From Employee)]
```

The results pane shows a single row of data:

| Employee_id | First_Name | Salary  |
|-------------|------------|---------|
| 7505        | JEAN       | 2850.00 |

At the bottom of the screen, a status bar indicates "Query executed successfully." and provides other session details.

### 2. DISPLAY THE EMPLOYEES WHO ARE WORKING IN SALES DEPARTMENT.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'Case\_Study' is selected. In the center pane, a query window displays the following T-SQL code:

```
SELECT * FROM EMPLOYEE  
WHERE DEPARTMENT_ID IN  
(SELECT DEPARTMENT_ID FROM DEPARTMENT WHERE Dname='SALES')
```

The results pane shows a single row of data:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|--------|------|---------------|
| 7369        | SMITH     | JOHN       | Q           | 667    | 7802       | 1984-12-17 | 800.00 | NULL | 20            |

At the bottom of the screen, a status bar indicates "Query executed successfully." and provides other session details.

### 3. DISPLAY THE EMPLOYEES WHO ARE WORKING AS 'CLERK'.

```
SELECT * FROM EMPLOYEE
WHERE Job_id IN
(SELECT Job_id FROM JOB WHERE Designation= 'Clerk')
```

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|--------|------|---------------|
| 1           | SMITH     | JOHN       | Q           | 667    | 7802       | 1984-12-17 | 800.00 | NULL | 20            |

Query executed successfully.

### 4. DISPLAY THE LIST OF EMPLOYEES WHO ARE LIVING IN "NEW YORK".

```
SELECT * FROM EMPLOYEE E Join Department D On E.Department_id = D.Department_id
WHERE location_id IN
(SELECT location_id FROM Loc_aton WHERE City= 'New York')
```

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date | Salary | Comm | Department_id | DName | Location_id |
|-------------|-----------|------------|-------------|--------|------------|-----------|--------|------|---------------|-------|-------------|
|             |           |            |             |        |            |           |        |      |               |       |             |

Query executed successfully.

## 5. FIND OUT NO. OF EMPLOYEES WORKING IN "SALES" DEPARTMENT.

```
SELECT COUNT(*) ECS FROM EMPLOYEE  
WHERE Department_id IN  
(SELECT Department_id FROM Department WHERE DName= 'SALES')
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The main window contains a query editor with the above SQL code. Below the code, the 'Results' tab displays the output: 'ECS' with a value of '1'. At the bottom, a message indicates 'Query executed successfully.'

## 6. UPDATE THE EMPLOYEES SALARIES, WHO ARE WORKING AS CLERK ON THE BASIS OF 10%.

```
UPDATE EMPLOYEE SET SALARY=(SALARY+SALARY*10/100)  
WHERE JOB_ID IN(SELECT JOB_ID FROM JOB  
WHERE Designation='CLERK')
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The main window contains a query editor with the above SQL code. Below the code, the 'Messages' tab displays '(1 row affected)' and the completion time 'Completion time: 2022-12-01T04:30:02.2056955-08:00'. At the bottom, a message indicates 'Query executed successfully.'

## 7. DELETE THE EMPLOYEES WHO ARE WORKING IN ACCOUNTING DEPARTMENT.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
DELETE FROM EMPLOYEE WHERE DEPARTMENT_ID IN
(SELECT DEPARTMENT_ID FROM DEPARTMENT WHERE DName='ACCOUNTING')
```

The status bar at the bottom indicates 'Query executed successfully.' and shows the execution time as 00:00:00 and 0 rows affected.

## 8. DISPLAY THE SECOND HIGHEST SALARY DRAWING EMPLOYEE DETAILS.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following SQL code:

```
SELECT * FROM EMPLOYEE
WHERE SALARY IN (SELECT MAX(SALARY) FROM EMPLOYEE
WHERE SALARY < (SELECT MAX(SALARY) FROM EMPLOYEE))
```

The results pane shows the output of the query:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary  | Comm | Department_id |
|-------------|-----------|------------|-------------|--------|------------|------------|---------|------|---------------|
| 1           | DENNIS    | LYNN       | S           | 671    | 7839       | 1985-05-15 | 2750.00 | NULL | 30            |

The status bar at the bottom indicates 'Query executed successfully.' and shows the execution time as 00:00:00 and 1 rows.

## 9. DISPLAY THE N'TH HIGHEST SALARY DRAWING EMPLOYEE DETAILS.

## 10. LIST OUT THE EMPLOYEES WHO EARN MORE THAN EVERY EMPLOYEE IN DEPARTMENT 30.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, dbo.Department, and dbo.Location. The central pane contains a query window with the following SQL code:

```
SELECT * FROM EMPLOYEE
WHERE SALARY > ALL(SELECT SALARY FROM EMPLOYEE
WHERE DEPARTMENT_ID=30)
```

The results pane below shows a table with columns Employee\_id, Last\_name, First\_name, Middle\_name, Job\_id, Manager\_id, Hire\_date, Salary, Comm, and Department\_id. There are no rows displayed in the results table.

At the bottom, a message indicates "Query executed successfully." and provides details about the session: LENOVO\AGNIS (15.0 RTM) | Lenovo\User (59) | Case\_Study | 00:00:00 | 0 rows.

## 11. LIST OUT THE EMPLOYEES WHO EARN MORE THAN THE LOWEST SALARY IN DEPARTMENT 30.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the Case\_Study database and its tables like Employee, dbo.Department, and dbo.Location. The central pane contains a query window with the following SQL code:

```
SELECT * FROM EMPLOYEE
WHERE SALARY > ALL(SELECT MIN(SALARY) FROM EMPLOYEE
WHERE DEPARTMENT_ID=30)
```

The results pane below shows a table with columns Employee\_id, Last\_name, First\_name, Middle\_name, Job\_id, Manager\_id, Hire\_date, Salary, Comm, and Department\_id. One row is displayed, corresponding to employee 7369 with the name JOHN SMITH.

At the bottom, a message indicates "Query executed successfully." and provides details about the session: LENOVO\AGNIS (15.0 RTM) | Lenovo\User (59) | Case\_Study | 00:00:00 | 1 rows.

## 12. FIND OUT WHOSE DEPARTMENT HAS NOT EMPLOYEES.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. Two queries are run in the 'SQLQuery4.sql' window:

```
SELECT * FROM EMPLOYEE  
WHERE SALARY < ALL(SELECT MIN(SALARY) FROM EMPLOYEE  
WHERE DEPARTMENT_ID=30)  
  
SELECT DEPARTMENT_ID,DName FROM DEPARTMENT  
WHERE DEPARTMENT_ID NOT IN (SELECT DEPARTMENT_ID FROM EMPLOYEE)
```

The results window shows the output of the second query:

| DEPARTMENT_ID | DName      |
|---------------|------------|
| 10            | Accounting |

Message bar: Query executed successfully.

## 13. FIND OUT WHICH DEPARTMENT DOES NOT HAVE ANY EMPLOYEES.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. Two queries are run in the 'SQLQuery4.sql' window:

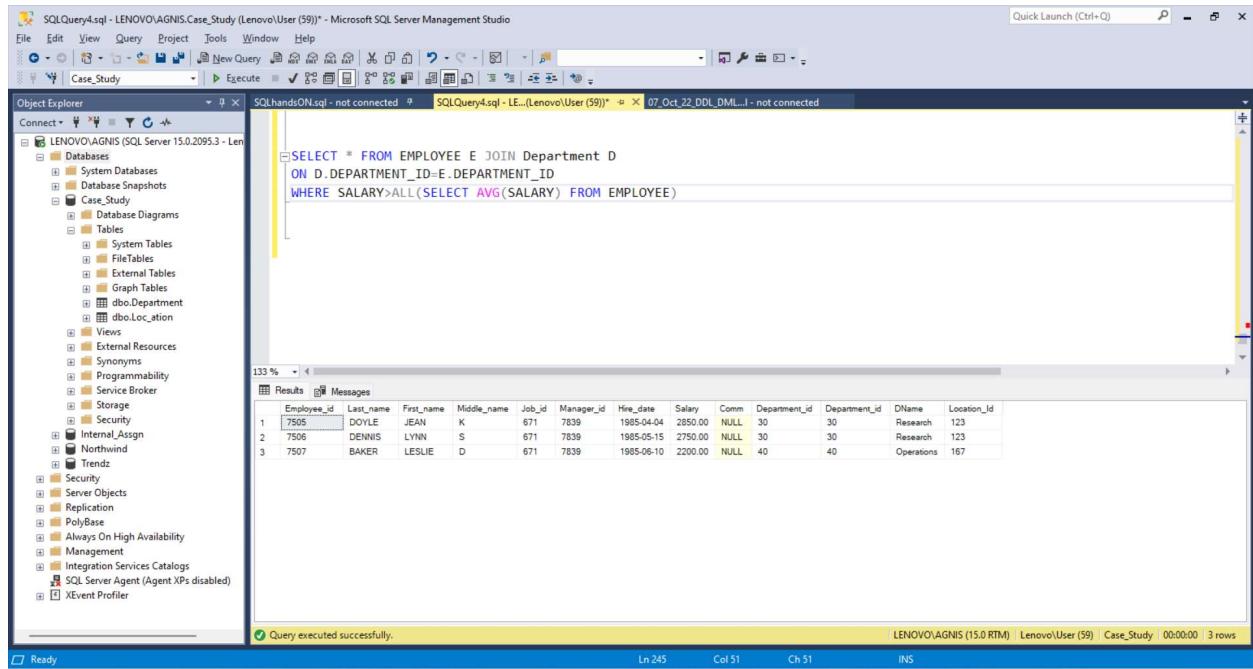
```
SELECT * FROM EMPLOYEE  
WHERE SALARY < ALL(SELECT MIN(SALARY) FROM EMPLOYEE  
WHERE DEPARTMENT_ID=30)  
  
SELECT DName FROM DEPARTMENT  
WHERE DEPARTMENT_ID NOT IN (SELECT DEPARTMENT_ID FROM EMPLOYEE)
```

The results window shows the output of the second query:

| DName      |
|------------|
| Accounting |

Message bar: Query executed successfully.

#### 14. FIND OUT THE EMPLOYEES WHO EARN GREATER THAN THE AVERAGE SALARY FOR THEIR DEPARTMENT



The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'Case\_Study'. The central pane contains a query window with the following T-SQL code:

```
SELECT * FROM EMPLOYEE E JOIN Department D
ON D.DEPARTMENT_ID=E.DEPARTMENT_ID
WHERE SALARY > ALL(SELECT AVG(SALARY) FROM EMPLOYEE)
```

The results pane displays three rows of employee data:

| Employee_id | Last_name | First_name | Middle_name | Job_id | Manager_id | Hire_date  | Salary  | Comm | Department_id | Department_id | DName      | Location_Id |
|-------------|-----------|------------|-------------|--------|------------|------------|---------|------|---------------|---------------|------------|-------------|
| 7505        | DOYLE     | JEAN       | K           | 671    | 7839       | 1985-04-04 | 2850.00 | NULL | 30            | 30            | Research   | 123         |
| 7506        | DENNIS    | LYNN       | S           | 671    | 7839       | 1985-05-15 | 2750.00 | NULL | 30            | 30            | Research   | 123         |
| 7507        | BAKER     | LESLIE     | D           | 671    | 7839       | 1985-06-10 | 2200.00 | NULL | 40            | 40            | Operations | 167         |

At the bottom of the results pane, a message indicates: "Query executed successfully." The status bar at the bottom right shows: LENOVO\AGNIS (15.0 RTM) | Lenovouser (59) | Case\_Study | 00:00:00 | 3 rows.