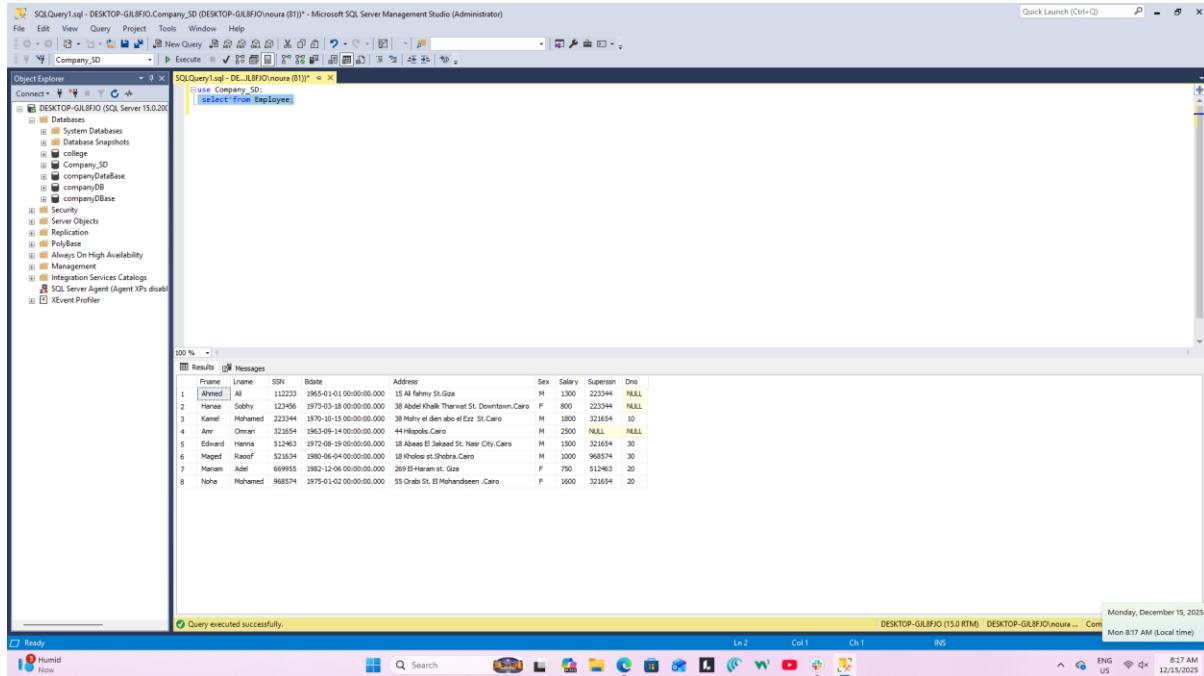


Noura almaslari

DML & DQL Task on Company database

DQL

1. Display all employee data.



The screenshot shows the SSMS interface with the following details:

- Object Explorer:** Shows the database structure, including the **Company_SD** database.
- SQL Query Editor:** Contains the following SQL code:

```
use Company_SD
select * from Employee;
```
- Results Grid:** Displays the results of the query, listing 8 employees with columns: ID, Name, SSN, Date, Address, Sex, Salary, Supervisor, and Dept.
- Status Bar:** Shows "Query executed successfully." and the system status: Monday, December 15, 2023 | DESKTOP-GILBFIO (15.0 RTM) | DESKTOP-GILBFIO\lnoura ... | Mon 8:17 AM (Local time)

ID	Name	SSN	Date	Address	Sex	Salary	Supervisor	Dept
1	Ahmed Ali	11233	1965-01-01 00:00:00.000	13 Al Fahmy St.Giza	M	1500	221654	NULL
2	Hossam Sobhy	223466	1970-03-18 00:00:00.000	38 Abd el Khalek Thonmat St. Downtown,Cairo	F	800	221654	NULL
3	Kamel Mohamed	223344	1970-10-15 00:00:00.000	38 Hulyy el den abo el Ezz St.Cairo	M	1800	321654	10
4	Amr Osman	321654	1963-09-14 00:00:00.000	44 Hippod. Cairo	M	2500	NULL	NULL
5	Edward Hanna	512463	1972-08-19 00:00:00.000	18 Alaa El Jaleed St. Near City.Cairo	M	1500	321654	30
6	Maged Raaf	521654	1980-06-04 00:00:00.000	18 Khlos et Shobra.Cairo	M	1000	968574	30
7	Mariaan Adel	669955	1980-12-06 00:00:00.000	269 El Haran st. Giza	F	750	512463	20
8	Noha Mohamed	968574	1975-01-02 00:00:00.000	55 Orabi St. El Mohandseen .Cairo	F	1600	321654	20

2. Display employee first name, last name, salary, and department number.

```

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\ouara (8)) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer
File Edit View Query Project Tools Window Help
[...]
[+] Company_SD
    [+] Databases
        [+] System Databases
            [+] college
            [+] Company_SD
            [+] company DataBase
            [+] companyDB
            [+] companyDBase
        [+] Security
        [+] Server Objects
        [+] Replication
        [+] PolyBase
        [+] Always On High Availability
        [+] Management
        [+] Integration Services Catalogs
        [+] SQL Server Agent (Agent xp's disabled)
        [+] XEvent Profiler

SQLQuery1 - DESKTOP-GILBFIO\ouara (8) - >
use Company_SD
select * from Employee;

Results Messages
Name Lname Salary Dno
1 Ahmed Ali 1300 NULL
2 Haneen Sobhy 800 NULL
3 Kamel Mohamed 1800 10
4 Amr Orman 2500 NULL
5 Edwaed Hanna 900 30
6 Maged Raouf 2000 30
7 Marwan Adel 750 20
8 Noha Mohamed 1600 20

Query executed successfully.

```

3. Display each employee's full name and their annual commission (10% of annual salary) as ANNUAL_COMM.

```

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\ouara (8)) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer
File Edit View Query Project Tools Window Help
[...]
[+] Company_SD
    [+] Databases
        [+] System Databases
            [+] college
            [+] Company_SD
            [+] company DataBase
            [+] companyDB
            [+] companyDBase
        [+] Security
        [+] Server Objects
        [+] Replication
        [+] PolyBase
        [+] Always On High Availability
        [+] Management
        [+] Integration Services Catalogs
        [+] SQL Server Agent (Agent xp's disabled)
        [+] XEvent Profiler

SQLQuery1 - DESKTOP-GILBFIO\ouara (8) - >
use Company_SD
select * from Employee;
SELECT FirstName + ' ' + LastName AS FULL_NAME,
       (Salary * 12 * 0.10) AS ANNUAL_COMM
FROM EMPLOYEE;

Results Messages
FULL_NAME ANNUAL_COMM
1 Ahmed Ali 1560.00
2 Haneen Sobhy 960.00
3 Kamel Mohamed 2160.00
4 Amr Orman 3000.00
5 Edwaed Hanna 1080.00
6 Maged Raouf 1200.00
7 Marwan Adel 960.00
8 Noha Mohamed 1920.00

Query executed successfully.

```

4. Display employee ID and name for employees earning more than 1000 LE monthly.

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\ouara (8)) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT * FROM Employee;
SELECT * FROM Employee;
SELECT * FROM Employee;
SELECT * FROM Employee;

```

Results

	SSN	Frame	Lname
1	112233	Ahmed	Ali
2	223344	Kamel	Mohamed
3	321654	Amr	Omran
4	512463	Edward	Hanna
5	968574	Naha	Mohamed

Query executed successfully.

5. Display employee ID and name for employees earning more than 10000 LE annually.

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\ouara (8)) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT * FROM Employee;
SELECT * FROM Employee;
SELECT * FROM Employee;
SELECT * FROM Employee;

```

Results

	SSN	Frame	Lname
1	112233	Ahmed	Ali
2	223344	Kamel	Mohamed
3	321654	Amr	Omran
4	512463	Edward	Hanna
5	521634	Haged	Raoof
6	968574	Naha	Mohamed

Query executed successfully.

6. Display names and salaries of all female employees.

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\ouura (81)) - Microsoft SQL Server Management Studio (Administrator)

```

-- SQLQuery1 - DE_JLBFI0\ouura (81) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer
File Edit View Query Project Tools Window Help
New Query Execute Find Replace Copy All Paste All Refresh
SQLQuery1.sql - DESKTOP-GILBFIO\ouura (81) - Microsoft SQL Server Management Studio (Administrator)
SELECT Fname, Lname, Salary, Dno FROM Employee;
SELECT Fname + ' ' + Lname AS FULL_NAME,
       (Salary * 12 * 0.10) AS ANNUAL_CPN
FROM EMPLOYEE;
SELECT SSN, Fname, Lname
FROM EMPLOYEE
WHERE Salary > 1000;
SELECT SSN, Fname, Lname
FROM Employee
WHERE Salary < 10000;
SELECT Fname, Lname, Salary
FROM Employee
WHERE Sex = 'F';

```

Results

	Fname	Lname	Salary
1	Hanen	Sobhy	800
2	Mariam	Adel	750
3	Noha	Hohamed	1600

Query executed successfully.

DESKTOP-GILBFIO (15.0 RTM) DESKTOP-GILBFIO\ouura ... Company_SD 00:00:00 3 rows

Ready 22°C Sunny

22°C Sunny

Search

8:41 AM 12/15/2025

7. Display employees whose salary is between 2000 and 5000.

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\ouura (81)) - Microsoft SQL Server Management Studio (Administrator)

```

-- SQLQuery1 - DE_JLBFI0\ouura (81) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer
File Edit View Query Project Tools Window Help
New Query Execute Find Replace Copy All Paste All Refresh
SQLQuery1.sql - DESKTOP-GILBFIO\ouura (81) - Microsoft SQL Server Management Studio (Administrator)
WHERE Salary*12>10000;

SELECT Fname, Lname, Salary
FROM EMPLOYEE
WHERE Sex = 'F';

SELECT Fname, Lname, Salary
FROM Employee
WHERE Salary BETWEEN 2000 AND 5000;

```

Results

	Fname	Lname	Salary
1	Ahmed	Orman	2500

Query executed successfully.

DESKTOP-GILBFIO (15.0 RTM) DESKTOP-GILBFIO\ouura ... Company_SD 00:00:00 1 rows

Ready 22°C Sunny

22°C Sunny

Search

8:44 AM 12/15/2025

8. Display employee names ordered by salary descending.

```

SELECT Fname, Lname, Salary
FROM Employee
WHERE Salary BETWEEN 2000 AND 5000;

SELECT Fname, Lname
FROM Employee
ORDER BY Salary DESC;

```

	Fname	Lname
1	Amr	Omran
2	Kamel	Mohamed
3	Noha	Mohamed
4	Edward	Hanna
5	Ahmed	Ali
6	Maged	Raof
7	Hanan	Sobhy
8	Marwan	Adel

9. Display the maximum, minimum, and average salary.

```

SELECT Fname, Lname, Salary
FROM Employee
WHERE Salary BETWEEN 2000 AND 5000;

SELECT Fname, Lname
FROM Employee
ORDER BY Salary DESC;

SELECT MAX(Salary) AS MAX_Salary,
       MIN(Salary) AS MIN_Salary,
       AVG(Salary) AS AVG_Salary
FROM Employee;

```

	MAX_Salary	MIN_Salary	AVG_Salary
1	2500	750	1406

10. Display the total number of employees.

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\inoura (81)) - Microsoft SQL Server Management Studio (Administrator)

```

FROM Employee
ORDER BY Salary DESC;

SELECT MAX(Salary) AS MAX_Salary,
       MIN(Salary) AS MIN_Salary,
       AVG(Salary) AS AVG_Salary
FROM Employee;

SELECT COUNT(*) AS TOTAL_Employees
FROM Employee;

```

Results

TOTAL_Employees
8

Query executed successfully.

11. Display employees whose first name starts with 'A'.

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\inoura (81)) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT MAX(Salary) AS MAX_Salary,
       MIN(Salary) AS MIN_Salary,
       AVG(Salary) AS AVG_Salary
FROM Employee;

SELECT COUNT(*) AS TOTAL_Employees
FROM Employee;

SELECT Fname, Lname
FROM EMPLOYEE
WHERE Fname LIKE 'a%';

```

Results

Fname	Lname
Ahmed	Ali
Amr	Orman

Query executed successfully.

12. Display employees who have no supervisor.

SQLQuery1.sql - DESKTOP-GILBFIQ\Company_SD (DESKTOP-GILBFIQ\mounra (8)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

New Query New Item Object Explorer

SQLQuery1.sql - DESKTOP-GILBFIQ\mounra (8) □ X

```
AVG(Salary) AS AVG_Salary
FROM Employee;

SELECT COUNT(*) AS TOTAL_Employees
FROM Employee;

SELECT Fname, Lname
FROM Employee
WHERE Fname LIKE 'a%';

SELECT Fname, Lname
FROM Employee
WHERE Superssn IS NULL;
```

Results Messages

	Fname	Lname
1	Amit	Deman

Query executed successfully.

LN 50 Cal 24 Ch 24 INS

DESKTOP-GILBFIQ (15.0 RTM) DESKTOP-GILBFIQ\mounra ... Company_SD 00:00:00 1 rows

Humid Now

ENG US 8:53 AM 15/12/2025

DML

14. Insert your personal data into the employee table (Department = 30, SSN = 102672, Superssn = 112233, Salary = 3000).

The screenshot shows the Microsoft SQL Server Management Studio (Administrator) interface. The title bar reads "SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\mounra (S)) - Microsoft SQL Server Management Studio (Administrator)". The main area displays a query window with the following T-SQL code:

```
SELECT Fname, Lname
FROM Employee
WHERE Superssn IS NULL;

INSERT INTO EMPLOYEE (Fname, Lname, SSN, Superssn, Dno, Salary)
VALUES ('Noura', 'Al-Maskari', 102672, 112233, 30, 3000);
```

The Object Explorer on the left pane shows the database structure for "Company_SD". The "Tables" node is expanded, showing the "Employee" table with its columns: Fname (nvarchar(50), null), Lname (nvarchar(50), null), SSN (int, null, null), Superssn (int, null, null), Dno (int, null, null), and Salary (int, null). The "Messages" pane at the bottom shows "(1 row affected)" and the completion time: 2025-12-15T09:02:25.5218662+04:00. The status bar at the bottom right indicates "Query executed successfully.".

15. Insert another employee (your friend) in department 30 with SSN = 102660, leaving salary and supervisor number NULL.

```

File Edit View Query Project Tools Window Help
File New Query Object Explorer SQL Server Object Explorer
SQLQuery1.sql - DESKTOP-GILBFIO\ourea (81) - Microsoft SQL Server Management Studio (Administrator)
WHERE Fname LIKE 'A%';

SELECT Fname, Lname
FROM Employee
WHERE Superssn IS NULL;

INSERT INTO EMPLOYEE (Fname, Lname, SSN, Superssn, Dno, Salary)
VALUES ('Noura', 'Al-Maskari', 102672, 112233, 30, 3000);

INSERT INTO Employee (Fname, Lname, SSN, Dno, SALARY, Superssn)
VALUES ('Khadija', 'Al-Maskari', 102660, 30, NULL, NULL);

```

Completion time: 2025-12-15T09:04:38.3225637+04:00

Query executed successfully.

16. Update your salary by 20%.

```

File Edit View Query Project Tools Window Help
File New Query Object Explorer SQL Server Object Explorer
SQLQuery1.sql - DESKTOP-GILBFIO\ourea (81) - Microsoft SQL Server Management Studio (Administrator)
WHERE Fname LIKE 'A%';

INSERT INTO EMPLOYEE (Fname, Lname, SSN, Superssn, Dno, Salary)
VALUES ('Noura', 'Al-Maskari', 102672, 112233, 30, 3000);

INSERT INTO Employee (Fname, Lname, SSN, Dno, SALARY, Superssn)
VALUES ('Khadija', 'Al-Maskari', 102660, 30, NULL, NULL);

UPDATE Employee
SET Salary = Salary * 1.20
WHERE SSN = 102672;

```

Completion time: 2025-12-15T09:06:51.2033308+04:00

Query executed successfully.

17. Increase salaries by 5% for all employees in department 30.

SQLQuery1.sql - DESKTOP-GILBFI0.Company_SD (DESKTOP-GILBFI0\mounra (8)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

New Query New Item Object Explorer

SQLQuery1.sql - DESKTOP-GILBFI0\mounra (8) ×

```
INSERT INTO EMPLOYEE (Fname, Lname, SSN, Superssn, Dno, Salary)
VALUES ('Noura', 'Al-Maskari', 102672, 112253, 30, 3800);

INSERT INTO Employee (Fname, Lname, SSN, Dno, SALARY, Superssn)
VALUES ('Khadija', 'Al-Maskari', 102660, 30, NULL, NULL);

UPDATE Employee
SET Salary = Salary * 1.20
WHERE SSN = 102672;

UPDATE Employee
SET Salary = Salary * 1.05
WHERE Dno = 30;
```

150 % ↻ [?] Messages

(4 rows affected)

Completion time: 2025-12-15T09:09:44.1487356+04:00

18. Set commission to NULL for employees earning less than 2000.

SQLQuery1.tql - DESKTOP-GILBFJ0\inoures (31)* - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Object Explorer

Comments

Company_SD

GILBFJ0 (SQL Server 15.0.2005 - DESKTOP-GILBFJ0\inoures (31))

Tables

Item Databases

Table Snapshots

Triggers

Replication

Security

Database Diagrams

Tables

System Tables

File Tables

File and File Groups

Graph Tables

dbo.Departments

dbo.Dependent

dbo.Employee

Employee

Frame (nvarchar(50), null)

Lname (nvarchar(50), null)

→ SSN (PK, int, not null)

Bdate (datetime, null)

Address (nvarchar(50), null)

City (nvarchar(50), null)

Sex (nvarchar(50), null)

Salary (int, null)

→ Superssn (FK, int, null)

→ Deptno (FK, int, null)

Key

Constraints

Triggers

Indexes

Statistics

dbo.Project

dbo.WorksFor

Views

External Resources

Schemas

Programmability

Service Broker

Storage

Security

Imports/Database

Imports/DB

CompanyDbase

Ready

SQLQuery1.tql - DESKTOP-GILBFJ0\inoures (31)*

UPDATE Employee
SET Salary = Salary * 1.05
WHERE Dno = 30;

ALTER TABLE Employee
ADD Commission DECIMAL(10,2);

UPDATE Employee
SET Commission = NULL
WHERE Salary < 2000;

SELECT Fname, Lname, Salary, Dno, Commission FROM Employee;

Results Messages

	Fname	Lname	Salary	Dno	Commission
1	Edmund	Adler	NULL	30	NULL
2	Noura	Al-Masri	3780	30	NULL
3	Ahmed	All	1300	NULL	NULL
4	Hanra	Sobhy	800	NULL	NULL
5	Kamel	Mohamed	1800	10	NULL
6	Amr	Omrani	2500	NULL	NULL
7	Edward	Henna	1575	30	NULL
8	Maged	Raoof	1050	30	NULL
9	Naresh	Shah	250	30	NULL
10	Natalia	Mohamed	1600	20	NULL

Query executed successfully.

LN 79 Col 1 Ch 1 INS

DESKTOP-GILBFJ0 (15.0 RTM) DESKTOP-GILBFJ0\inoures ... Company_SD 00:00:00 10 rows

9:19 AM 12/13/2025

ENG US WiFi

22°C sunny

19. Delete employees with NULL salary

The screenshot shows the SSMS interface with the following details:

- Object Explorer:** Shows the database structure for "Company_SD".
- SQLQuery1.sql - DE...ILBFI0\inoures (B1) - Microsoft SQL Server Management Studio (Administrator)**
- Queries:** Two queries are listed:
 - UPDATE Employee**
SET Commission = NULL
WHERE Salary < 2000;
 - DELETE FROM Employee**
WHERE Salary IS NULL;
- Status Bar:** Shows "Query executed successfully."
- System Bar:** Includes icons for battery (22%), network (ENG US), signal (92/15/2025), and time (9:20 AM).

After Deleting employees with NULL salary

SQLQuery1.sql - DESKTOP-GILBFIO.Company_SD (DESKTOP-GILBFIO\mounira (81)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

New Query New Query Results New Query Design New Query Script New Query Grid New Query Diagram

Execute Cancel Run Stop Refresh

Object Explorer

Connect + Company_SD

GILBFIO (SQL Server 15.0.2000.5 - DESKTOP-GILBFIO) - Company_SD

System Tables

Tables

External Tables

Graph Tables

Views

Dependents

Dependencies

Columns

Frame (nvarchar(50), null)

Lname (nvarchar(50), null)

→ SGN (int, null)

→ Dno (int, null)

Address (nvarchar(50), null)

Sex (nvarchar(50), null)

Salary (int, null)

→ Superssn (FK, int, null)

→ Dno (PK, int, null)

Keys

Constraints

Triggers

Indexes

Statistics

dbo.Project

dbo.WorksFor

Views

Extended Resources

Synonyms

Programmability

Service Broker

Storage

Security

Import/Export

Import/Export

Objects

Automation

Script

SQLQuery1.sql - DESKTOP-GILBFIO\mounira (81) -

UPDATE Employee
SET Commission = NULL
WHERE Salary < 2000;

SELECT Frame, Lname, Salary, Dno, Commission FROM Employee;

DELETE FROM Employee
WHERE Salary IS NULL;

Results Messages

	Frame	Lname	Salary	Dno	Commission
1	Noura	Al-Hoskan	3780	30	NULL
2	Ahmed	All	1300	N...	NULL
3	Hanasa	Sobhy	800	N...	NULL
4	Kamel	Mohamed	1800	10	NULL
5	Amr	Omeran	2500	N...	NULL
6	Eman	El-Sherif	1879	30	NULL
7	Maged	Rasaf	1650	30	NULL
8	Maram	Adel	750	20	NULL
9	Noha	Mohamed	1600	20	NULL

Query executed successfully.

DESKTOP-GILBFIO (15.0 RTM) DESKTOP-GILBFIO\mounira ... Company_SD 00:00:00 9 rows

LN 78 Call 60 Ch 60 INS

Ready

BOROUGE +120%

ENG US 9:22 AM 12/15/2025