

## Company Database (the provided database) – JOIN Queries

1. Display the department ID, department name, manager ID, and the full name of the manager.

2. Display the names of departments and the names of the projects they control.

SQLQuery1.sql - DESKTOP-GILBFIO\Company\_SD (DESKTOP-GILBFIO\hours (5)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

New Query New Item Object Explorer

SQLQuery1.sql - DE... (8 rows) [Open] [X]

on D.MGRSSN=E.SSN;

select  
D.Dname,  
P.Pname  
from Departments D join Project P  
on D.Dnum=P.Dnum

Results Messages

	Dname	Pname
1	DP1	Al.Solmanah
2	DP1	Al.Rabeh
3	DP1	Al.Randah
4	DP2	Al.Rosad
5	DP2	Al.Malih
6	DP3	Pitcha.american
7	DP2	Ebad@Rahman

Query executed successfully.

Ready

LN 10 Col 1 Ch 1 RS 6

DESKTOP-GILBFIO (15.0 RTM) DESKTOP-GILBFIO\hours Company\_SD 00:00:00 7 rows

ENG dx 9:34 AM

3. Display full data of all dependents, along with the full name of the employee they depend on.

The screenshot shows the Microsoft SQL Server Management Studio interface. A query window displays the following SQL code:

```

select Dep.*,
       E.Fname + ' ' + E.Lname AS [Name]
  from Dependent Dep join Employee E
    on Dep.ESSN = E.SSN;
  
```

The results pane shows the following data:

	ESSN	Dependent_name	Sex	Bdate
1	112233	Hala Saed Ali	F	1970-10-18 00:00:00.000
2	223344	Ahmed Kamel Shamsi	M	1998-03-27 00:00:00.000
3	223344	Mona Adel Mohamed	F	1972-01-20 00:00:00.000
4	323455	Amr Hassan Orman	M	1995-03-20 00:00:00.000
5	323455	Ramy Amr Orman	M	1996-01-30 00:00:00.000
6	323654	Saraa Gamal	F	1973-05-16 00:00:00.000
7	512463	Nora Ghaly	F	1978-06-22 00:00:00.000
8	512463	Sara Edward	F	2001-09-15 00:00:00.000

Below the table, a message states "Query executed successfully."

4. Display the project ID, name, and location of all projects located in Cairo or Alex.

The screenshot shows the Microsoft SQL Server Management Studio interface. A query window displays the following SQL code:

```

select * from Project
  where City in ('Cairo', 'Alex');
  
```

The results pane shows the following data:

Pnumber	Pname	Plocation
100	Al_Soliman	Cairo_Alex Road
500	Al_Rehab	Nasr City
600	Pitcho American	Maady
700	Ebed B Rahman	Ring Road

Below the table, a message states "Query executed successfully."

5. Display all project data where the project name starts with the letter 'A'.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, the 'Company\_SD' database is selected. In the center pane, a query window displays the following SQL code:

```
select * from project
where Pname like 'A%';
```

The results pane shows a table with columns: Pname, Pnumber, Plocation, City, and Drum. The data is as follows:

Pname	Pnumber	Plocation	City	Drum
AL_Solimanah	100	Cairo_Alex_Road	Alex	10
Al Rabwah	200	6th of October City	Giza	10
Al Raadah	300	Zaed City	Giza	10
Al Reed	400	Cairo_Fayoum_Road	Giza	20
Al Rehab	500	New City	Cairo	30

At the bottom of the results pane, it says "Query executed successfully." The status bar at the bottom right shows the date and time as 12/22/2023 9:51 AM.

6. Display the IDs and names of employees in department 30 with a salary between 1000 and 2000 LE.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, the 'Company\_SD' database is selected. In the center pane, a query window displays the following SQL code:

```
select
SSN,
Fname+' '+Lname AS FullName
from Employee
where Dno=30 and salary between 1000 and 2000;
```

The results pane shows a table with columns: SSN and FullName. The data is as follows:

SSN	FullName
512463	Edward_Hanna
521634	Maged_Raaf

At the bottom of the results pane, it says "Query executed successfully." The status bar at the bottom right shows the date and time as 12/22/2023 10:02 AM.

7. Retrieve the names of employees in department 10 who work  $\geq 10$  hours/week on the "AL Rabwah" project.

```

select E.Fname+' '+E.Lname AS Employee_NAME
from Employee E
join Works_for W
on W.ESSn=E.SSN
join Project P
on P.Pnumber=W.Pno
where E.Dno=10
and P.Pname ='AL Rabwah'
and W.Hours>=10;

```

Employee\_NAME  
1 Kamel Mohamed

Query executed successfully.

8. Find the names of employees who are directly supervised by "Kamel Mohamed".

```

select E.Fname+' '+E.Lname AS Employee_Name
from Employee E
join Employee s
on E.Superssn=s.SSN
where S.Fname='Kamel'
and s.Lname='Mohamed';

```

Employee\_Name  
1 Ahmed Ali  
2 Haneen Sobhy

Query executed successfully.

9. Retrieve the names of employees and the names of the projects they work on, sorted by project name.

Company Database (the provided database) - JOIN Queries.sql - DESKTOP-GILBFJO\Company\_SD (DESKTOP-GILBFJO\Inouar (63)) - Microsoft SQL Server Management Studio (Administrator)

```
SELECT E.Fname + ' ' + E.Lname AS EmployeeName,
P.Pname
FROM Employee E
JOIN Works_for W
ON E.SSN = W.ESSN
JOIN Project P
ON W.Pno = P.Pnumber
ORDER BY P.Pname;
```

Results

EmployeeName	Pname
1 Kamel Mohamed	Ali Rabieh
2 Kamel Mohamed	Ali Zawadah
3 Maged Raaf	Ali Zawadah
4 Noha Mohamed	Ali Zawadah
5 Noha Mohamed	Ali Rabieh
6 Kamel Mohamed	Ali Rabieh
7 Edward Hanna	Ali Rabieh
8 Maged Raaf	Ali Rabieh
9 Maged Raaf	Ali Rowad
10 Maran Adel	Ali Rowad
11 Noha Mohamed	Ali Rowad
12 Ahmed Ali	Al Solimanah
13 Noha Mohamed	Al Solimanah
14 Maran Adel	Ebtihal El Fahman
15 Noha Mohamed	Ebtihal El Fahman
16 Edward Hanna	Pitch american
17 Maged Raaf	Pitch american

Query executed successfully.

10. For each project located in Cairo, display the project number, controlling department name, manager's last name, address, and birthdate.

Company Database (the provided database) - JOIN Queries.sql - DESKTOP-GILBFJO\Company\_SD (DESKTOP-GILBFJO\Inouar (63)) - Microsoft SQL Server Management Studio (Administrator)

```
SELECT P.Pnumber,
D.Dname,
E.Lname AS ManagerLastName,
E.Address,
E.Bdate
FROM Project P
JOIN Departments D
ON P.Dnum = D.Dnum
JOIN Employee E
ON D.MGRSSN = E.SSN
WHERE P.Plocation = 'Cairo';
```

Results

Pnumber	Dname	ManagerLastName	Address	Bdate
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Query executed successfully.

11. Display all data of managers in the company.

Company Database (the provided database) - JOIN Queries.sql - DESKTOP-GILBFIO.Company\_SD (DESKTOP-GILBFIO\oura (63)) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT DISTINCT E.*
FROM Employee E
JOIN Departments D
ON E.SSN = D.MGRSSN;

```

Results

Frame	Lname	SSN	Bdate	Address	Sex	Salary	Superssn	Dno	Commission
1	Kamel	Mohamed	223344	1970-10-15 00:00:00.000	M	1800	321654	10	NULL
2	Edward	Hanna	512463	1970-08-19 00:00:00.000	M	1575	321654	30	NULL
3	Noha	Mohamed	986874	1975-01-02 00:00:00.000	F	1600	321654	20	NULL

Query executed successfully.

12. Display all employees and their dependents, even if some employees have no dependents.

Company Database (the provided database) - JOIN Queries.sql - DESKTOP-GILBFIO.Company\_SD (DESKTOP-GILBFIO\oura (63)) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT E.Fname + ' ' + E.Lname AS EmployeeName,
Dep.Dependent_name
FROM Employee E
LEFT JOIN Dependent Dep
ON E.SSN = Dep.ESSN;

```

Results

EmployeeName	Dependent_name
1 Noura Al-Husaini	NULL
2 Ahmed Ali	Hala Saeed Ali
3 Haneen Sobhy	NULL
4 Kamel Mohamed	Kamel Mohamed
5 Khaled Mohamed	Khaled Mohamed
6 Ann Omeran	Omar Ann Omeran
7 Ann Omeran	Ramy Ann Omeran
8 Ann Omeran	Saraa Gamil
9 Edward Hanna	Nora Ghaly
10 Edward Hanna	Sara Edward
11 Maged Raouf	NULL
12 Marwan Adel	NULL
13 Noha Mohamed	NULL

Query executed successfully.