

Company Database (the provided database) – JOIN Queries

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

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
SELECT
    d.Dnum AS DepartmentID,
    d.Dname AS DepartmentName,
    d.EmpSSN AS ManagerID,
    e.FirstName + ' ' + e.LastName AS ManagerFullName
FROM Department d
JOIN Employee e
    ON d.EmpSSN = e.SSN;
```

The Results pane displays the following data:

DepartmentID	DepartmentName	ManagerID	ManagerFullName
1	Human Resources	1	Ahmed Abuasad
2	Finance	2	Omar Alkhal
3	Information Technology	3	Fatma Alharthy
4	Marketing	4	Yusuf Alkhami
5	Operations	5	Layla Alkhami

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

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

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
FROM Department d
JOIN Employee e
    ON d.EmpSSN = e.SSN;

SELECT
    d.Dname AS DepartmentName,
    p.Pname AS ProjectName
FROM Department d
JOIN Project p
    ON d.Dnum = p.Dnum;
```

The Results pane displays the following data:

DepartmentName	ProjectName
Finance	Payroll System
Information Technology	Website Upgrade
Human Resources	Recruitment Drive
Marketing	Marketing Campaign
Operations	Logistics Optimization

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

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. The query editor contains the following SQL code:

```

FROM Department d
JOIN Project p
ON d.Dnum = p.Dnum;

SELECT
    dep.*,
    e.FirstName + ' ' + e.LastName AS EmployeeFullName
FROM EMPDependent dep
JOIN Employee e
ON dep.EmpSSN = e.SSN;

```

The Results pane displays the following data:

DependentName	EmpSSN	Dnum	DependentGender	DOBdate	EmployeeFullName
Sara	1	1	1	2010-05-12	Ahmed AlBusaid
Ones	2	2	0	2012-09-23	Omar AlBuali
Huda	3	3	1	2015-11-15	Fatma Alharthy
Khalid	4	4	0	2017-04-08	Yusuf AlRasahi
Aisha	5	5	1	2018-12-19	Layla AlAnsari

The status bar at the bottom indicates "Query executed successfully." and "5 rows".

4. Display the project ID, name, and location of all projects located in Muscat' and Barka.

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```

e.FirstName + ' ' + e.LastName AS EmployeeFullName
FROM EMPDependent dep
JOIN Employee e
ON dep.EmpSSN = e.SSN;

SELECT
    Pnum,
    Pname,
    PLocation
FROM Project
WHERE City IN ('Muscat', 'Barka');

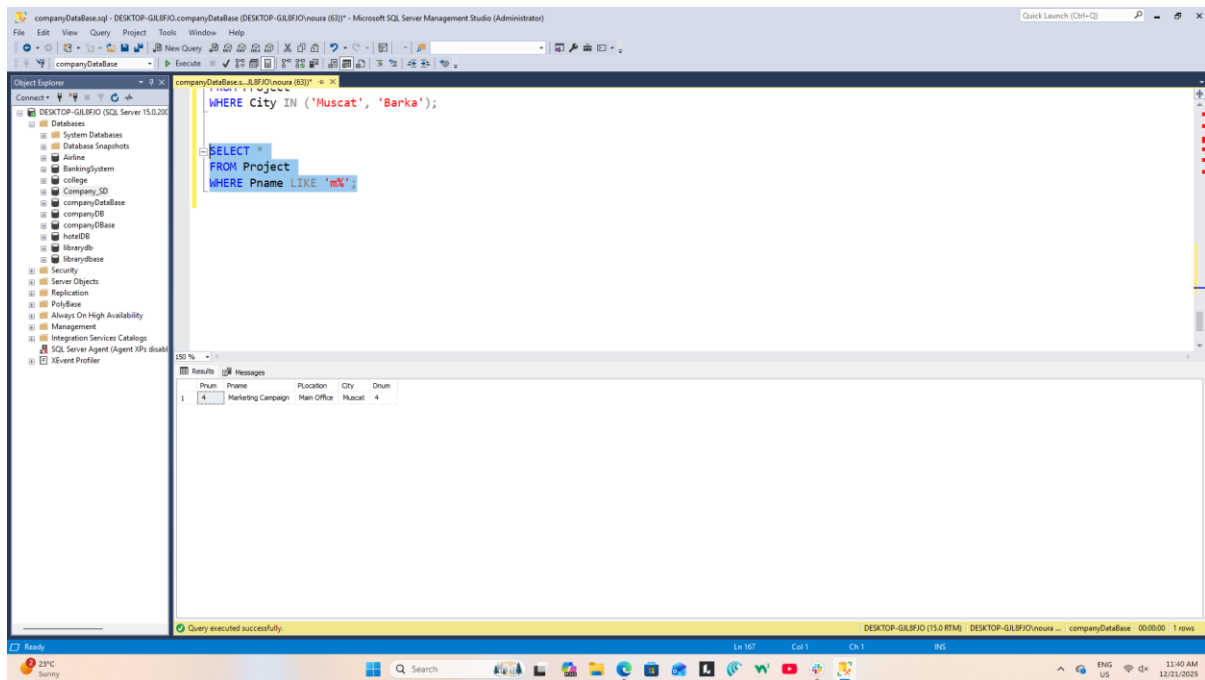
```

The Results pane displays the following data:

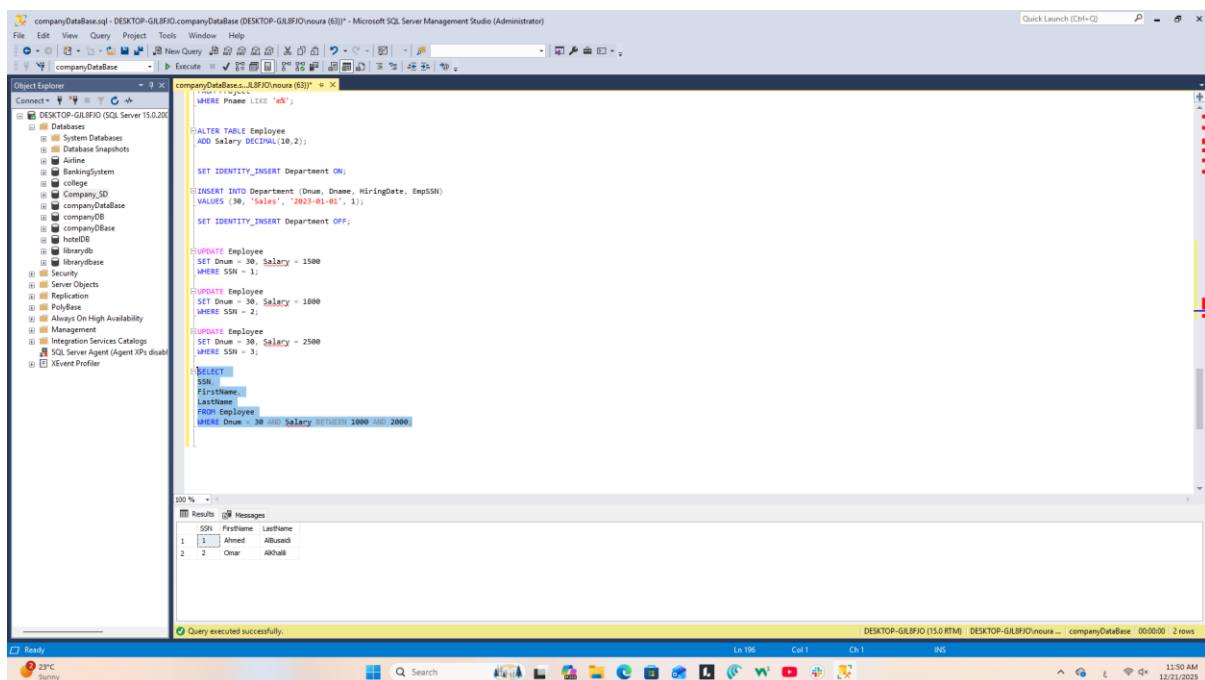
Pnum	Pname	PLocation
1	Payroll System	Main Office
4	Marketing Campaign	Main Office
5	Logistics Optimization	Warehouse

The status bar at the bottom indicates "Query executed successfully." and "3 rows".

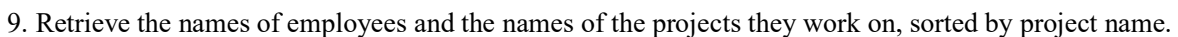
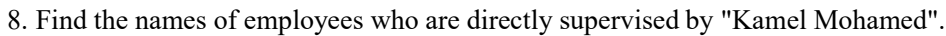
5. Display all project data where the project name starts with the letter 'M'.

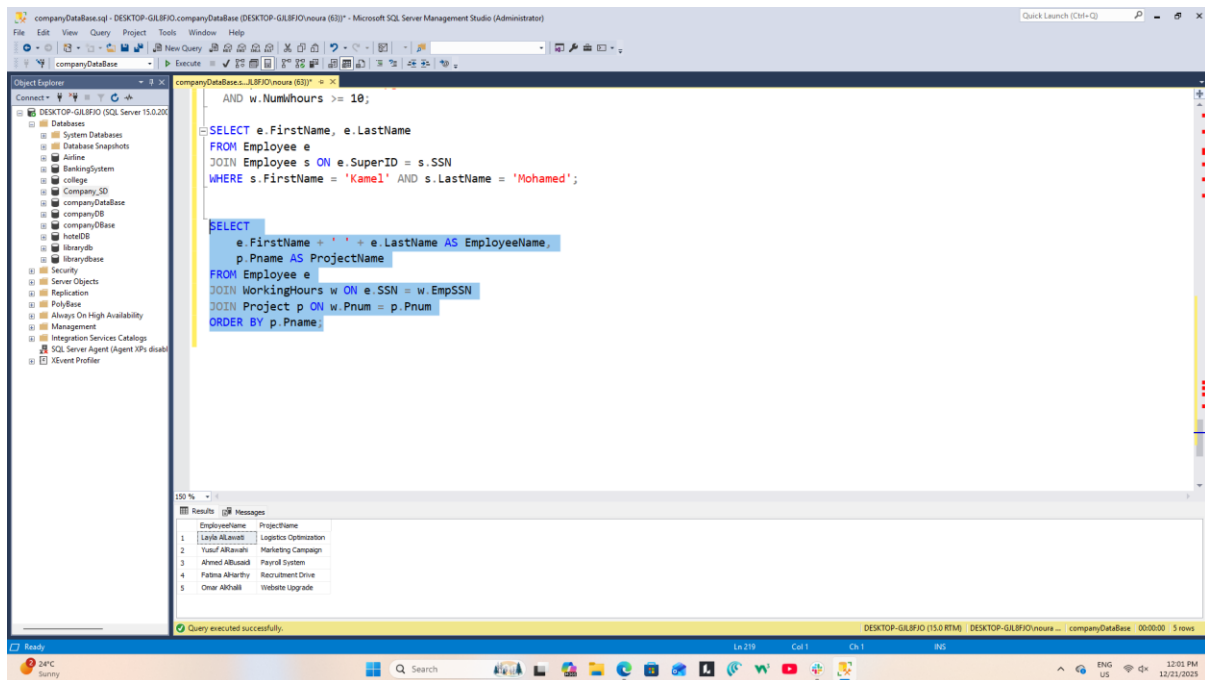


6. Display the IDs and names of employees in department 30 with a salary between 1000 and 2000 LE.

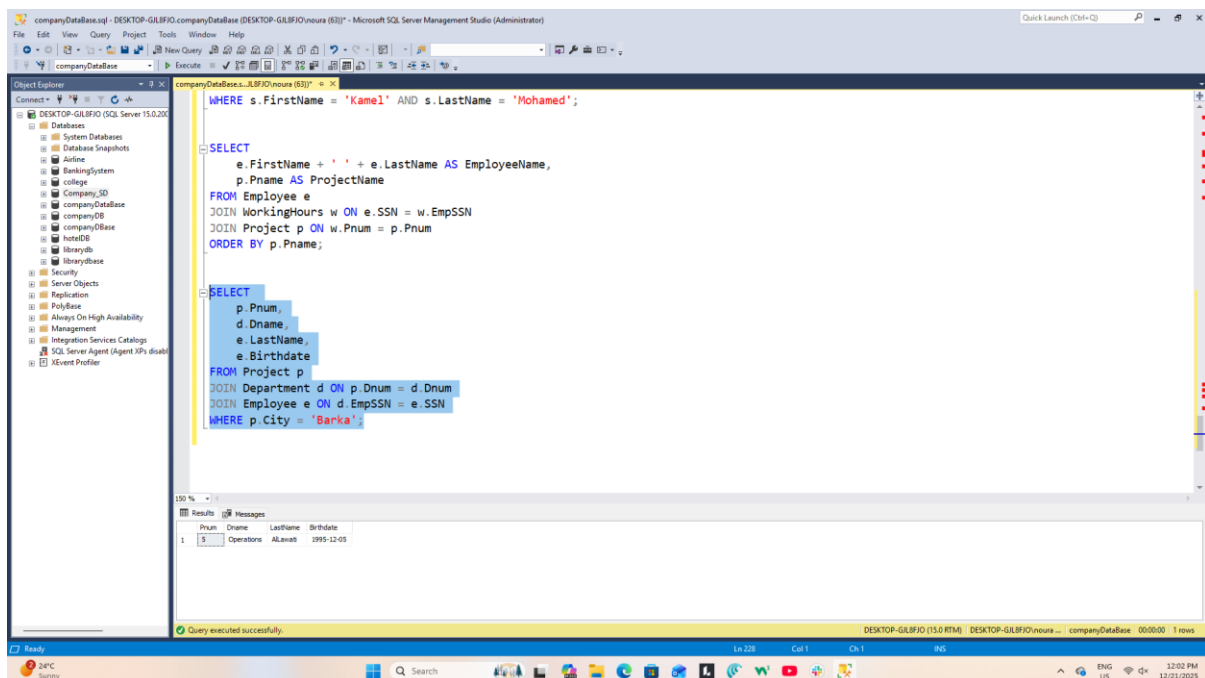


7. Retrieve the names of employees in department 10 who work ≥ 10 hours/week on the " Website Upgrade " project.





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



11. Display all data of managers in the company.

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the 'Object Explorer' with the 'companyDatabase' selected. The right pane shows a query window with the following SQL code:

```

e.LastName,
e.Birthdate
FROM Project p
JOIN Department d ON p.Dnum = d.Dnum
JOIN Employee e ON d.EmpSSN = e.SSN
WHERE p.City = 'Barka';

SELECT DISTINCT e.*
FROM Employee e
JOIN Department d
ON e.SSN = d.EmpSSN;

```

The 'Results' pane at the bottom displays the output of the query, showing 5 rows of employee data:

SSN	FirstName	LastName	Birthdate	Gender	SuperID	Dnum	Salary
1	Ahmed	ABUsaid	1995-04-12	1	NULL	30	1500.00
2	Omar	ABUvalli	1990-09-23	0	NULL	30	1800.00
3	Fatma	Alharthy	1978-01-30	1	NULL	30	2500.00
4	Yusuf	AlLawaifi	1988-06-18	0	NULL	NULL	NULL
5	Layla	AlLawaifi	1995-12-05	1	NULL	NULL	NULL

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

The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the 'Object Explorer' with the 'companyDatabase' selected. The right pane shows a query window with the following SQL code:

```

SELECT DISTINCT e.*
FROM Employee e
JOIN Department d
ON e.SSN = d.EmpSSN;

SELECT
e.FirstName + ' ' + e.LastName AS EmployeeName,
dep.DependentName,
dep.DependentGender,
dep.DBirthdate
FROM Employee e
LEFT JOIN EMPDependent dep
ON e.SSN = dep.EmpSSN;

```

The 'Results' pane at the bottom displays the output of the query, showing 10 rows of employee and dependent data:

EmployeeName	DependentName	DependentGender	DBirthdate
1 Ahmed ABUsaid	Sara	1	2010-05-12
2 Omar ABUvalli	Omar	0	2012-09-23
3 Fatma Alharthy	Huda	1	2015-11-15
4 Yusuf AlLawaifi	Khalid	0	2017-04-08
5 Layla AlLawaifi	Aisha	1	2018-12-19
6 Ahmed ABUsaid	NULL	NULL	NULL
7 Omar ABUvalli	NULL	NULL	NULL
8 Fatma Alharthy	NULL	NULL	NULL
9 Yusuf AlLawaifi	NULL	NULL	NULL
10 Layla AlLawaifi	NULL	NULL	NULL