

University Database – JOIN Queries

1. Display the department ID, name, and the full name of the faculty managing it.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the 'college' database. The central pane displays a T-SQL query:

```
SELECT
    d.DID,
    d.Depname,
    f.FFname AS FacultyName
FROM department d
JOIN faculty f
ON d.DID = f.DepID;
```

The results pane shows the output of the query:

ID	Depname	FacultyName
1	Computer Science	Dr. Ali Mohamed
2	Information Technology	Dr. Ahmed
3	Engineering	Eng. Hassen Sabah
4	Business Administration	Dr. Hora Khaifen
5	Mathematics	Dr. Haster Said

At the bottom, a status bar indicates "Query executed successfully." and the system tray shows the date and time as 12/21/2025.

2. Display each program's name and the name of the department offering it.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure, including the 'college' database. The central pane displays a T-SQL query:

```
SELECT
    d.DID,
    d.Depname,
    f.FFname AS FacultyName
FROM department d
JOIN faculty f
ON d.DID = f.DepID;

SELECT
    c.coursename,
    d.Depname
FROM course c
JOIN department d
ON c.DepID = d.DID;
```

The results pane shows the output of the query:

coursename	Depname
Database Systems	Computer Science
Networking Basics	Information Technology
Electrical Circuits	Engineering
Principles of Management	Business Administration
Linear Algebra	Mathematics

At the bottom, a status bar indicates "Query executed successfully." and the system tray shows the date and time as 12/21/2025.

3. Display the full student data and the full name of their faculty advisor.

```

college.sql - DESKTOP-GILBFI0\inoura (55)* - Microsoft SQL Server Management Studio (Administrator)

Object Explorer
File Edit View Query Project Tools Window Help
New Query Execute Find Replace Go To Object Properties Task List
[+] college
[+] Company_SD
[+] Database Diagrams
[+] Tables
[+] System Tables
[+] InnoDB Tables
[+] External Tables
[+] Graph Tables
[+] InnoDB Departments
[+] InnoDB Dependencies
[+] InnoDB Events
[+] InnoDB Project
[+] InnoDB Works_for
[+] Views
[+] External Resources
[+] Synonyms
[+] Programmability
[+] Service Broker
[+] Storage
[+] Security
[+] companyDBase
[+] companyOB
[+] hotelDB
[+] libraryDB
[+] libraryDBase
[+] Security
[+] Server Objects
[+] Replication
[+] PolyBase
[+] Always On High Availability
[+] Management
[+] Integration Services Catalogs
[+] SQL Server Agent (Agent XPs disabled)
[+] XEvent Profiler

college.sql (55)* - Microsoft SQL Server Management Studio (Administrator)

SELECT
    c.coursename,
    d.Dpname
FROM course c
JOIN department d
    ON c.DepID = d.DID;

SELECT s.*,
    s.Advisor AS AdvisorName
FROM student s;

```

StuID	SName	Fname	phone	DOB	DepID	HD	EnrollmentDate	Status	GPA	Advisor	AdvisorName
1	1000	Ahmed	Al Hessa	91234567	2002-05-12	1	100	Active	3.40	Dr. Ali	Dr. Ali
2	1001	Fatma	Al Sed	92345678	2001-08-20	2	101	Active	3.80	Dr. Sera	Dr. Sera
3	1002	Salm	Al Rayan	93456789	2002-01-15	3	102	Active	2.90	NULL	NULL
4	1003	Amira	Al Radi	94567890	2002-12-05	4	103	Active	3.00	Dr. Mona	Dr. Mona
5	1004	Khalid	Al Harby	95678901	2001-03-25	5	104	Active	3.70	NULL	NULL
6	1005	Noura	Almosakri	99999999	2002-01-01	2	101	Active	3.80	Dr. Sera	Dr. Sera
7	1006	Anam	Sed	88888888	2002-03-03	1	100	Active	NULL	NULL	NULL

Query executed successfully.

4. Display class IDs, course titles, and room locations for classes in buildings 'A' or 'B'.

This query cannot be implemented because the database does not contain class or building information.

5. Display full data about courses whose titles start with "N".

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\inouva (55)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

New Query New Item New Query New Item

Execute

college

Object Explorer

college

FROM course c
JOIN department d
ON c.DepID = d.DID;

SELECT s.*,
s.Advisor AS AdvisorName
FROM student s;

SELECT *
FROM course
WHERE coursename LIKE 'NW%'

Results Messages

	courseID	coursename	cDuration	DepID
1	2	Networking Basics	50	2

Query executed successfully.

LN 373 Col 1 Ch 1 INS

DESKTOP-GILBFI0 (15.0 RTM) DESKTOP-GILBFI0\inouva ... college 00:00:00 1 rows

Ready

35°C Sunny

ENG US

12/21/2025

6. Display names of students in program ID 3 whose GPA is between 2.5 and 3.5.

The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The title bar indicates the connection is to 'college' database on 'DESKTOP-GILBFQJ\neuraa' (SQL Server 15.0.2000). The menu bar includes File, Edit, View, Query, Project, Tools, Window, Help.

The Object Explorer sidebar lists several databases, including 'company', 'companyDB', 'companyBase', 'master', 'model', 'msdb', 'tempdb', 'librarydb', and 'Security'. The 'Security' node is expanded, showing 'Logins', 'Server Objects', 'Replication', and 'PolyBase'.

The left pane shows the 'Query' window with two queries:

```
college.sql - DESKTOP-GILBFQJ\neuraa (55) - Microsoft SQL Server Management Studio (Administrator)

SELECT *
FROM course
WHERE coursename LIKE 'Ne%';

SELECT
    s.Fname + ' ' + s.Lname AS FullName,
    s.GPA
FROM student s
JOIN enrollment e
ON s.StuID = e.StuID
WHERE e.courseID = 3
AND s.GPA BETWEEN 2.5 AND 3.5;
```

The right pane shows the 'results' tab with the output of the second query:

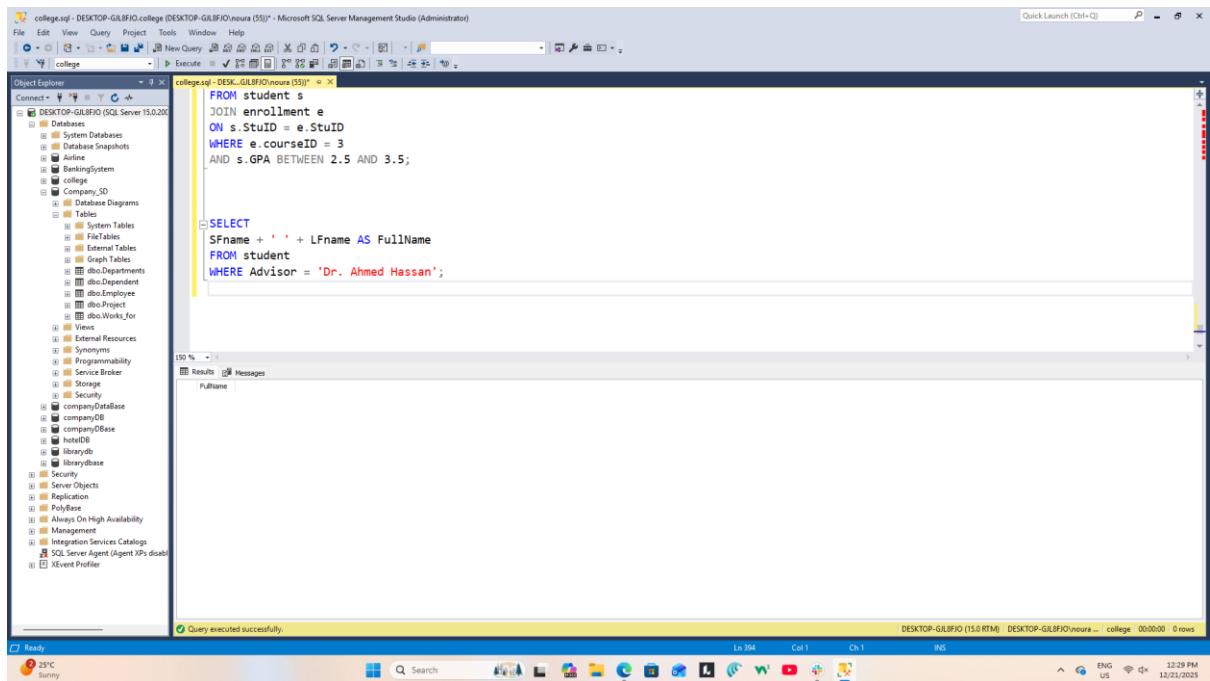
FullName	GPA
Salem Al Rayyan	2.90

At the bottom, a status bar shows 'Ready', 'LN 387', 'Col 1', 'Ch 1', 'INS', 'DESKTOP-GILBFQJ\neuraa (15.0 RTM)', '12/21/2025', and '1 row(s) affected'. A system tray icon for '35C' is visible.

7. Retrieve student names in the Engineering program who earned grades ≥ 90 in the "Database" course.

This query cannot be executed because grades are not stored in the database

8. Find names of students who are advised by "Dr. Ahmed Hassan".



The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows a database named 'college'. The central pane displays a T-SQL query:

```
college.sql - DESKTOP-GILBFIO\inoura [55] * - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
Execute ✓
SELECT
    Sfname + ' ' + Lfname AS FullName
FROM student
WHERE Advisor = 'Dr. Ahmed Hassan';

FROM student
JOIN enrollment e
ON s.StuID = e.StuID
WHERE e.courseID = 3
AND s.GPA BETWEEN 2.5 AND 3.5;
```

The status bar at the bottom indicates 'Query executed successfully.' and shows system information like 'DESKTOP-GILBFIO (15.0 RTM) | DESKTOP-GILBFIO\inoura ... | college | 0000:00 | 0 rows'.

9. Retrieve each student's name and the titles of courses they are enrolled in, ordered by course title.

The screenshot shows the Microsoft SQL Server Management Studio (Administrator) interface. The title bar indicates the connection is to 'college' database on 'DESKTOP-GILBFIO.college' (SQL Server 15.0). The main window displays a T-SQL query:

```
SELECT
    s.SFirstName + ' ' + s.LLastName AS StudentName,
    c.courseName
FROM student s
JOIN enrollment e
ON s.StuID = e.StuID
JOIN course c
ON e.courseID = c.courseID
ORDER BY c.courseName;
```

The results pane shows the following data:

StudentName	courseName
Ahmed Al-Hassan	Database Systems
Saleh Al-Riyami	Electrical Circuits
Khalid Al-Harthy	Linear Algebra
Fatma Al-Sadi	Networking Basics
Aisha Al-Balushi	Principles of Management

The status bar at the bottom right shows '12/21/2025 12:30 PM'. The taskbar at the bottom includes icons for File Explorer, Task View, Start, Search, Edge, File Explorer, Mail, Calendar, Photos, OneDrive, Task View, and YouTube.

10. For each class in Building 'Main', retrieve class ID, course name, department name, and faculty name teaching the class.

Required tables (class/building) are not available in the database.

11. Display all faculty members who manage any department.

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\inouara (55)) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT DISTINCT
    f.FFID,
    f.FFname,
    d.Depname
FROM faculty f
JOIN department d
ON f.DepID = d.DID;

```

Results

FFID	FFname	Depname
1	Dr. Ali Mohammed	Computer Science
2	Dr. Sare Ahmed	Information Technology
3	Eng. Hassan Saleh	Engineering
4	Dr. Mona Khaifan	Business Administration
5	Dr. Nasser Saad	Mathematics

Query executed successfully.

12. Display all students and their advisors' names, even if some students don't have advisors yet.

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\inouara (55)) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT DISTINCT
    f.FFID,
    f.FFname,
    d.Depname
FROM faculty f
JOIN department d
ON f.DepID = d.DID;

SELECT
    Sfname + ' ' + Lfname AS StudentName,
    Advisor
FROM student;

```

Results

StudentName	Advisor
Ahmed Al Hassan	Dr. Ali
Fatima Al Saad	Dr. Sare
Ali Al Hashmi	NULL
Aisha Al Beshri	Dr. Mona
Khalid Al Thethy	NULL
Noura Almeskani	Dr. Sare
Ameri Saad	NULL

Query executed successfully.