```sql
-- =========================================
-- Join
-- =========================================

SELECT D.DepID, D.DepName, F.Facname AS FacultyName
FROM Department1 D, Faculty F
    where F.Fdepartment = D.DepName;
```

	DepID	DepName	FacultyName
1	1	Computer Science	Ali Hassan
2	2	Mathematics	Sara Ahmed
3	3	Physics	Omar Khalid
4	4	Chemistry	Laila Said
5	5	Biology	Nour Jamal

Query executed successfully.

```sql
-- 14. Insert your self
INSERT INTO Student (StudID, Fname, Lname, EnrollmentDate, Status, GPA, Advisor)
VALUES (300045,'Fathiya','Alfahdi','2025-01-01','Active',3.6,'Dr. Advisor');

-- 15. Insert friend with GPA and Advisor NULL
INSERT INTO Student (StudID, Fname, Lname, EnrollmentDate, Status, GPA, Advisor)
VALUES (300046,'Noura','AlMaskari','2025-01-01','Active',NULL,NULL);

-- 16. Increase your GPA by 0.2
UPDATE Student SET GPA = GPA + 0.2 WHERE StudID = 300045;

-- 17. Set GPA to 2.0 for students below 2.0
UPDATE Student SET GPA = 2.0 WHERE GPA < 2.0;

-- 18. Increase GPA by 0.1 for students enrolled before 2020
UPDATE Student SET GPA = GPA + 0.1 WHERE EnrollmentDate < '2020-01-01';

-- =========================================
-- Join
-- =========================================

SELECT D.DepID, D.DepName, F.Facname AS FacultyName
FROM Department1 D, Faculty F
    where F.Fdepartment = D.DepName;

SELECT C.CourseName, D.DepName
FROM Course C, Department1 D
where C.DepID = D.DepID;
```

	CourseName	DepName
1	Computer Science	Computer Science
2	Mathematics	Mathematics
3	Physics	Physics
4	Chemistry	Chemistry
5	Biology	Biology

Query executed successfully.

Screenshot 1

```sql
-- 15. Insert friend with GPA and Advisor NULL
INSERT INTO Student (StudID, fname, Lname, EnrollmentDate, Status, GPA, Advisor)
VALUES (300046,'Noura','AlMaskari','2025-01-01','Active',NULL,NULL);

-- 16. Increase your GPA by 0.2
UPDATE Student SET GPA = GPA + 0.2 WHERE StudID = 300045;

-- 17. Set GPA to 2.0 for students below 2.0
UPDATE Student SET GPA = 2.0 WHERE GPA < 2.0;

-- 18. Increase GPA by 0.1 for students enrolled before 2020
UPDATE Student SET GPA = GPA + 0.1 WHERE EnrollmentDate < '2020-01-01';

-- ============================================
-- Join
-- ============================================

SELECT D.DepID, D.DepName, F.Facname AS FacultyName
FROM Department1 D, Faculty F
    where F.Fdepartment = D.DepName;

SELECT C.CourseName, D.DepName
FROM Course C, Department1 D
where C.DepID = D.DepID;

SELECT S.*, F.Facname AS AdvisorName
FROM Student S
LEFT JOIN studfaculty SF ON S.StudID = SF.StudID
LEFT JOIN Faculty F ON SF.FID = F.FID;
```

	StudID	Fname	Lname	DOB	HostelID	EnrollmentDate	Status	Advisor	GPA	AdvisorName
1	1	Aisha	AlHarthy	2002-05-14	2	2021-08-15	Active	Dr. Ali	3.40	Ali Hassan
2	2	Salim	AlSaid	2001-11-22	4	2020-09-01	Active	Dr. Sara	3.60	Sara Ahmed
3	3	Fatima	AlBalushi	2003-02-09	3	2022-01-10	Active	Dr. Omar	3.20	Omar Khalid
4	4	Khalid	AlRashdi	2000-08-30	5	2019-07-20	Inactive	Dr. Laila	2.90	Laila Said
5	5	Noor	AlAmri	2002-12-17	1	2021-05-12	Active	Dr. Nour	3.00	Nour Jamal
6	300045	Fathya	Alfahdi	NULL	NULL	2025-01-01	Active	Dr. Advisor	3.80	NULL
7	300046	Noura	AlMaskari	NULL	NULL	2025-01-01	Active	NULL	NULL	NULL

Query executed successfully.

Screenshot 2

```sql
UPDATE Student SET GPA = GPA + 0.2 WHERE StudID = 300045;

-- 17. Set GPA to 2.0 for students below 2.0
UPDATE Student SET GPA = 2.0 WHERE GPA < 2.0;

-- 18. Increase GPA by 0.1 for students enrolled before 2020
UPDATE Student SET GPA = GPA + 0.1 WHERE EnrollmentDate < '2020-01-01';

-- ============================================
-- Join
-- ============================================

SELECT D.DepID, D.DepName, F.Facname AS FacultyName
FROM Department1 D, Faculty F
    where F.Fdepartment = D.DepName;

SELECT C.CourseName, D.DepName
FROM Course C, Department1 D
where C.DepID = D.DepID;

SELECT S.*, F.Facname AS AdvisorName
FROM Student S
LEFT JOIN studfaculty SF ON S.StudID = SF.StudID
LEFT JOIN Faculty F ON SF.FID = F.FID;

SELECT E.ExamCode AS ClassID, C.CourseName, E.ExamRoom
FROM Exam E
JOIN studCourse SC ON SC.StudID = SC.StudID
JOIN Course C ON SC.CourseID = C.CourseID
WHERE E.ExamRoom LIKE '%A%' OR E.ExamRoom LIKE '%B%';
```

	ClassID	CourseName	ExamRoom
1	1	Computer Science	RoomA
2	2	Computer Science	RoomB
3	1	Mathematics	RoomA
4	2	Mathematics	RoomB
5	1	Physics	RoomA
6	2	Physics	RoomB
7	1	Chemistry	RoomA
8	2	Chemistry	RoomB
9	1	Biology	RoomA
10	2	Biology	RoomB

Query executed successfully.

```sql
-- 10. Increase GPA by 0.1 for students enrolled before 2020
UPDATE Student SET GPA = GPA + 0.1 WHERE EnrollmentDate < '2020-01-01';

-- ===========================================
-- Join
-- ===========================================

SELECT D.DepID, D.DepName, F.Facname AS FacultyName
  FROM Department1 D, Faculty F
     where F.Fdepartment = D.DepName;

SELECT C.CourseName, D.DepName
  FROM Course C, Department1 D
  where C.DepID = D.DepID;

SELECT S.*, F.Facname AS AdvisorName
  FROM Student S
  LEFT JOIN studfaculty SF ON S.StudID = SF.StudID
  LEFT JOIN Faculty F ON SF.FID = F.FID;

SELECT E.ExamCode AS ClassID, C.CourseName, E.ExamRoom
  FROM Exam E
  JOIN studCourse SC ON SC.StudID = SC.StudID
  JOIN Course C ON SC.CourseID = C.CourseID
  WHERE E.ExamRoom LIKE '%A%' OR E.ExamRoom LIKE '%B%';

SELECT *
  FROM Course
  WHERE CourseName LIKE 'M%';
```

Results

	CourseID	CourseName	Duration	DepID
1	2	Mathematics	3	2

Query executed successfully.

```sql
SELECT D.DepID, D.DepName, F.Facname AS FacultyName
  FROM Department1 D, Faculty F
     where F.Fdepartment = D.DepName;

SELECT C.CourseName, D.DepName
  FROM Course C, Department1 D
  where C.DepID = D.DepID;

SELECT S.*, F.Facname AS AdvisorName
  FROM Student S
  LEFT JOIN studfaculty SF ON S.StudID = SF.StudID
  LEFT JOIN Faculty F ON SF.FID = F.FID;

SELECT E.ExamCode AS ClassID, C.CourseName, E.ExamRoom
  FROM Exam E
  JOIN studCourse SC ON SC.StudID = SC.StudID
  JOIN Course C ON SC.CourseID = C.CourseID
  WHERE E.ExamRoom LIKE '%A%' OR E.ExamRoom LIKE '%B%';

SELECT *
  FROM Course
  WHERE CourseName LIKE 'M%';

SELECT S.Fname, S.Lname
  FROM Student S
  JOIN studCourse SC ON S.StudID = SC.StudID
  WHERE SC.CourseID = 3
    AND S.GPA BETWEEN 2.5 AND 3.5;
```
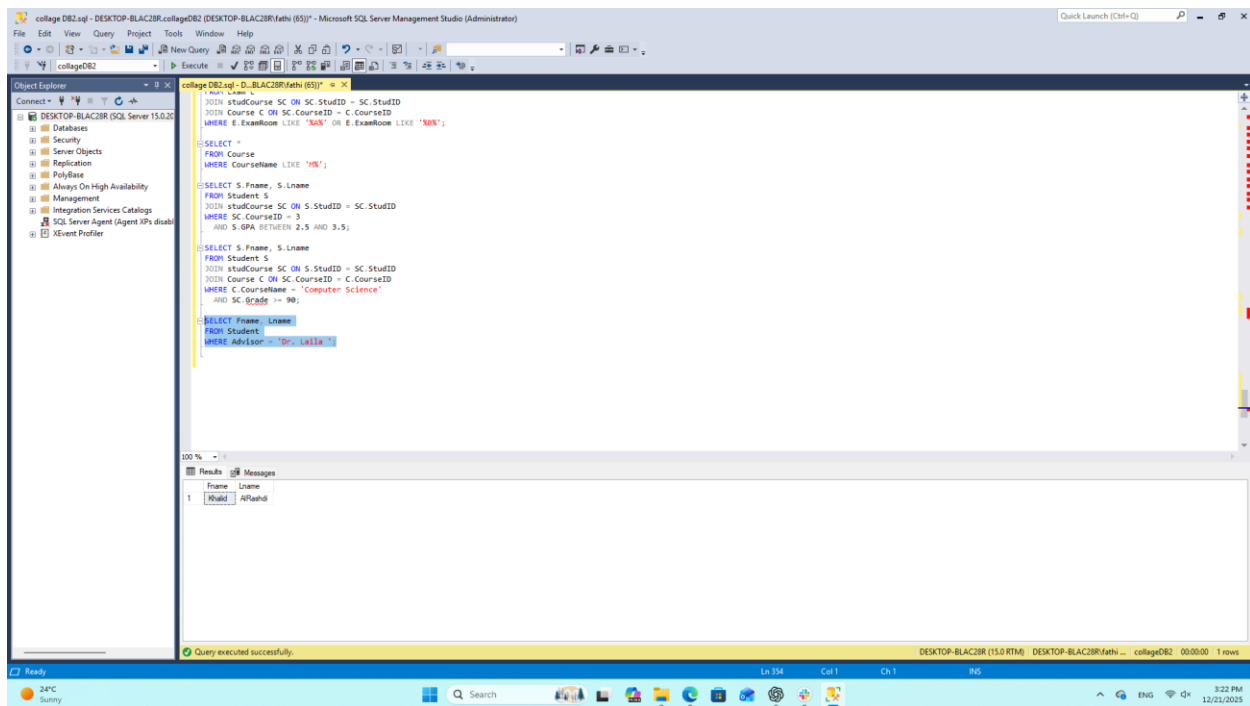
Results

	Fname	Lname
1	Fatima	AlBalushi

Query executed successfully.

```sql
    where C.DepID = D.DepID;

SELECT S.*, F.Facname AS AdvisorName
  FROM Student S
  LEFT JOIN studfaculty SF ON S.StudID = SF.StudID
  LEFT JOIN Faculty F ON SF.FID = F.FID;

SELECT E.ExamCode AS ClassID, C.CourseName, E.ExamRoom
  FROM Exam E
  JOIN studCourse SC ON SC.StudID = SC.StudID
  JOIN Course C ON SC.CourseID = C.CourseID
  WHERE E.ExamRoom LIKE '%A%' OR E.ExamRoom LIKE '%B%';

SELECT *
  FROM Course
  WHERE CourseName LIKE 'M%';

SELECT S.Fname, S.Lname
  FROM Student S
  JOIN studCourse SC ON S.StudID = SC.StudID
  WHERE SC.CourseID = 3
    AND S.GPA BETWEEN 2.5 AND 3.5;

SELECT S.Fname, S.Lname
  FROM Student S
  JOIN studCourse SC ON S.StudID = SC.StudID
  JOIN Course C ON SC.CourseID = C.CourseID
  WHERE C.CourseName = 'Computer Science'
    AND SC.Grade >= 90
```

Results

	Fname	Lname
1	Aisha	AlHathy

Query executed successfully.

```sql
  JOIN studCourse SC ON SC.StudID = SC.StudID
  JOIN Course C ON SC.CourseID = C.CourseID
  WHERE E.ExamRoom LIKE '%A%' OR E.ExamRoom LIKE '%B%';

SELECT *
  FROM Course
  WHERE CourseName LIKE 'M%';

SELECT S.Fname, S.Lname
  FROM Student S
  JOIN studCourse SC ON S.StudID = SC.StudID
  WHERE SC.CourseID = 3
    AND S.GPA BETWEEN 2.5 AND 3.5;

SELECT S.Fname, S.Lname
  FROM Student S
  JOIN studCourse SC ON S.StudID = SC.StudID
  JOIN Course C ON SC.CourseID = C.CourseID
  WHERE C.CourseName = 'Computer Science'
    AND SC.Grade >= 90;

SELECT Fname, Lname
  FROM Student
  WHERE Advisor = 'Dr. Laila ';
```

Results

	Fname	Lname
1	Khalid	AlRashdi

Query executed successfully.

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

I have another data in this question

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```
    FROM Student S
    JOIN studCourse SC ON S.StudID = SC.StudID
    JOIN Course C ON SC.CourseID = C.CourseID
    WHERE C.CourseName = 'Computer Science'
      AND SC.Grade >= 90;

SELECT Fname, Lname
    FROM Student
    WHERE Advisor = 'Dr. Laila ';

SELECT S.Fname, S.Lname, C.CourseName
    FROM Student S
    JOIN studCourse SC ON S.StudID = SC.StudID
    JOIN Course C ON SC.CourseID = C.CourseID
    ORDER BY C.CourseName;

SELECT DISTINCT F.Facname
    FROM Faculty F
    JOIN Department1 D ON F.Fdepartment = D.DepName;

SELECT S.*, F.Facname AS AdvisorName
    FROM Student S
    LEFT JOIN studfaculty SF ON S.StudID = SF.StudID
    LEFT JOIN Faculty F ON SF.FID = F.FID.
```

	StudID	Fname	Lname	DOB	HostelID	EnrollmentDate	Status	Advisor	GPA	AdvisorName
1	1	Aisha	AlHarthy	2002-05-14	2	2021-08-15	Active	Dr. Ali	3.40	Ali Hassan
2	2	Salim	AlSaid	2001-11-22	4	2020-09-01	Active	Dr. Sara	3.60	Sara Ahmed
3	3	Fatima	AlBalushi	2003-02-09	3	2022-01-10	Active	Dr. Omar	3.20	Omar Khalid
4	4	Khalid	AlRashdi	2000-08-30	5	2019-07-20	Inactive	Dr. Laila	2.90	Laila Said
5	5	Noor	AlAmri	2002-12-17	1	2021-05-12	Active	Dr. Nour	3.00	Nour Jamal
6	300045	Fathiya	Alfahdi	NULL	NULL	2025-01-01	Active	Dr. Advisor	3.80	NULL
7	300046	Noura	AlMaskari	NULL	NULL	2025-01-01	Active	NULL	NULL	NULL

Query executed successfully.