

**Noura ALmaskari**  
**University Database - DQL & DML Tasks**

إضافة العمدة الناقصة في جدول الطلاب--

```
ALTER TABLE student ADD EnrollmentDate DATE, Status VARCHAR(20), GPA  
DECIMAL(3,2), Advisor VARCHAR(100);
```

```
UPDATE student SET EnrollmentDate = '2021-09-01', Status = 'Active',  
GPA = 3.4, Advisor = 'Dr. Ali' WHERE StuID = 1000;
```

```
UPDATE student SET EnrollmentDate = '2022-09-01', Status = 'Active',  
GPA = 3.8, Advisor = 'Dr. Sara' WHERE StuID = 1001;
```

```
UPDATE student SET EnrollmentDate = '2020-09-01', Status = 'Active',  
GPA = 2.9, Advisor = NULL WHERE StuID = 1002;
```

```
UPDATE student SET EnrollmentDate = '2021-02-01', Status =  
'Inactive', GPA = 3.1, Advisor = 'Dr. Mona' WHERE StuID = 1003;
```

```
UPDATE student SET EnrollmentDate = '2019-09-01', Status = 'Active',  
GPA = 3.6, Advisor = NULL WHERE StuID = 1004;
```

**DQL**

## 1. Display all student records.

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'college' database on 'DESKTOP-GILBFOJ\neousa' (66|) - Microsoft SQL Server Management Studio (Administrator). The left sidebar shows the Object Explorer with the 'college' database selected. The main pane displays a T-SQL script and its results.

```
college.sql - DESKTOP-GILBFOJ\neousa (66|) - SQLQuery1.sql - DE_JULBFOJ\neousa (81)|
```

```
Advison = 'Dr. Mona'
WHERE StudID = 1003;

UPDATE student SET
EnrollmentDate = '2019-09-01',
Status = 'Active',
GPA = 3.6,
Advisor = NULL
WHERE StudID = 1004;

SELECT * FROM student;
```

	StudID	FName	LName	PhoneNumber	DOB	DeptID	HOD	EnrollmentDate	Status	GPA	Adviser
1	1000	Ahmed	Al Hassan	91234567	2002-05-12	1	100	2022-09-01	Active	3.40	Dr. Ali
2	1001	Fatme	Al Saeed	92345678	2001-09-20	2	101	2022-09-01	Active	3.80	Dr. Sera
3	1002	Salm	Al Riyami	93456789	2003-01-15	3	102	2020-09-01	Active	2.90	NULL
4	1003	Aisha	Al Balushi	94567890	2002-11-30	4	103	2022-02-01	Inactive	3.10	Dr. Maria
5	1004	Khalid	Al Harthy	95678901	2001-03-25	5	104	2019-09-01	Active	3.60	NULL

Query executed successfully.

2. Display each student's full name, enrollment date, and current status.

3. Display each course title and credits.

```

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\ouara (66)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Connect [ ] Object Explorer [ ] college [ ] Quick Launch (Ctrl+Q) [ ]
Object Explorer [ ] college [ ] college [ ] SQLQuery1.sql - DESKTOP-GILBFI0\ouara (81)
File Edit View Query Project Tools Window Help
[...] New Query [ ] Execute [ ] Results [ ] Messages [ ]
[...]
SELECT * FROM student;
[...]
SELECT
    Sfname + ' ' + Lfname AS FullName,
    EnrollmentDate,
    Status
FROM student;

[...]
SELECT
    coursename,
    cduration AS Credits
FROM course;
[...]
Results [ ] Messages [ ]
coursename Credits
1 Database Systems 60
2 Networking Basics 50
3 Electrical Circuits 70
4 Principles of Management 45
5 Linear Algebra 55
[...]

```

Query executed successfully.

#### 4. Display each student's full name and GPA Score.

```

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\ouara (66)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Connect [ ] Object Explorer [ ] college [ ] Quick Launch (Ctrl+Q) [ ]
Object Explorer [ ] college [ ] college [ ] SQLQuery1.sql - DESKTOP-GILBFI0\ouara (81)
File Edit View Query Project Tools Window Help
[...] New Query [ ] Execute [ ] Results [ ] Messages [ ]
[...]
coursename,
cduration AS Credits
FROM course;

[...]
SELECT
    Sfname + ' ' + Lfname AS FullName,
    GPA AS [GPA Score]
FROM student;
[...]
Results [ ] Messages [ ]
FullName GPA Score
1 Ahmed Al Hassan 3.40
2 Fatima Al Said 3.80
3 Salim Al Riyami 2.90
4 Aisha Al Baluchi 3.10
5 Khalid Al Harthy 3.60
[...]

```

Query executed successfully.

#### 5. List student IDs and names of students with GPA greater than 3.5.

```

college.sql - DESKTOP-GILBFI0\inours (66) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] New Query [...]
[...] Execute [...]
[...] Object Explorer [...]
[...] college [...]
Object Explorer
File Databases
File Snapshots
File Scripts
File Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbDepartments
dbEmployee
dboEmployee
[...]
Columns
[...]
Keys
[...]
Constraints
Triggers
Indexes
Statistics
[...]
dboProject
dboWorksFor
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDatabase
impanyDB
impanyBase
[...]
Objects
Edition
use
[...]
Ready
26°C Mostly sunny
[...]
Query executed successfully.

```

Syntax:

```

SELECT StuID, Sfname + ' ' + Lfname AS FullName,
GPA AS [GPA Score]
FROM student;

SELECT *
StuID, Sfname + ' ' + Lfname AS FullName
FROM student
WHERE GPA > 3.5;

```

Results:

StuID	FullName
1001	Patma Al Said
1004	Khalid Al Harthy

Message:

```

DESKTOP-GILBFI0 (15.0 RTM) | DESKTOP-GILBFI0\inours ... college 00:00:00 2 rows
Lc 267 Col 1 Ch 1 INS
ENG US 11:16 AM 12/15/2023

```

## 6. List students who enrolled before 2022.

```

college.sql - DESKTOP-GILBFI0\inours (66) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] New Query [...]
[...] Execute [...]
[...] Object Explorer [...]
[...] college [...]
Object Explorer
File Databases
File Snapshots
File Scripts
File Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbDepartments
dbEmployee
dboEmployee
[...]
Columns
[...]
Keys
[...]
Constraints
Triggers
Indexes
Statistics
[...]
dboProject
dboWorksFor
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDatabase
impanyDB
impanyBase
[...]
Objects
Edition
use
[...]
Ready
26°C Mostly sunny
[...]
Query executed successfully.

```

Syntax:

```

SELECT StuID, Sfname + ' ' + Lfname AS FullName
FROM student
WHERE GPA > 3.5;

SELECT *
FROM student
WHERE EnrollmentDate < '2022-01-01';

```

Results:

StuID	Sfname	Lname	phone	DOB	DepID	HD	EnrollmentDate	Status	GPA	Advisor
1000	Ahmed	Al Hassan	9124567	2002-05-12	1	100	2021-09-01	Active	3.40	Dr. Ali
1002	Salm	Al Rayyan	9345678	2003-01-15	3	102	2020-09-01	Active	2.90	NULL
1003	Auda	Al Bakut	9467890	2002-11-06	4	103	2021-02-01	Inactive	3.30	Dr. Hana
1004	Khalid	Al Harthy	95678901	2001-03-25	5	104	2019-09-01	Active	3.60	NULL

Message:

```

DESKTOP-GILBFI0 (15.0 RTM) | DESKTOP-GILBFI0\inours ... college 00:00:00 4 rows
Lc 270 Col 37 Ch 37 INS
ENG US 11:17 AM 12/15/2023

```

## 7. Display students with GPA between 3.0 and 3.5.

```

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\housa (66)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] New Query [...]
Object Explorer
College
Item Databases
FileTables
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo-Departments
dbo-Dependent
dbo-Employee
Columns
Keys
Constraints
Triggers
Indexes
Statistics
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDatabase
impanyDB
impanyBase
Objects
option
[...]
Results Messages
StUD SName UName phoneN DOB DepID HD EnrollmentDate Status GPA Advisor
1 1000 Ahmed AlHassan 91234567 2002-05-12 1 100 2021-09-01 Active 3.40 Dr. Ali
2 1003 Asheh AlBalushi 94567890 2002-11-30 4 103 2021-02-01 Inactive 3.10 Dr. Mona

```

Query executed successfully.

## 8. Display students ordered by GPA descending.

```

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\housa (66)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] New Query [...]
Object Explorer
College
Item Databases
FileTables
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo-Departments
dbo-Dependent
dbo-Employee
Columns
Keys
Constraints
Triggers
Indexes
Statistics
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDatabase
impanyDB
impanyBase
Objects
option
[...]
Results Messages
StUD SName UName phoneN DOB DepID HD EnrollmentDate Status GPA Advisor
1 1001 Palma AlSed 92345678 2001-08-20 2 101 2022-09-01 Active 3.80 Dr. Sae
2 1004 Khalid AlHarthy 95678901 2001-03-25 5 104 2022-09-01 Active 3.60 NULL
3 1000 Ahmed AlHassan 91234567 2002-05-12 1 100 2021-09-01 Active 3.40 Dr. Ali
4 1003 Asheh AlBalushi 94567890 2002-11-30 4 103 2021-02-01 Inactive 3.10 Dr. Mona
5 1002 Salm AlRiyami 93456789 2003-01-15 3 102 2020-09-01 Active 2.90 NULL

```

Query executed successfully.

## 9. Display the maximum, minimum, and average GPA.

college.sql - DESKTOP-GILBFI0\inours (66) - Microsoft SQL Server Management Studio (Administrator)

```

FROM student
ORDER BY GPA DESC;

SELECT
    MAX(GPA) AS MaxGPA,
    MIN(GPA) AS MinGPA,
    AVG(GPA) AS AvgGPA
FROM student;

```

Results

	MaxGPA	MinGPA	AvgGPA
1	3.80	2.90	3.360000

Query executed successfully.

## 10. Display total number of students.

college.sql - DESKTOP-GILBFI0\inours (66) - Microsoft SQL Server Management Studio (Administrator)

```

SELECT
    MAX(GPA) AS MaxGPA,
    MIN(GPA) AS MinGPA,
    AVG(GPA) AS AvgGPA
FROM student;

SELECT COUNT(*) AS TotalStudents
FROM student;

```

Results

TotalStudents
5

Query executed successfully.

## 11. Display students whose names end with 'a'.

```

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\inoua (66)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] New Query [...]
college [college] Execute [...]
MIN(GPA) AS MinGPA,
AVG(GPA) AS AvgGPA
FROM student;

SELECT COUNT(*) AS TotalStudents
FROM student;

SELECT *
FROM student
WHERE Sfname LIKE '%a';

```

Results

StudID	Sfname	Uname	pheno	DOB	DepID	HD	EnrollmentDate	Status	GPA	Advisor
1001	Fatima	Al Sad	92345678	2001-08-20	2	101	2022-09-01	Active	3.80	Dr. Sera
1003	Astha	Al Bushi	94567990	2002-11-30	4	103	2021-02-01	Inactive	3.10	Dr. Mona

Query executed successfully.

## 12. Display students with NULL advisor.

```

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\inoua (66)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] New Query [...]
college [college] Execute [...]
SELECT *
FROM student;
SELECT *
FROM student
WHERE Advisor IS NULL;

```

Results

StudID	Sfname	Uname	pheno	DOB	DepID	HD	EnrollmentDate	Status	GPA	Advisor
1002	Salm	Al Rayyan	93456789	2003-01-15	3	102	2020-09-01	Active	2.90	NULL
1004	Khalid	Al Harthy	95678991	2001-03-25	5	104	2019-09-01	Active	3.60	NULL

Query executed successfully.

## 13. Display students enrolled in 2021.

college.sql - DESKTOP-GILBFIO\inoura (66) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer

college

college.dbo.student

```

FROM student
WHERE Advisor IS NULL;

SELECT *
FROM student
WHERE YEAR(EnrollmentDate) = 2021;

```

StuID	SFname	LName	phoneno	DOB	DepID	HID	EnrollmentDate	Status	GPA	Advisor
1000	Ahmed	Al Hassan	91234567	2002-05-12	1	100	2021-09-01	Active	3.40	Dr. Ali
1003	Aisha	Al Bushi	94567890	2002-11-30	4	103	2021-02-01	Inactive	3.10	Dr. Mona

Query executed successfully.

## DML

**14. Insert your data as a new student (Student ID = 300045, Program ID = 2, GPA = 3.6).**

college.sql - DESKTOP-GILBFIO\inoura (66) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer

college

college.dbo.student

```

INSERT INTO student
(StuID, SFname, LName, phoneno, DOB, DepID, HID, EnrollmentDate, Status, GPA, Advisor)
VALUES
(300045, 'Noura', 'Almaskari', '99999999', '2002-01-01', 2, 101, '2023-09-01', 'Active', 3.6, 'Dr. Sara');

```

Msg 544, Level 16, State 1, Line 309  
Cannot insert explicit value for identity column in table 'student' when IDENTITY\_INSERT is set to OFF.

Completion time: 2025-12-15T11:35:46.0131522+04:00

Query completed with errors.

StuID INT PRIMARY KEY IDENTITY(1000,1)

**يعني**

- هو الذي يولد الرقم تلقائياً SQL Server
    - لا يسمح بإدخال قيمة يدوياً
    - لذلك عند كتابة:

StuID = 300045

ظهور خطأ

Cannot insert explicit value for identity column

ساترک StuID لا Identity

## ولن اكتب StuID في INSERT

The screenshot shows the Microsoft SQL Server Management Studio interface with the following details:

- Object Explorer:** On the left, it shows the database structure for "college".
- SQL Query Editor:** The main window contains two INSERT statements into the "student" table:

```
INSERT INTO student
    (StuID, Sfname, Lfname, phono, DOB, DepID, HID, EnrollmentDate, Status, GPA, Advisor)
VALUES
    ('300045', 'Noura', 'Almaskari', '99999999', '2002-01-01', 2, 101, '2023-09-01', 'Active', 3.6, 'Dr. Sara');

INSERT INTO student
    (Sfname, Lfname, phono, DOB, DepID, HID, EnrollmentDate, Status, GPA, Advisor)
VALUES
    ('Noura', 'Almaskari', '99999999', '2002-01-01', 2, 101, '2023-09-01', 'Active', 3.6, 'Dr. Sara');
```
- Status Bar:** At the bottom right, it shows "1 row affected", "Completion time: 2025-12-15T11:43:07.1532773+04:00", and "Query executed successfully."
- Taskbar:** At the bottom, it shows the taskbar with various pinned icons.

**15. Insert another student (your friend) with GPA and advisor set to NULL.**

```

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\oura (66)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Execute [ ] SQL Object Explorer [ ] Object Explorer
college [ ] college
Object Explorer [ ] Connect [ ] New Query [ ] File [ ] Database [ ] Help [ ]
[...] Execute [ ] SQL Object Explorer [ ] Object Explorer
college [ ] college
college - DESKTOP-GILBFI0\oura (66) * SQLQuery1.sql - DE...[ ] Messages [ ]
VALUES
('Noura', 'Almaskari', '99999999', '2002-01-01', 2, 101, '2023-09-01', 'Active', 3.6, 'Dr. Sara');

INSERT INTO student
(SName, LName, phoneno, DOB, DepID, HID, EnrollmentDate, Status, GPA, Advisor)
VALUES
('Amani', 'Said', '98888888', '2002-03-03', 1, 100, '2023-09-01', 'Active', NULL, NULL);

150% [ ] Messages
(1 row affected)

Completion time: 2025-12-15T11:44:32.5579055+04:00

```

Query executed successfully.

## 16. Increase your GPA by 0.2.

```

college.sql - DESKTOP-GILBFI0.college (DESKTOP-GILBFI0\oura (66)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Execute [ ] SQL Object Explorer [ ] Object Explorer
college [ ] college
Object Explorer [ ] Connect [ ] New Query [ ] File [ ] Database [ ] Help [ ]
[...] Execute [ ] SQL Object Explorer [ ] Object Explorer
college [ ] college
college - DESKTOP-GILBFI0\oura (66) * SQLQuery1.sql - DE...[ ] Messages [ ]
VALUES
('Amani', 'Said', '98888888', '2002-03-03', 1, 100, '2023-09-01', 'Active', NULL, NULL);

SELECT*FROM student;

UPDATE student
SET GPA = GPA + 0.2
WHERE StuID = 1005;

150% [ ] Messages
(1 row affected)

Completion time: 2025-12-15T11:48:41.1592535+04:00

```

Query executed successfully.

## 17. Set GPA to 2.0 for students with GPA below 2.0.

```
college.sql - DESKTOP-GILBFI0\hours (66) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Execute SQL New Query [...]
Object Explorer
College
Item Databases
Database Snapshots
Logins
Imports_5D
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Departments
dbo.Departments
dbo.Employee
Collections
Fname (nvarchar(50), null)
Lname (nvarchar(50), null)
→ SSN (PK, int, not null)
Date (datetime, null)
Address (nvarchar(50), null)
City (nvarchar(50), null)
Salary (int, null)
Supervisor (FK, int, null)
Onc (FK, int, null)
Keys
[...]
Triggers
Indexes
Statistics
dbo.Project
dbo.WorksFor
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDataBase
impanyDB
impanyBase
[...]
Objects
ation
use
Ready
26°C Sunny
```

```
college.sql - DESKTOP-GILBFI0\hours (66) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Execute SQL New Query [...]
Object Explorer
College
Item Databases
Database Snapshots
Logins
Imports_5D
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Departments
dbo.Departments
dbo.Employee
Collections
Fname (nvarchar(50), null)
Lname (nvarchar(50), null)
→ SSN (PK, int, not null)
Date (datetime, null)
Address (nvarchar(50), null)
City (nvarchar(50), null)
Salary (int, null)
Supervisor (FK, int, null)
Onc (FK, int, null)
Keys
[...]
Triggers
Indexes
Statistics
dbo.Project
dbo.WorksFor
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDataBase
impanyDB
impanyBase
[...]
Objects
ation
use
Ready
26°C Sunny
```

```
college.sql - DESKTOP-GILBFI0\hours (66) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Execute SQL New Query [...]
Object Explorer
College
Item Databases
Database Snapshots
Logins
Imports_5D
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Departments
dbo.Departments
dbo.Employee
Collections
Fname (nvarchar(50), null)
Lname (nvarchar(50), null)
→ SSN (PK, int, not null)
Date (datetime, null)
Address (nvarchar(50), null)
City (nvarchar(50), null)
Salary (int, null)
Supervisor (FK, int, null)
Onc (FK, int, null)
Keys
[...]
Triggers
Indexes
Statistics
dbo.Project
dbo.WorksFor
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDataBase
impanyDB
impanyBase
[...]
Objects
ation
use
Ready
26°C Sunny
```

```
SELECT * FROM student;

UPDATE student
SET GPA = GPA + 0.2
WHERE StuID = 1005;

UPDATE student
SET GPA = 2.0
WHERE GPA < 2.0;

UPDATE student
SET GPA = GPA + 0.1
WHERE EnrollmentDate < '2020-01-01';

150% - Messages
(0 rows affected)
Completion time: 2025-12-15T11:50:33.6867823+04:00
```

```
Microsoft Store Ln 337 Col 17 Ch 17 INS DESKTOP-GILBFI0 (15.0 RTM) | DESKTOP-GILBFI0\hours ... college 00:00:00 0 rows
11:51 AM ENG US d 12/15/2025
```

## 18. Increase GPA by 0.1 for students enrolled before 2020.

```
college.sql - DESKTOP-GILBFI0\hours (66) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Execute SQL New Query [...]
Object Explorer
College
Item Databases
Database Snapshots
Logins
Imports_5D
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Departments
dbo.Departments
dbo.Employee
Collections
Fname (nvarchar(50), null)
Lname (nvarchar(50), null)
→ SSN (PK, int, not null)
Date (datetime, null)
Address (nvarchar(50), null)
City (nvarchar(50), null)
Salary (int, null)
Supervisor (FK, int, null)
Onc (FK, int, null)
Keys
[...]
Triggers
Indexes
Statistics
dbo.Project
dbo.WorksFor
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDataBase
impanyDB
impanyBase
[...]
Objects
ation
use
Ready
27°C Sunny
```

```
college.sql - DESKTOP-GILBFI0\hours (66) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Execute SQL New Query [...]
Object Explorer
College
Item Databases
Database Snapshots
Logins
Imports_5D
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Departments
dbo.Departments
dbo.Employee
Collections
Fname (nvarchar(50), null)
Lname (nvarchar(50), null)
→ SSN (PK, int, not null)
Date (datetime, null)
Address (nvarchar(50), null)
City (nvarchar(50), null)
Salary (int, null)
Supervisor (FK, int, null)
Onc (FK, int, null)
Keys
[...]
Triggers
Indexes
Statistics
dbo.Project
dbo.WorksFor
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDataBase
impanyDB
impanyBase
[...]
Objects
ation
use
Ready
27°C Sunny
```

```
college.sql - DESKTOP-GILBFI0\hours (66) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
[...] Execute SQL New Query [...]
Object Explorer
College
Item Databases
Database Snapshots
Logins
Imports_5D
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Departments
dbo.Departments
dbo.Employee
Collections
Fname (nvarchar(50), null)
Lname (nvarchar(50), null)
→ SSN (PK, int, not null)
Date (datetime, null)
Address (nvarchar(50), null)
City (nvarchar(50), null)
Salary (int, null)
Supervisor (FK, int, null)
Onc (FK, int, null)
Keys
[...]
Triggers
Indexes
Statistics
dbo.Project
dbo.WorksFor
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
impanyDataBase
impanyDB
impanyBase
[...]
Objects
ation
use
Ready
27°C Sunny
```

```
SELECT * FROM student;

UPDATE student
SET GPA = GPA + 0.2
WHERE StuID = 1005;

UPDATE student
SET GPA = 2.0
WHERE GPA < 2.0;

UPDATE student
SET GPA = GPA + 0.1
WHERE EnrollmentDate < '2020-01-01';

150% - Messages
(1 row affected)
Completion time: 2025-12-15T12:10:14.3478751+04:00
```

```
Microsoft Store Ln 342 Col 37 Ch 37 INS DESKTOP-GILBFI0 (15.0 RTM) | DESKTOP-GILBFI0\hours ... college 00:00:00 0 rows
12:10 PM ENG US d 12/15/2025
```

## 19. Delete students with status 'Inactive'.

The screenshot shows the Microsoft SQL Server Management Studio interface. A query window titled 'college.mdf - DESK-GOLIFIO\college (DESKTOP-GOLIFIO\neuris 000) - Microsoft SQL Server Management Studio (Administrator)' contains the following T-SQL code:

```
SET GPA 2.0;
WHERE GPA < 2.0;

UPDATE student
SET GPA = GPA + 0.1
WHERE EnrollmentDate < '2020-01-01';

DELETE FROM student
WHERE Status = 'Inactive';
```

An error message is displayed in the results pane:

Msg 547, Level 16, State 0, Line 345  
The DELETE statement conflicted with the REFERENCE constraint "FK\_enrollment\_StuID\_396D8EE". The conflict occurred in database "college", table "dbo.enrollment".  
The statement has been terminated.  
Completion time: 2025-12-15T12:11:09.0126276+04:00

الطالب مربوط بسجلات في جدول enrollment:

student (StuID) ←— FK — enrollment (StuID)  
يمنع الحذف لأن: SQL Server

لا يمكن حذف سجل أب (Parent) له سجلات أبناء (Child))

اقدر اعمل Soft Delete

UPDATE student

SET Status = 'Deleted'

WHERE Status = 'Inactive';

او احذف السجلات التابعة أولاً ثم الطالب

-- 1. حذف من الجداول التابعة

DELETE FROM enrollment WHERE StuID IN ( SELECT StuID FROM student  
WHERE Status = 'Inactive' );

DELETE FROM studentsubject WHERE StuID IN ( SELECT StuID FROM student  
WHERE Status = 'Inactive' );

DELETE FROM studentexam WHERE StuID IN ( SELECT StuID FROM student  
WHERE Status = 'Inactive' );

-- 2. حذف الطالب

DELETE FROM student WHERE Status = 'Inactive';