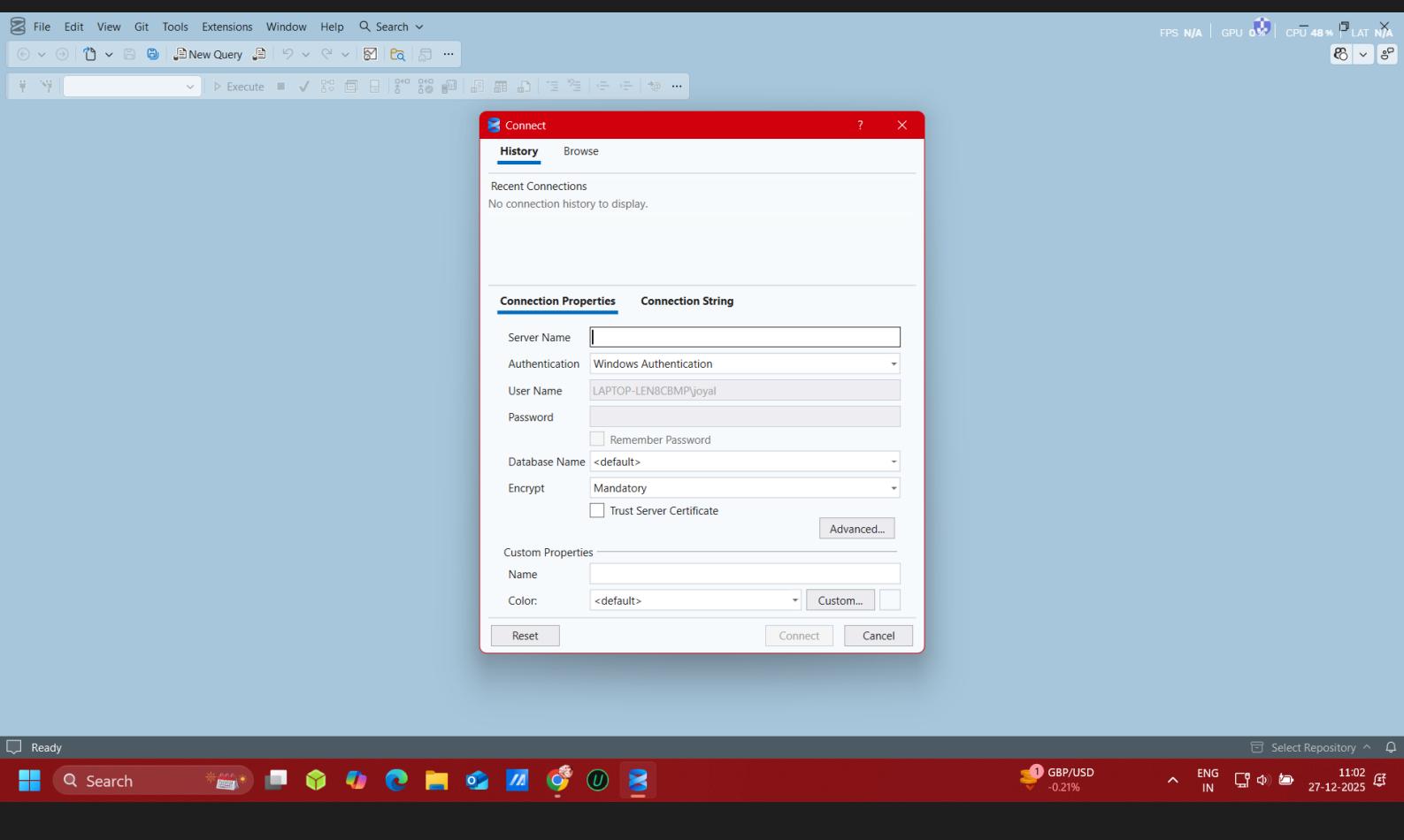
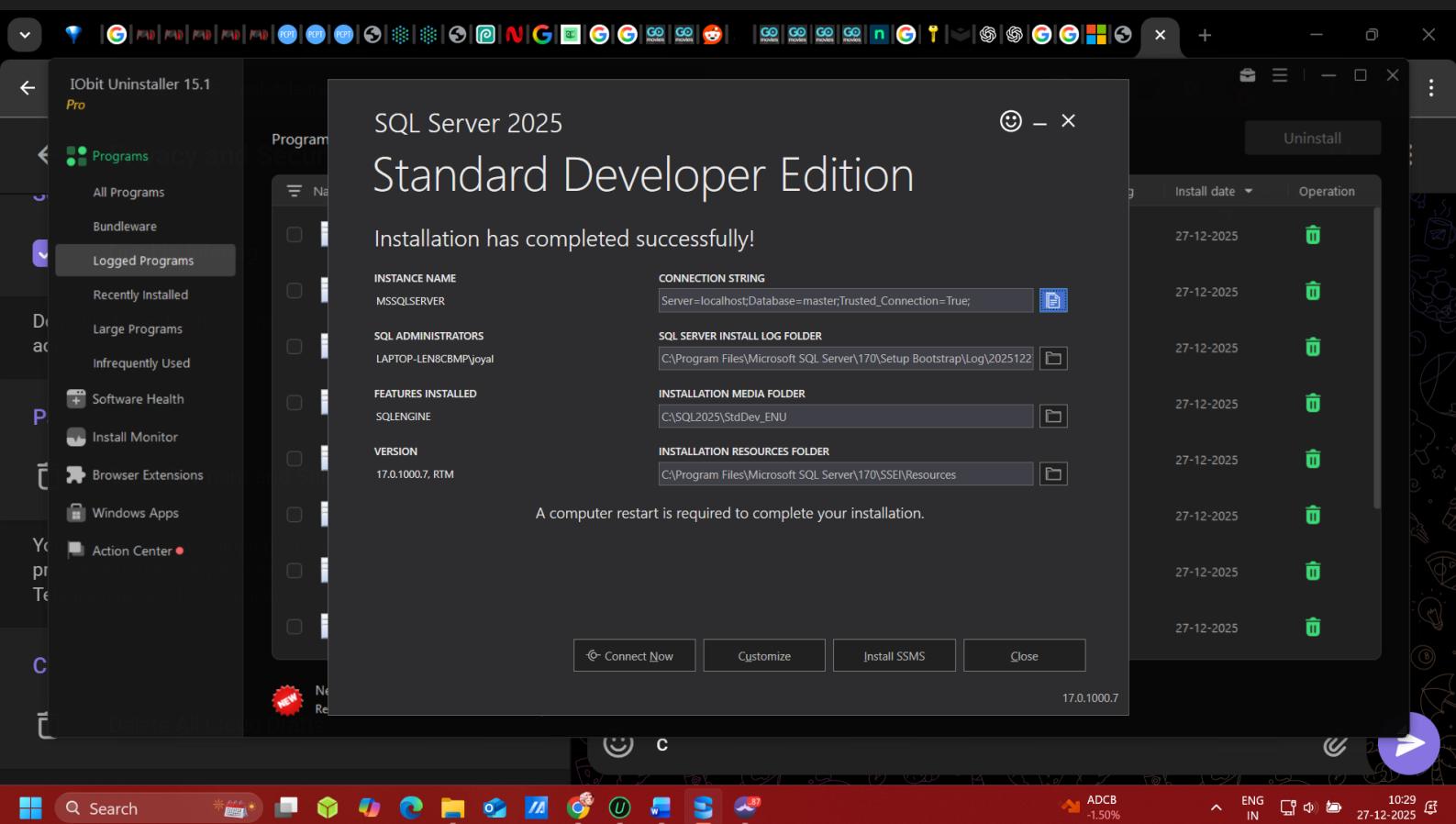
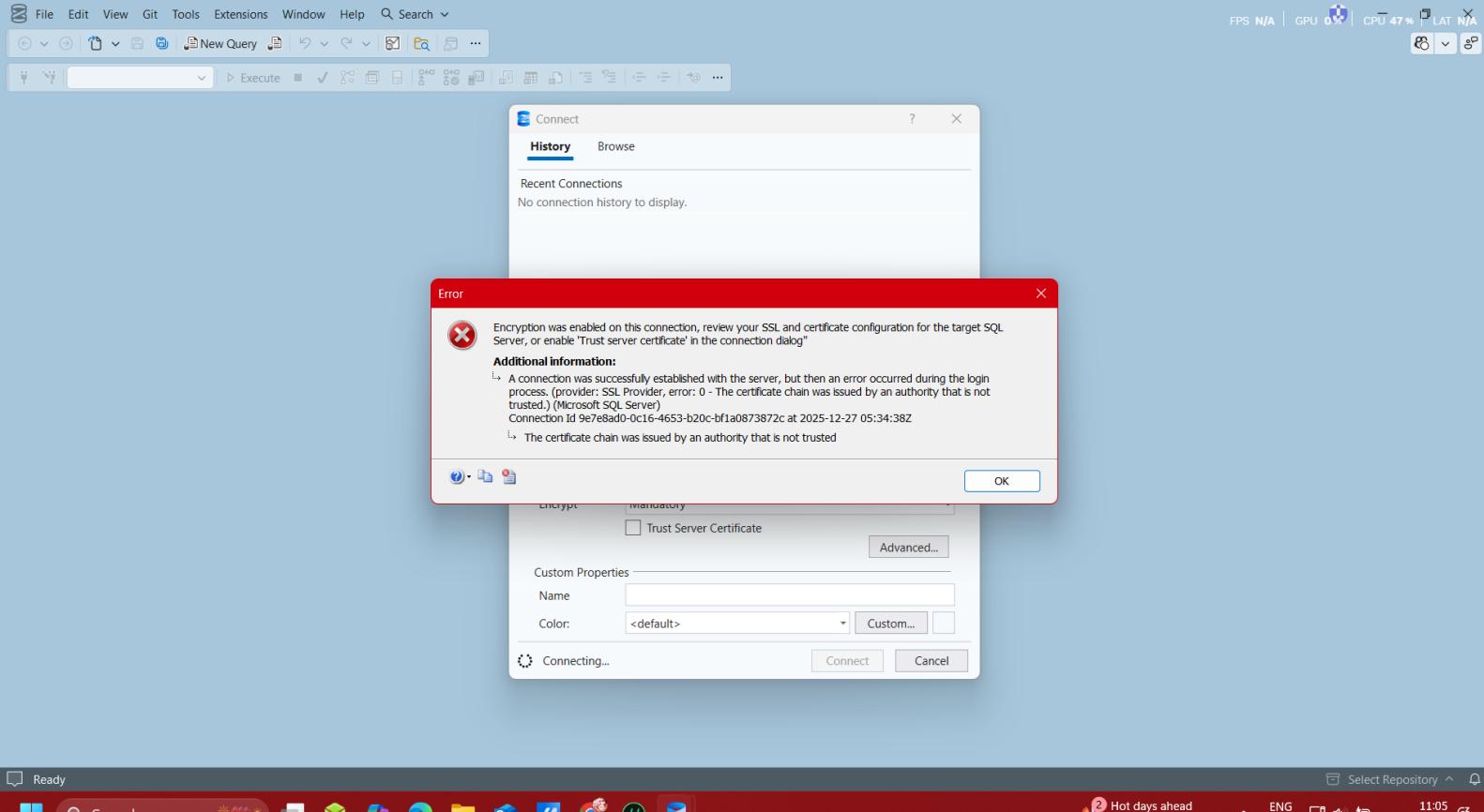


SQL Revision

Day 1

Installing SQL Standard developers edition and SSMS





Clicked trust server certificate and started.

Confirm if it is connected to sql server

master

Object Explorer

localhost (SQL Server 17.0.1000.7 - LAPTOP-LEN8CBMP\joyal)

195 % | No issues found

Results Messages

(No column name)

1 Microsoft SQL Server 2025 (RTM) - 17.0.1000.7 (X6...

Query executed successfully.

localhost (17.0 RTM) | LAPTOP-LEN8CBMP\joyal ... | master | 00:00:00 | Row: 1, Col: 1 | 1 rows

then click on new query

QUERY 1)

```
CREATE DATABASE Day1_SQL;
```

```
GO
```

```
USE Day1_SQL;
```

```
GO
```

The screenshot shows the SQL Server Management Studio (SSMS) interface. On the left, the Object Explorer pane displays the database structure for 'localhost (SQL Server 17.0.1000.7 - LAPTOP-LEN8CBMP\joyal)'. In the center, the 'SQLQuery2.s...|joyal (92)*' query window contains the following T-SQL code:

```
1 CREATE DATABASE Day1_SQL;
2 GO
3
4 USE Day1_SQL;
5 GO
```

The code is numbered 1 through 5. The 'Messages' tab at the bottom of the query window shows the output:

```
Commands completed successfully.
```

Below the messages, the completion time is displayed:

```
Completion time: 2025-12-27T11:10:15.1478906+05:30
```

The status bar at the bottom of the screen shows the following information:

```
Ln: 4, Ch: 1 TABS MIXED UTF-8 with BOM
localhost (17.0 RTM) LAPTOP-LEN8CBMP\joyal ... Day1_SQL 00:00:00 Row: 0, Col: 0 | 0 rows
```

The taskbar at the bottom of the screen includes icons for Start, Search, Task View, File Explorer, Edge, File Manager, Mail, and Task Scheduler. The system tray shows the date and time as 27-12-2025, 11:19, and the weather as 29°C Sunny.

QUERY 2)

```
CREATE TABLE Employees (
    EmployeeID INT PRIMARY KEY,
    FullName VARCHAR(100),
    Department VARCHAR(50),
    Salary INT,
    JoinDate DATE
);
```

The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. On the left, the Object Explorer pane displays the database structure for 'localhost (SQL Server 17.0.1000.7 - LAPTOP-LEN8CBMP\joyal)'. In the center, the 'SQLQuery2.s...joyal (92)*' tab contains the following SQL code:

```
CREATE TABLE Employees (
    EmployeeID INT PRIMARY KEY,
    FullName VARCHAR(100),
    Department VARCHAR(50),
    Salary INT,
    JoinDate DATE
);
```

The 'Messages' pane at the bottom shows the output: 'Commands completed successfully.' and 'Completion time: 2025-12-27T11:25:38.5653349+05:30'. The status bar at the bottom right indicates the session is running on 'localhost (17.0 RTM)' under the user 'LAPTOP-LEN8CBMP\joyal ...' with a connection ID of 'Day1_SQL'.

QUERY 3)

```
INSERT INTO Employees VALUES
(1, 'Anil Kumar', 'IT', 60000, '2021-03-15'),
(2, 'Rahul Menon', 'HR', 40000, '2020-06-10'),
(3, 'Sneha Nair', 'Finance', 55000, '2019-11-01'),
(4, 'Vijay Das', 'IT', 70000, '2018-01-25'),
(5, 'Neethu Joseph', 'HR', 45000, '2022-07-12'),
(6, 'Arjun Pillai', 'Finance', 50000, '2021-09-30'),
(7, 'Manoj Varma', 'IT', 80000, '2017-05-18');
```

The screenshot shows the SSMS interface with the Object Explorer on the left and two query panes on the right. The Object Explorer lists the database structure, including the 'Employees' table under 'Day1_SQL'. The top query pane contains an `INSERT INTO Employees VALUES` statement with 7 rows of data. The bottom pane shows the execution results: '(7 rows affected)' and 'Completion time: 2025-12-27T11:35:46.3134956+05:30'. A status bar at the bottom indicates 'Query executed successfully.'

```
1 | INSERT INTO Employees VALUES
2 | (1, 'Anil Kumar', 'IT', 60000, '2021-03-15'),
3 | (2, 'Rahul Menon', 'HR', 40000, '2020-06-10'),
4 | (3, 'Sneha Nair', 'Finance', 55000, '2019-11-01'),
5 | (4, 'Vijay Das', 'IT', 70000, '2018-01-25'),
6 | (5, 'Neethu Joseph', 'HR', 45000, '2022-07-12'),
7 | (6, 'Arjun Pillai', 'Finance', 50000, '2021-09-30'),
8 | (7, 'Manoj Varma', 'IT', 80000, '2017-05-18);|
```

and then verify with

```
SELECT * FROM Employees;
```

The screenshot shows the SSMS interface with the Object Explorer on the left and two query panes on the right. The Object Explorer lists the database structure, including the 'Employees' table under 'Day1_SQL'. The top query pane contains a `SELECT * FROM Employees` statement. The bottom pane displays the results in a grid format:

EmployeeID	FullName	Department	Salary	JoinDate
1	Anil Kumar	IT	60000	2021-03-15
2	Rahul Menon	HR	40000	2020-06-10
3	Sneha Nair	Finance	55000	2019-11-01
4	Vijay Das	IT	70000	2018-01-25
5	Neethu Joseph	HR	45000	2022-07-12
6	Arjun Pillai	Finance	50000	2021-09-30
7	Manoj Varma	IT	80000	2017-05-18

A status bar at the bottom indicates 'Query executed successfully.'

1)SELECT specific columns

```
SELECT FullName,Salary  
FROM Employees;
```

The screenshot shows the SSMS interface with the following details:

- Object Explorer:** Shows the database structure for "Day1_SQL". It includes nodes for Databases, Tables (with sub-nodes like System Tables, FileTables, External Tables, Graph Tables), Views, and Security.
- SQL Query Editor:** Contains the following T-SQL code:

```
1  SELECT FullName,Salary  
2  FROM Employees;
```
- Results Grid:** Displays the output of the query, showing 7 rows of employee data:

	FullName	Salary
1	Anil Kumar	60000
2	Rahul Menon	40000
3	Sneha Nair	55000
4	Vijay Das	70000
5	Neethu Joseph	45000
6	Arjun Pillai	50000
7	Manoj Varma	80000
- Status Bar:** Shows "Query executed successfully." and connection information: "localhost (17.0 RTM) | LAPTOP-LEN8CBMP\joyal ... | Day1_SQL | 00:00:00 | Row: 1, Col: 1 | 7 rows".
- Taskbar:** Shows the Windows taskbar with various pinned icons and the system tray indicating "30°C Sunny" and the date "27-12-2025".

2)WHERE (filter rows)

```
SELECT *  
FROM Employees  
WHERE Department = 'IT';
```

File Edit View Query Git Project Tools Extensions Window Help Search ...

New Query Execute ...

Object Explorer

Connect

localhost (SQL Server 17.0.1000.7 - LAPTOP-LEN8CBMP\joyal)

- Databases
- System Databases
- Database Snapshots
- Day1_SQL
- Database Diagrams
- Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.Employees
 - Dropped Ledger Tables
- Views
- External Resources
- Synonyms
- Programmability
- Query Store
- Service Broker
- Storage
- Security
- Server Objects
- Replication
- Always On High Availability
- Management
 - SQL Server Agent (Agent XPs disabled)
- XEvent Profiler

SQLQuery3.s...\\joyal (51)* SQLQuery2.sql...\\joyal (92)* SQLQuery1.sql...\\joyal (90)*

```
1 | SELECT *
2 | FROM Employees
3 | WHERE Department = 'IT';
```

161% No issues found Ln: 3, Ch: 25 TABS CRLF Windows 1252

Results Messages

EmployeeID	FullName	Department	Salary	JoinDate
1	Anil Kumar	IT	60000	2021-03-15
2	Vijay Das	IT	70000	2018-01-25
3	Manoj Varma	IT	80000	2017-05-18

Query executed successfully. 30°C Sunny 11:47 27-12-2025

```
SELECT *
FROM Employees
WHERE Salary > 50000 ;
```

File Edit View Query Git Project Tools Extensions Window Help Search ...

New Query Execute ...

Object Explorer

Connect

localhost (SQL Server 17.0.1000.7 - LAPTOP-LEN8CBMP\joyal)

- Databases
- System Databases
- Database Snapshots
- Day1_SQL
- Database Diagrams
- Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.Employees
 - Dropped Ledger Tables
- Views
- External Resources
- Synonyms
- Programmability
- Query Store
- Service Broker
- Storage
- Security
- Server Objects
- Replication
- Always On High Availability
- Management
 - SQL Server Agent (Agent XPs disabled)
- XEvent Profiler

SQLQuery3.s...\\joyal (51)* SQLQuery2.sql...\\joyal (92)* SQLQuery1.sql...\\joyal (90)*

```
1 | SELECT *
2 | FROM Employees
3 | WHERE Salary > 50000 ;
```

161% No issues found Ln: 3, Ch: 21 TABS CRLF Windows 1252

Results Messages

EmployeeID	FullName	Department	Salary	JoinDate
1	Anil Kumar	IT	60000	2021-03-15
2	Sneha Nair	Finance	55000	2019-11-01
3	Vijay Das	IT	70000	2018-01-25
4	Manoj Varma	IT	80000	2017-05-18

Query executed successfully. 30°C Sunny 11:54 27-12-2025

3) AND/OR

```
SELECT *
FROM Employees
WHERE Department = 'IT'
AND Salary > 60000 ;
```

The screenshot shows the SQL Server Management Studio (SSMS) interface. On the left is the Object Explorer pane, which lists the database structure for 'localhost (SQL Server 17.0.1000.7 - LAPTOP-LEN8CBMP\joyal)'. In the center is the SQL Query window titled 'SQLQuery3.s...\\joyal (51)*'. The query is:

```
1 SELECT *
2 FROM Employees
3 WHERE Department = 'IT'
4 AND Salary > 60000 ;
```

The results pane shows a table with two rows:

	EmployeeID	FullName	Department	Salary	JoinDate
1	4	Vijay Das	IT	70000	2018-01-25
2	7	Manoj Varma	IT	80000	2017-05-18

At the bottom of the results pane, a message says 'Query executed successfully.' The status bar at the bottom right indicates the connection is to 'localhost (17.0 RTM)' on port 'Day1_SQL' at '00:00:00'.

```
SELECT *
FROM Employees
WHERE Department = 'IT'
OR Department = 'Finance' ;
```

```
1 | SELECT *
2 | FROM Employees
3 | WHERE Department = 'HR'
4 | OR Department = 'Finance';
```

	EmployeeID	FullName	Department	Salary	JoinDate
1	2	Rahul Menon	HR	40000	2020-06-10
2	3	Sneha Nair	Finance	55000	2019-11-01
3	5	Neethu Joseph	HR	45000	2022-07-12
4	6	Arjun Pillai	Finance	50000	2021-09-30

Query executed successfully.

4) ORDER BY(default ASC)

```
SELECT *
FROM Employees
ORDER BY Salary DESC;
```

```
1 | SELECT *
2 | FROM Employees
3 | ORDER BY Salary DESC;
```

	EmployeeID	FullName	Department	Salary	JoinDate
1	7	Manoj Varma	IT	80000	2017-05-18
2	4	Vijay Das	IT	70000	2018-01-25
3	1	Anil Kumar	IT	60000	2021-03-15
4	3	Sneha Nair	Finance	55000	2019-11-01
5	6	Arjun Pillai	Finance	50000	2021-09-30
6	5	Neethu Joseph	HR	45000	2022-07-12
7	2	Rahul Menon	HR	40000	2020-06-10

Query executed successfully.



```
SELECT *
FROM Employees
ORDER BY Department, Salary;
```

The screenshot shows the SSMS interface with the following details:

- Object Explorer:** Shows the database structure, including the 'Day1_SQL' database which contains tables like 'dbo.Employees'.
- SQL Query Editor:** Contains the query: `SELECT * FROM Employees ORDER BY Department, Salary;`
- Results Grid:** Displays the output of the query with 7 rows of data:

	EmployeeID	FullName	Department	Salary	JoinDate
1	6	Arjun Pillai	Finance	50000	2021-09-30
2	3	Sneha Nair	Finance	55000	2019-11-01
3	2	Rahul Menon	HR	40000	2020-06-10
4	5	Neethu Joseph	HR	45000	2022-07-12
5	1	Anil Kumar	IT	60000	2021-03-15
6	4	Vijay Das	IT	70000	2018-01-25
7	7	Manoj Varma	IT	80000	2017-05-18

- Status Bar:** Shows 'Query executed successfully.' and other system information.

ASK YOURSELF(Very Important)

Ask yourself for **every query**:

- What rows am I filtering?
- What columns am I returning?
- Why is this useful to a business?

If you can't explain it in words, you don't understand it yet.

PRACTICE TASKS

Write and run queries for:

1. Employees who joined **after 2020**

```
--Employees who joined after 2020
SELECT *
FROM Employees
WHERE YEAR(JoinDate) > 2020 ;
```

```
--Employees who joined after 2020
SELECT *
FROM Employees
WHERE YEAR(JoinDate) > 2020;
```

	EmployeeID	FullName	Department	Salary	JoinDate
1	1	Anil Kumar	IT	60000	2021-03-15
2	5	Neethu Joseph	HR	45000	2022-07-12
3	6	Arjun Pillai	Finance	50000	2021-09-30

2. Employees earning less than 50,000

```
--Employees earning less than 50000
SELECT *
FROM Employees
WHERE Salary < 50000;
```

```
--Employees earning less than 50000
SELECT *
FROM Employees
WHERE Salary < 50000;
```

	EmployeeID	FullName	Department	Salary	JoinDate
1	2	Rahul Menon	HR	40000	2020-06-10
2	5	Neethu Joseph	HR	45000	2022-07-12

3. IT employees ordered by highest salary first

--IT employees ordered by highest salary first

```
SELECT *
FROM Employees
WHERE Department = 'IT'
ORDER BY Salary DESC;
```

The screenshot shows the SSMS interface with the following details:

- Object Explorer:** On the left, it shows the database structure for "localhost (SQL Server 17.0.1000.7 - LAPTOP-LEN8CBMP)\joyal". It includes nodes for Databases, Tables, Views, and other system objects.
- Query Editor:** In the center, there are three tabs: "SQLQuery3.sql...\\joyal (51)*", "SQLQuery2.sql...\\joyal (92)*", and "SQLQuery1.sql...\\joyal (90)*". The active tab contains the query code provided in the text above.
- Results Window:** Below the tabs, the results of the query are displayed in a table format. The table has columns: EmployeeID, FullName, Department, Salary, and JoinDate. The data is as follows:

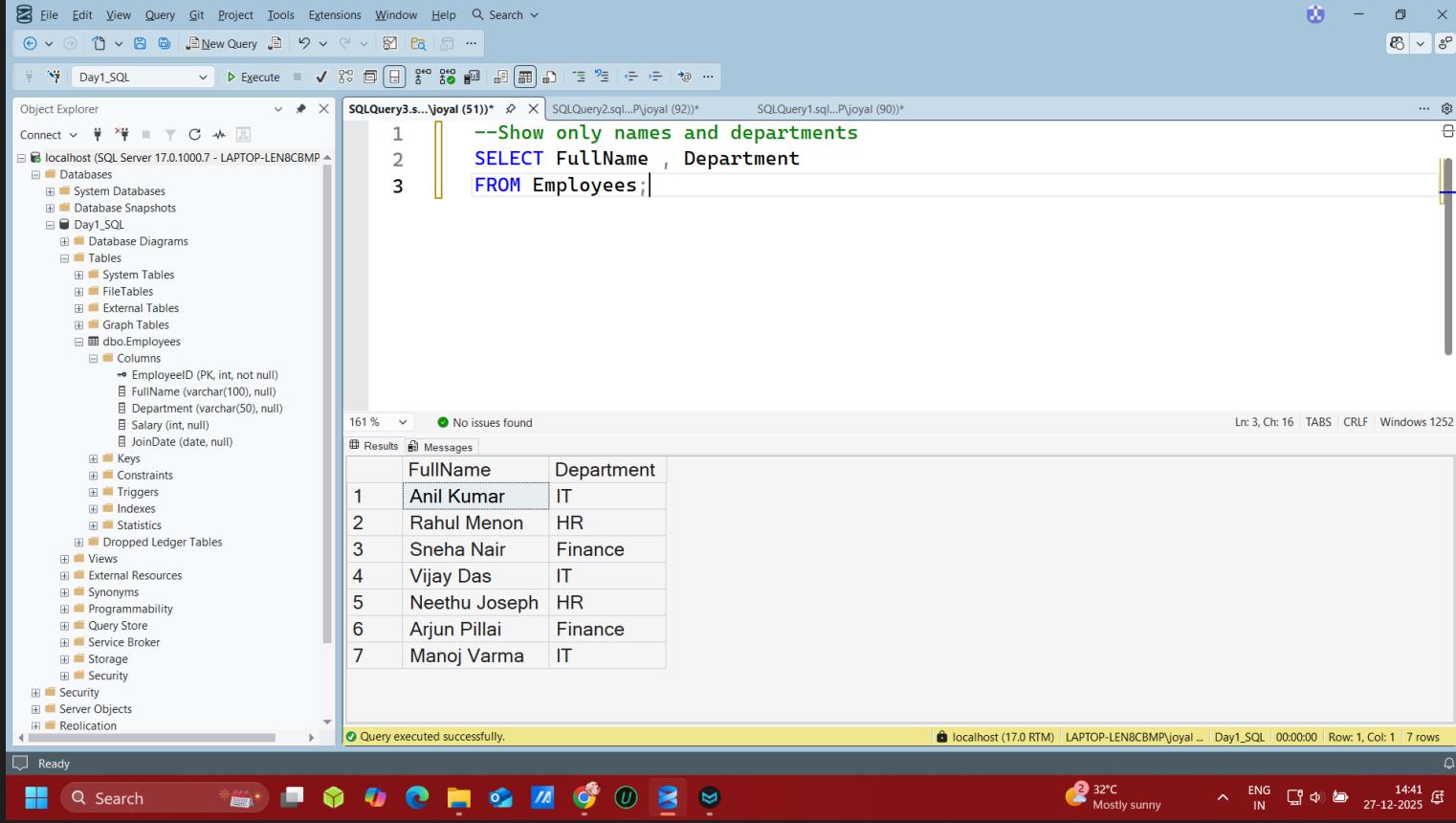
	EmployeeID	FullName	Department	Salary	JoinDate
1	7	Manoj Varma	IT	80000	2017-05-18
2	4	Vijay Das	IT	70000	2018-01-25
3	1	Anil Kumar	IT	60000	2021-03-15

At the bottom of the results window, a message says "Query executed successfully." and shows the connection details: "localhost (17.0 RTM) | LAPTOP-LEN8CBMP\joyal ... | Day1_SQL | 00:00:00 | Row: 1, Col: 1 | 3 rows".

4. Show only names and departments

--Show only names and departments

```
SELECT FullName , Department
FROM Employees;
```

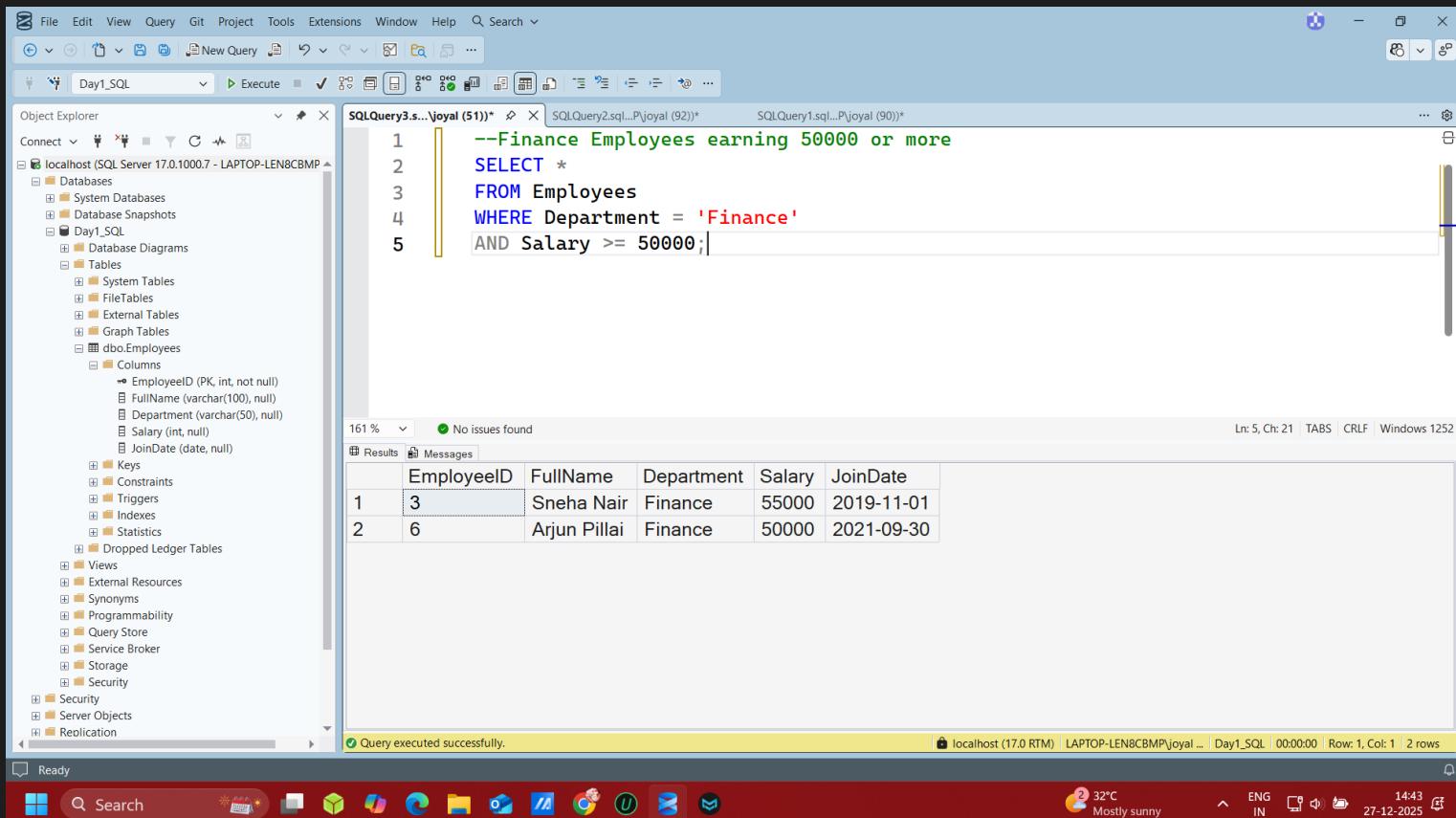


```
--Show only names and departments
SELECT FullName , Department
FROM Employees;
```

	FullName	Department
1	Anil Kumar	IT
2	Rahul Menon	HR
3	Sneha Nair	Finance
4	Vijay Das	IT
5	Neethu Joseph	HR
6	Arjun Pillai	Finance
7	Manoj Varma	IT

5. Finance employees earning 50,000 or more

```
--Finance Employees earning 50000 or more
SELECT *
FROM Employees
WHERE Department = 'Finance'
AND Salary >= 50000;
```



```
--Finance Employees earning 50000 or more
SELECT *
FROM Employees
WHERE Department = 'Finance'
AND Salary >= 50000;
```

	EmployeeID	FullName	Department	Salary	JoinDate
1	3	Sneha Nair	Finance	55000	2019-11-01
2	6	Arjun Pillai	Finance	50000	2021-09-30

SUGGESTIONS AND CORRECTIONS

EVALUATION OF YOUR QUERIES (HONEST REVIEW)

1 Employees who joined after 2020

```
WHERE YEAR(JoinDate) > 2020;
```

- ✓ Logically correct
- ✗ Professionally weak

Why?

Using `YEAR()` on a column:

- Breaks index usage
- Slows queries on large tables

💡 Correct professional version:

```
WHERE JoinDate >= '2021-01-01';
```

👉 This is **sargable** (index-friendly).

Remember this — interviewers look for it.

2 Employees earning less than 50,000

- ✓ Correct
- ✓ Clean
- ✓ No issues

Good.

3 IT employees ordered by highest salary

- ✓ Correct
- ✓ Proper `ORDER BY DESC`

Good.

4 Only names and departments

- ✓ Correct
- ✓ Clean projection

Good.

5 Finance employees earning 50,000 or more

- ✓ Correct
- ✓ Correct use of `AND`

Good.

⚠ ONE IMPORTANT HABIT FIX (START NOW)

- ✗ Don't rely on screenshots
- ✗ Don't rely on visual confirmation
- Trust query logic and row counts

Professionals don't paste screenshots.
They paste **queries and reasoning**.

You did the right thing by pasting SQL.

⌚ KEY LESSON FROM DAY 1 (LOCK THIS IN)

SQL is not just "getting results"
SQL is **how efficiently** you get results

From Day 2 onward:

- Avoid functions on columns in `WHERE`
- Think: "*Would this work on 10 million rows?*"

☑ STATUS

- Discipline: **Good**
- Execution: **Good**
- Thinking: **Needs sharpening (normal)**

You're on track.

