

ASSIGNMENT 2

1) (2 Marks) Write a query to list all system databases in SQL Server.

```
-- 1) (2 Marks) List all system databases in SQL Server
SELECT name FROM sys.databases
WHERE database_id <= 4;
```

100 %

Results Messages

| | name |
|---|--------|
| 1 | master |
| 2 | tempdb |
| 3 | model |
| 4 | msdb |

2) (2 Marks) Identify the physical database files (MDF, LDF) of a user-defined database named "SalesDB" using a SQL query.

```
-- 2) (2 Marks) Create "SalesDB" if it doesn't exist before retrieving file details
IF NOT EXISTS (SELECT name FROM sys.databases WHERE name = 'SalesDB')
    CREATE DATABASE SalesDB;
GO
```

100 %

Messages

Commands completed successfully.

Completion time: 2025-03-25T09:50:48.0502684+05:30

```
-- Identify the physical database files (MDF, LDF) for "SalesDB"
SELECT name, physical_name, type_desc
FROM sys.master_files
WHERE database_id = DB_ID('SalesDB');
```

100 %

Results Messages

| | name | physical_name | type_desc |
|---|-------------|------------------------------------------------------|-----------|
| 1 | SalesDB | C:\Program Files\Microsoft SQL Server\MSSQL16.NIS... | ROWS |
| 2 | SalesDB_log | C:\Program Files\Microsoft SQL Server\MSSQL16.NIS... | LOG |

3) (2 Marks) Create a user-defined database named "InventoryDB" with a primary data file of 5MB and a log file of 2MB.

SQLQuery1.sql - NI...NTHINI\nisha (67) * X

```
-- 3) (2 Marks) Create a user-defined database named "InventoryDB" with a primary data file of 5MB and a log file of 2MB
CREATE DATABASE InventoryDB
ON PRIMARY (NAME = 'InventoryDB_Data', FILENAME = 'C:\SQLData\InventoryDB.mdf', SIZE = 5MB)
LOG ON (NAME = 'InventoryDB_Log', FILENAME = 'C:\SQLData\InventoryDB.ldf', SIZE = 2MB);
```

100 %

Results Messages

| | name | physical_name | type_desc |
|---|-------------|------------------------------------------------------|-----------|
| 1 | SalesDB | C:\Program Files\Microsoft SQL Server\MSSQL16.NIS... | ROWS |
| 2 | SalesDB_log | C:\Program Files\Microsoft SQL Server\MSSQL16.NIS... | LOG |

4) (2 Marks) Rename the database "InventoryDB" to "StockDB" using a SQL query.

```
-- 4) (2 Marks) Rename the database "InventoryDB" to "StockDB"
ALTER DATABASE InventoryDB MODIFY NAME = StockDB;
```

100 %

Messages

The database name 'StockDB' has been set.

Completion time: 2025-03-25T09:54:54.3945534+05:30

5) (2 Marks) Drop the database "StockDB" using a SQL query.

SQLQuery1.sql - NI...NTHINI\nisha (67))* ✕

```
-- 5) (2 Marks) Drop the database "StockDB"
USE master;
IF EXISTS (SELECT name FROM sys.databases WHERE name = 'StockDB')
BEGIN
    ALTER DATABASE StockDB SET SINGLE_USER WITH ROLLBACK IMMEDIATE;
    DROP DATABASE StockDB;
END
```

100 %

Messages

Nonqualified transactions are being rolled back. Estimated rollback completion: 0%.

Nonqualified transactions are being rolled back. Estimated rollback completion: 100%.

Completion time: 2025-03-25T09:56:56.8486303+05:30

6) (2 Marks) Write a query to display all available data types in SQL Server.

SQLQuery1.sql - NI...NTHINI\nisha (67))* ✕

```

ALTER DATABASE StockDB SET SINGLE_USER WITH ROLLBACK IMMEDIATE;
DROP DATABASE StockDB;
END

-- 6) (2 Marks) Display all available data types in SQL Server
SELECT name AS DataType FROM sys.types;

```

100 %

Results Messages

| | DataType |
|----|----------------|
| 1 | bigint |
| 2 | binary |
| 3 | bit |
| 4 | char |
| 5 | date |
| 6 | datetime |
| 7 | datetime2 |
| 8 | datetimeoffset |
| 9 | decimal |
| 10 | float |
| 11 | geography |
| 12 | geometry |
| 13 | hierarchyid |
| 14 | image |
| 15 | int |
| 16 | money |
| 17 | nchar |
| 18 | ntext |
| 19 | numeric |
| 20 | nvarchar |
| 21 | real |
| 22 | smalldatetime |
| 23 | smallint |
| 24 | smallmoney |
| 25 | sql_variant |
| 26 | sysname |
| 27 | text |
| 28 | time |
| 29 | timestamp |
| 30 | tinyint |

✓ Query executed successfully.

7) (2 Marks) Create a table "Products" with the following columns:

ProductID (Integer, Primary Key), ProductName (Variable-length string, max 50 characters, Not Null), Price (Decimal with 2 decimal places), StockQuantity (Integer, Default value 0)

SQLQuery1.sql - NI...NTHINI\nisha (67))* ✕

```

-- 7) (2 Marks) Create a table "Products" with the required columns
CREATE TABLE Products (
    ProductID INT PRIMARY KEY,
    ProductName VARCHAR(50) NOT NULL,
    Price DECIMAL(10,2),
    StockQuantity INT DEFAULT 0
);

```

100 %

Messages

Commands completed successfully.

Completion time: 2025-03-25T09:59:18.1946323+05:30

8)(2 Marks) Modify the "Products" table to add a new column Category (VARCHAR(30)).

```
SQLQuery1.sql - NI...NTHINI\nisha (67))* X
-- 8) (2 Marks) Modify the "Products" table to add a new column "Category"
ALTER TABLE Products ADD Category VARCHAR(30);
```

100 %

Messages

Commands completed successfully.

Completion time: 2025-03-25T10:00:30.1480939+05:30

9)(2 Marks) Rename the table "Products" to "Inventory".

```
SQLQuery1.sql - NI...NTHINI\nisha (67))* X
ALTER TABLE Products ADD Category VARCHAR(30);

-- 9) (2 Marks) Rename the "Products" table to "Inventory"
EXEC sp_rename 'Products', 'Inventory';
```

100 %

Messages

Caution: Changing any part of an object name could break scripts and stored procedures.

Completion time: 2025-03-25T10:01:02.8648284+05:30

10)(2 Marks) Drop the "Inventory" table from the database.

```
SQLQuery1.sql - NI...NTHINI\nisha (67))* X
EXEC sp_rename 'Products', 'Inventory';

-- 10) (2 Marks) Drop the "Inventory" table
DROP TABLE Inventory;
```

100 %

Messages

Commands completed successfully.

Completion time: 2025-03-25T10:01:27.2823202+05:30

11)(5 Marks) Identify and list the system databases available in SQL Server. Provide a brief description of each.

SQLQuery1.sql - NI...NTHINI\nisha (67))*

```
-- 11) (5 Marks) Identify and list system databases with a brief description
SELECT name AS DatabaseName, database_id, state_desc
FROM sys.databases;
```

100 %

Results Messages

| | DatabaseName | database_id | state_desc |
|----|--------------------|-------------|------------|
| 1 | master | 1 | ONLINE |
| 2 | tempdb | 2 | ONLINE |
| 3 | model | 3 | ONLINE |
| 4 | msdb | 4 | ONLINE |
| 5 | foundationtraining | 5 | ONLINE |
| 6 | training | 6 | ONLINE |
| 7 | TechShop | 7 | ONLINE |
| 8 | StudentRecords | 8 | ONLINE |
| 9 | ProjectManagement | 9 | ONLINE |
| 10 | EmployeeRecords | 10 | ONLINE |
| 11 | SalesDB | 11 | ONLINE |

12)(5 Marks) Write a query to display all database files (MDF, LDF, NDF) for a specific database.

SQLQuery1.sql - NI...NTHINI\nisha (67))*

```
-- 12) (5 Marks) Display all database files (MDF, LDF, NDF) for a specific database
SELECT name, type_desc, physical_name
FROM sys.master_files
WHERE database_id = DB_ID('SalesDB');
```

100 %

Results Messages

| | name | type_desc | physical_name |
|---|-------------|-----------|------------------------------------------------------|
| 1 | SalesDB | ROWS | C:\Program Files\Microsoft SQL Server\MSSQL16.NIS... |
| 2 | SalesDB_log | LOG | C:\Program Files\Microsoft SQL Server\MSSQL16.NIS... |

13) (5 Marks) Create a new user-defined database named SalesDB with a primary data file of 10MB and a log file of 5MB.

SQLQuery1.sql - NI...NTHINI\nisha (67))*

```
-- 13) (5 Marks) Create "SalesDB" with a 10MB primary file and 5MB log file
IF NOT EXISTS (SELECT name FROM sys.databases WHERE name = 'SalesDB')
CREATE DATABASE SalesDB
ON PRIMARY (NAME = 'SalesDB_Data', FILENAME = 'C:\SQLData\SalesDB.mdf', SIZE = 10MB)
LOG ON (NAME = 'SalesDB_Log', FILENAME = 'C:\SQLData\SalesDB.ldf', SIZE = 5MB);
GO
```

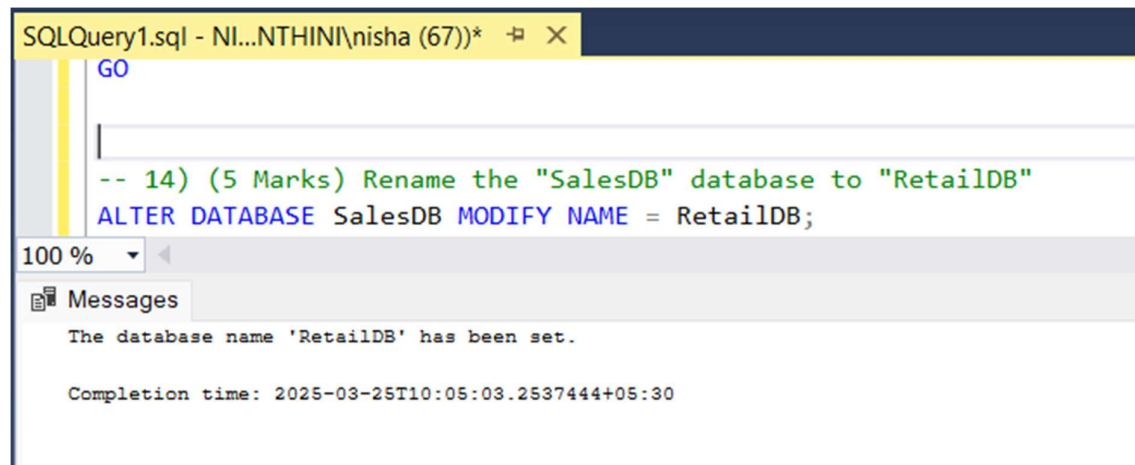
100 %

Messages

Commands completed successfully.

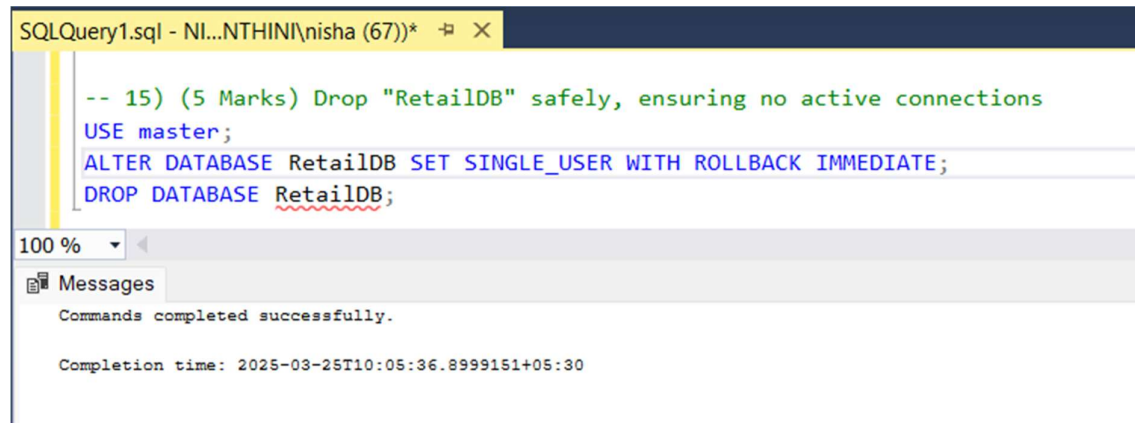
Completion time: 2025-03-25T10:04:34.4726091+05:30

14)(5 Marks) Rename the database SalesDB to RetailDB using an SQL query.



The screenshot shows a SQL query window titled "SQLQuery1.sql - NI...NTHINI\nisha (67))" with a "GO" button. The query text is:
-- 14) (5 Marks) Rename the "SalesDB" database to "RetailDB"
ALTER DATABASE SalesDB MODIFY NAME = RetailDB;
Below the query window is a "Messages" pane showing the execution result:
The database name 'RetailDB' has been set.
Completion time: 2025-03-25T10:05:03.2537444+05:30

15) (5 Marks) Drop the RetailDB database safely, ensuring that no active connections exist before deletion.



The screenshot shows a SQL query window titled "SQLQuery1.sql - NI...NTHINI\nisha (67))" with a "GO" button. The query text is:
-- 15) (5 Marks) Drop "RetailDB" safely, ensuring no active connections
USE master;
ALTER DATABASE RetailDB SET SINGLE_USER WITH ROLLBACK IMMEDIATE;
DROP DATABASE RetailDB;
Below the query window is a "Messages" pane showing the execution result:
Commands completed successfully.
Completion time: 2025-03-25T10:05:36.8999151+05:30