

1. Create the “BCM_ORDER_MGT” table using the script - DB_Prerequisite.sql

Change prequite sql fields to make it compatible to MSSQL

Did not change any original values

Run Script:

Viewing inserted values in the BCM_ORDER_MGT Table
Script: select * from BCM_ORDER_MGT

DB_Prerequisite Updated to ssmssql - 4|PRX3|SQL2022DE.MCB_Assignment_2025 (DAN001SD233484 (68)) - Microsoft SQL Server Management Studio

Quick Launch (Ctrl+Q)

File Edit View Query Project Tools Window Help

Object Explorer

MCB_Assignment_2025

DB_Prerequisite_U_001SD233484 (68)*

Connect

File 4|PRX3|SQL2022DE (SQL Server 16.1) Databases System Databases Database Snapshots asparte DWConfiguration DWConfiguratio DWQueue library_db library_management MCB_Assignment_2025 Database Diagrams Tables System Tables FileTables External Tables Graph Tables dbo.BCM_ORDER_MGT Dropped Ledger Tables Views External Resources Synonyms Programmability Query Store Service Broker Storage Security Printers System Console TRGAAuthentication TRGManagement TRGMaster TRGRUserTracking Security

295 VALUES ('PO014-5', '15-SEP-2024', 'DIGISAY CO. LTD.', 'Berry Parker', '68, Marock Lane, - , Vacoas, Mauritius', '57841266, 6828010', 'bparker@intnet.mu', NULL, 'EPSON LQ310 DOT MATRIX', '2000')

296 INSERT INTO BCM_ORDER_MGT (ORDER_REF, ORDER_DATE, SUPPLIER_NAME, SUPP_CONTACT_NAME, SUPP_ADDRESS, SUPP_CONTACT_NUMBER, SUPP_EMAIL, ORDER_TOTAL_AMOUNT, ORDER_DESCRIPTION, ORDER_STATUS, VALUES ('PO014-5', '15-SEP-2024', 'DIGISAY CO. LTD.', 'Berry Parker', '68, Marock Lane, - , Vacoas, Mauritius', '57841266, 6828010', 'bparker@intnet.mu', NULL, 'LENOVO 550-30 x 5', 'Re')

297 INSERT INTO BCM_ORDER_MGT (ORDER_REF, ORDER_DATE, SUPPLIER_NAME, SUPP_CONTACT_NAME, SUPP_ADDRESS, SUPP_CONTACT_NUMBER, SUPP_EMAIL, ORDER_TOTAL_AMOUNT, ORDER_DESCRIPTION, ORDER_STATUS, VALUES ('PO014-5', '15-SEP-2024', 'DIGISAY CO. LTD.', 'Berry Parker', '68, Marock Lane, - , Vacoas, Mauritius', '57841266, 6828010', 'bparker@intnet.mu', NULL, 'LENOVO 550-30 x 5', 'Re')

298 INSERT INTO BCM_ORDER_MGT (ORDER_REF, ORDER_DATE, SUPPLIER_NAME, SUPP_CONTACT_NAME, SUPP_ADDRESS, SUPP_CONTACT_NUMBER, SUPP_EMAIL, ORDER_TOTAL_AMOUNT, ORDER_DESCRIPTION, ORDER_STATUS, VALUES ('PO014-5', '15-SEP-2024', 'DIGISAY CO. LTD.', 'Berry Parker', '68, Marock Lane, - , Vacoas, Mauritius', '57841266, 6828010', 'bparker@intnet.mu', NULL, 'LENOVO 550-30 x 5', 'Re')

299 VALUES ('PO014-5', '15-SEP-2024', 'DIGISAY CO. LTD.', 'Berry Parker', '68, Marock Lane, - , Vacoas, Mauritius', '57841266, 6828010', 'bparker@intnet.mu', NULL, 'LENOVO 550-30 x 5', 'Re')

300 INSERT INTO BCM_ORDER_MGT (ORDER_REF, ORDER_DATE, SUPPLIER_NAME, SUPP_CONTACT_NAME, SUPP_ADDRESS, SUPP_CONTACT_NUMBER, SUPP_EMAIL, ORDER_TOTAL_AMOUNT, ORDER_DESCRIPTION, ORDER_STATUS, VALUES ('PO014-5', '15-SEP-2024', 'DIGISAY CO. LTD.', 'Berry Parker', '68, Marock Lane, - , Vacoas, Mauritius', '57841266, 6828010', 'bparker@intnet.mu', NULL, 'LENOVO 550-30 x 5', 'Re')

301 VALUES ('PO014-5', '15-SEP-2024', 'DIGISAY CO. LTD.', 'Berry Parker', '68, Marock Lane, - , Vacoas, Mauritius', '57841266, 6828010', 'bparker@intnet.mu', NULL, 'LENOVO 550-30 x 5', 'Re')

302 commit;

303 select * from BCM_ORDER_MGT

304

305

306

Results

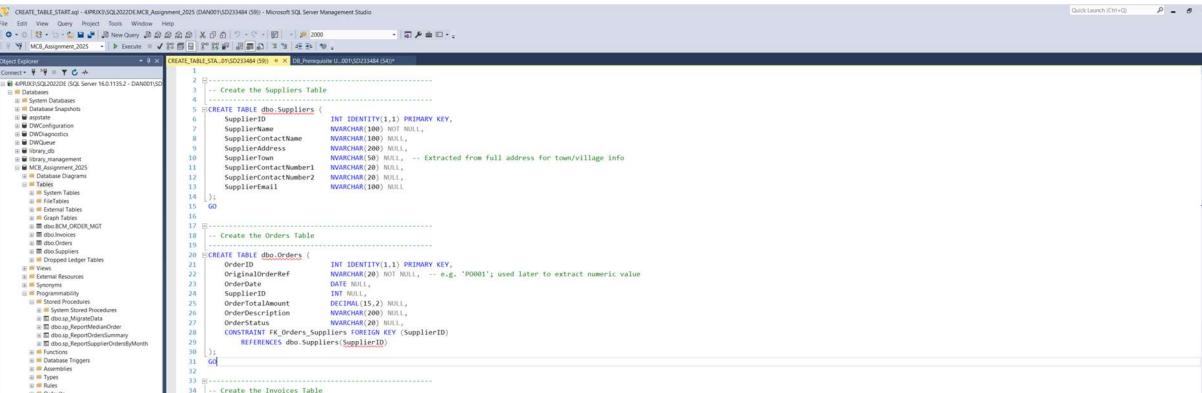
Messages

ORDER_REF	ORDER_DATE	SUPPLIER_NAME	SUPP_CONTACT_NAME	SUPP_ADDRESS	SUPP_CONTACT_NUMBER	SUPP_EMAIL	ORDER_TOTAL_AMOUNT	ORDER_DESCRIPTION	ORDER_STATUS
P_0001	03-JAN-2024	PEGASUS LTD.	Georges Neero	40, Ferney Way, Mission Road, Copeipe, Mauritius	461 5841, 57412545	geoneo@pegasus.mu	10,000	Vehicle Spare parts	Closed
P_0001-1	03-JAN-2024	PEGASUS LTD.	Georges Neero	40, Ferney Way, Mission Road, Copeipe, Mauritius	461 5841, 57412545	geoneo@pegasus.mu	NULL	Back lights	Received
P_0002	03-JAN-2024	MOTTOWAY CORP.	Georges Neero	40, Ferney Way, Mission Road, Copeipe, Mauritius	461 5841, 57412545	geoneo@pegasus.mu	NULL	Spark plug	Received
P_0002-1	10-JAN-2024	MOTTOWAY CORP.	Stevens Seannah	B312, Cte le Cure, Jean XXII Road, Port Louis, Ma	57841266, 62028010	stesene@motoway.com	750000	Purchase of Car	Open
P_0003	10-JAN-2024	MOTTOWAY CORP.	Stevens Seannah	B312, Cte le Cure, Jean XXII Road, Port Louis, Ma	57841266, 62028010	stesene@motoway.com	57342613	Purchase of Car Model X	Received
P_0003-1	24-JAN-2024	DIGISAY CO LTD.	Berry Parker	68, Marock Lane, - , Vacoas, Mauritius	57841266, 62028010	bparker@intnet.mu	57300	Computer screens	Closed
P_0003-1-1	24-JAN-2024	DIGISAY CO LTD.	Berry Parker	68, Marock Lane, - , Vacoas, Mauritius	57841266, 62028010	bparker@intnet.mu	NULL	Screens 22"	Received
P_0003-2	24-JAN-2024	DIGISAY CO LTD.	Berry Parker	68, Marock Lane, - , Vacoas, Mauritius	57841266, 62028010	bparker@intnet.mu	NULL	Screens 35"	Received
P_0003-3	24-JAN-2024	DIGISAY CO LTD.	Berry Parker	68, Marock Lane, - , Vacoas, Mauritius	57841266, 62028010	bparker@intnet.mu	NULL	Screens 15"	Received
P_0001-3	03-JAN-2024	PEGASUS LTD.	Georges Neero	40, Ferney Way, Mission Road, Copeipe, Mauritius	461 5841, 57412545	geoneo@pegasus.mu	NULL	Fuel filter	Received
P_0004	07-FEB-2024	LAMBONI STATION	Frederic Pey	9, Lamu Building, Stacey Street, Camp Hill, Pample	52557432	manastu@gmail.com	6800	Purchase of Stationeries	Closed
P_0004-1	07-FEB-2024	LAMBONI STATION	Frederic Pey	9, Lamu Building, Stacey Street, Camp Hill, Pample	52557432	manastu@gmail.com	2,000	Pen Parker blue	Received
P_0004-2	07-FEB-2024	LAMBONI STATION	Frederic Pey	9, Lamu Building, Stacey Street, Camp Hill, Pample	52557432	manastu@gmail.com	2,000	Pen HB boxes	Received
P_0005	10-JAN-2024	PEGASUS LTD.	Georges Neero	B312, Cte le Cure, Jean XXII Road, Port Louis, Ma	57841266, 62028010	stesene@motoway.com	NULL	Archie	Received
P_0005-1	10-JAN-2024	MOTTOWAY CORP.	Stevens Seannah	B312, Cte le Cure, Jean XXII Road, Port Louis, Ma	57841266, 62028010	stesene@motoway.com	NULL	Purchase of Car Model X	Received

Query executed successfully.

2. Based on the data provided implement a database schema with necessary tables, columns, data types and constraints. Create your tables in the database with appropriate naming convention. The tables should be appropriately normalized.

For the following questions, you are expected to create a database package with appropriate functions or procedures. All the database objects that you need to create shall be available on your working database environment and properly compiled.



The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The Object Explorer on the left lists the database structure for 'AdventureworksLT'. A query window on the right contains the following T-SQL script:

```
CREATE TABLE [dbo].[Suppliers] (
    SupplierID INT IDENTITY(1,1) PRIMARY KEY,
    SupplierName NVARCHAR(100) NOT NULL,
    ContactName NVARCHAR(100) NOT NULL,
    SupplierAddress NVARCHAR(200) NULL,
    SupplierTown NVARCHAR(50) NULL, -- Extracted from full address for town/village info
    SupplierCountry NVARCHAR(50) NULL,
    SupplierNumber1 NVARCHAR(20) NULL,
    SupplierContactNumber1 NVARCHAR(20) NULL,
    SupplierEmail NVARCHAR(100) NULL
);

CREATE TABLE [dbo].[Orders] (
    OrderID INT IDENTITY(1,1) PRIMARY KEY,
    OriginalOrderRef NVARCHAR(20) NOT NULL, -- e.g. 'P0001'; used later to extract numeric value
    OrderDate DATE NULL,
    OrderTotalAmount DECIMAL(15,2) NULL,
    OrderDescription NVARCHAR(200) NULL,
    OrderStatus NVARCHAR(50) NULL,
    CONSTRAINT FK_Orders_Suppliers FOREIGN KEY (SupplierID)
        REFERENCES dbo.Suppliers(SupplierID)
);

CREATE TABLE [dbo].[Invoices] (
    InvoiceID INT IDENTITY(1,1) PRIMARY KEY,
    OrderID INT NOT NULL, -- Relates to the Order in Orders table
    InvoiceReference NVARCHAR(50) NULL,
    InvoiceDate DATE NULL,
    InvoiceStatus NVARCHAR(20) NULL,
    InvoiceHoldReason NVARCHAR(200) NULL,
    InvoiceComments NVARCHAR(200) NULL,
    InvoiceDescription NVARCHAR(200) NULL,
    CONSTRAINT FK_Invoices_Orders FOREIGN KEY (OrderID)
        REFERENCES dbo.Orders(OrderID)
);

-- Completion message
Completion time: 2020-02-23T15:00:21.2050494+00:00
```

Execute script:

```

CREATE_TABLE_STA_0105D233484 (59) + x DB_Prerequisite U_001\SD233484 (59)
1
2 S
3 -- Create the Suppliers Table
4
5 ECREATE TABLE dbo.Suppliers (
6     SupplierID           INT IDENTITY(1,1) PRIMARY KEY,
7     SupplierName          NVARCHAR(100) NOT NULL,
8     SupplierContactName   NVARCHAR(100) NULL,
9     SupplierAddress        NVARCHAR(100) NULL,
10    SupplierTown          NVARCHAR(50) NULL, -- Extracted from full address for town/village info
11    SupplierContactNumber1 NVARCHAR(20) NULL,
12    SupplierContactNumber2 NVARCHAR(20) NULL,
13    SupplierEmail          NVARCHAR(100) NULL
14 );
15 GO
16
17 S
18 -- Create the Orders Table
19
20 ECREATE TABLE dbo.Orders (
21     OrderID               INT IDENTITY(1,1) PRIMARY KEY,
22     OriginalOrderRef      NVARCHAR(100) NOT NULL, -- e.g. "P0001"; used later to extract numeric value
23     OrderDate              DATE NULL,
24     SupplierID             INT NULL,
25     OrderTotalAmount       DECIMAL(15,2) NULL,
26     OrderDescription       NVARCHAR(200) NULL,
27     OrderStatus             NVARCHAR(20) NULL,
28     CONSTRAINT FK_Orders_Suppliers FOREIGN KEY (SupplierID)
29         REFERENCES dbo.Suppliers(SupplierID)
30 );
31 GO
32
33 S
34 -- Create the Invoices Table
35
36 ECREATE TABLE dbo.Invoices (
37     InvoiceID              INT IDENTITY(1,1) PRIMARY KEY,
38     OrderID                INT NOT NULL, -- Relates to the Order in Orders table
39     InvoiceReference        NVARCHAR(50) NULL,
40     InvoiceDate             DATE NULL,
41     InvoiceReason           NVARCHAR(200) NULL,
42     InvoiceAmount            DECIMAL(15,2) NULL,
43     InvoiceStatus            NVARCHAR(20) NULL,
44     CONSTRAINT FK_Invoices_Orders FOREIGN KEY (OrderID)
45         REFERENCES dbo.Orders(OrderID)
46 );
47 GO
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```

Messages
Command completed successfully.
Completion time: 2023-02-23T10:01:21.2050000+00:00

Query executed successfully.

Upon Successfully executed scrip, 3 tables were create dbo.Invoices, dbo.Orders and dbo.Suppliers

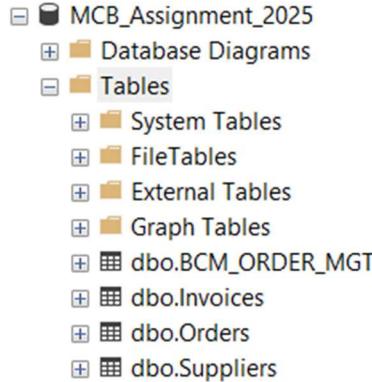
```

CREATE_TABLE_STA_0105D233484 (58) + x DB_Prerequisite U_001\SD233484 (60)*
1
2 S
3
4 ECREATE TABLE dbo.Orders (
5     OrderID               INT NULL,
6     SupplierID             INT NULL,
7     OrderTotalAmount       DECIMAL(15,2) NULL,
8     OrderDescription       NVARCHAR(200) NULL,
9     OrderStatus             NVARCHAR(20) NULL,
10    CONSTRAINT FK_Orders_Suppliers FOREIGN KEY (SupplierID)
11        REFERENCES dbo.Suppliers(SupplierID)
12 );
13 GO
14
15 S
16 -- Create the Invoices Table
17
18 ECREATE TABLE dbo.Invoices (
19     InvoiceID              INT IDENTITY(1,1) PRIMARY KEY,
20     OrderID                INT NOT NULL, -- Relates to the Order in Orders table
21     InvoiceReference        NVARCHAR(50) NULL,
22     InvoiceDate             DATE NULL,
23     InvoiceStatus            NVARCHAR(20) NULL,
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```

Messages
Command completed successfully.
Completion time: 2023-02-23T23:02:38.7272902+04:00

Query executed successfully.

3 Tables created:



3. Develop a SQL procedure to trigger a migration process that will extract information from table "BCM_ORDER_MGT" and load them in tables that you created with proper data format.
- Store the Supplier address such that the Town\Village info can be readily retrieved

```

USE [MCB_Assignment_2025]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE PROCEDURE [dbo].[sp_MigrateData]
AS
BEGIN
    SET NOCOUNT ON;
    -- 1. Insert distinct Suppliers
    -- For each distinct supplier from BCM_ORDER_MGT:
    --   - SupplierTown is extracted as the second last token from the address.
    --   - (Reversing the address, taking the substring between the first two commas in the reversed string, then reversing back.)
    --   - The primary contact number is extracted from the text before the comma.
    --   - It is cleaned by removing periods and returned only if it contains exclusively digits and spaces.
    --   - The secondary contact number is extracted from the text after the comma.
    --   - It is similarly cleaned and returned only if it contains exclusively digits and spaces.
    --   - GROUP BY is used to merge duplicate rows with minor variations.
    INSERT INTO dbo.Suppliers
    (SupplierName, SupplierContactName, SupplierAddress, SupplierTown, SupplierContactNumber1, SupplierContactNumber2, SupplierEmail)
    SELECT
        SUPPLIER_NAME,
        SUP_CONTACT_NAME,
        SUP_ADDRESS,
        LTRIM(RTRIM(
            REVERSE(
                SUBSTRING(
                    REVERSE(SUPP_ADDRESS),
                    CHARINDEX(',', REVERSE(SUPP_ADDRESS)) + 1,
                    CHARINDEX(',', REVERSE(SUPP_ADDRESS)), CHARINDEX(',', REVERSE(SUPP_ADDRESS)) + 1
                ) - CHARINDEX(',', REVERSE(SUPP_ADDRESS)) - 1
            )
        ))
    
```

Executing Stored procedure script

```

SQLQuery2.sql - 4JPRUX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (63)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
New Query Execute 2000 Quick Launch (Ctrl+Q)
Object Explorer MCB_Assignment_2025
SQLQuery2.sql - 4J...001\SD233484 (63)* CREATE_TABLE_STA_01\SD233484 (58) DB_Prerequisite U...001\SD233484 (68)*
103     ORDER_STATUS
104     FROM BCM_ORDER_MGT B
105     WHERE CHARINDEX('-', B.ORDER_REF) > 0;
106
107     --- 3. Insert Invoices (Detail rows - Orders with invoice references)
108     ---
109     -- For each row in BCM_ORDER_MGT with a non-null invoice reference:
110     --   - The corresponding order is determined by matching the base order reference
111     --   (text before any hyphen).
112     --   - InvoiceDate is converted from text to DATE using TRY_CONVERT with style 106.
113     --   - InvoiceAmount is converted to DECIMAL after removing commas.
114
115     INSERT INTO dbo.Invoices
116     (OrderID, InvoiceReference, InvoiceDate, InvoiceStatus, InvoiceHoldReason, InvoiceAmount, InvoiceDescription)
117     SELECT
118         O.OrderID,
119         B.INVOICE_REFERENCE,
120         TRY_CONVERT(DATE, B.INVOICE_DATE, 106),
121         B.INVOICE_STATUS,
122         B.INVOICE_HOLD_REASON,
123         TRY_CONVERT(DECIMAL(10, 2), REPLACE(B.TOTAL_AMOUNT, ',', '')) AS TOTAL_AMOUNT
124
125     FROM BCM_ORDER_MGT B
126     WHERE B.INVOICE_REFERENCE IS NOT NULL;
127
128     END;
129
130     PRINT 'Data migration completed successfully.';
131
132     END;
133
134     GO
135
136
137
138
139
140
141     EXEC sp_MigrateData

```

Messages

Commands completed successfully.

Completion time: 2028-02-23T23:09:59.8024874+04:00

Query executed successfully.

Created a stored procedure to load them in tables in proper data format, sanitized and normalized the data before tabulating in tables

- Programmability
 - Stored Procedures
 - System Stored Procedures
 - dbo.sp_MigrateData

Execute stored procedure to trigger migration process

```

SQLQuery2.sql - 4JPRUX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (63)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
New Query Execute 2000 Quick Launch (Ctrl+Q)
Object Explorer MCB_Assignment_2025
SQLQuery2.sql - 4J...001\SD233484 (63)* CREATE_TABLE_STA_01\SD233484 (58) DB_Prerequisite U...001\SD233484 (68)*
133
134     END;
135
136     PRINT 'Data migration completed successfully.';
137
138     END;
139
140
141     EXEC sp_MigrateData

```

Messages

Warning: Null value is eliminated by an aggregate or other SET operation.
Data migration completed successfully.

Completion time: 2028-02-23T23:13:19.8957120+04:00

Query executed successfully.

Migration of records in the tables below

- MCB_Assignment_2025
- + □ Database Diagrams
- + □ Tables
 - + □ System Tables
 - + □ FileTables
 - + □ External Tables
 - + □ Graph Tables
 - + □ dbo.BCM_ORDER_MGT
 - + □ dbo.Invoices
 - + □ dbo.Orders
 - + □ dbo.Suppliers

Dbo.Invoices data:

SQLEXP04 - APR0X3-SQL2020DE-MCS-Assigment_2025 (DAN001\00233484 (82)) - Microsoft SQL Server Management Studio

Object Explorer Results 139 rows Message

Object Explorer Results 139 rows Message

dbo.Invoices

139 rows

InvoiceID	CustomerID	OrderNumber	InvoiceDate	InvoiceDueDate	InvoicePaidDate	InvoiceAmount	InvoiceDescription
1	1	1	2024-02-01	Paid	M.A.L.	22000.00	Purchase of screen
2	2	2	2024-02-01	Paid	M.A.L.	3000.00	Purchase of screen
3	3	3	2024-02-01	Paid	M.A.L.	800.00	Purchase of vehicle spare parts
4	4	4	2024-02-01	Paid	M.A.L.	2000.00	Payment for pen
5	5	5	2024-02-01	Paid	M.A.L.	1000.00	Payment for vehicle spare parts
6	6	6	2024-02-01	Paid	M.A.L.	800.00	Part payment for vehicle spare parts
7	7	7	2024-02-01	Paid	M.A.L.	3000.00	Part payment for vehicle spare parts
8	8	8	2024-02-01	Paid	M.A.L.	800.00	Part payment for vehicle spare parts
9	9	9	2024-02-01	Paid	M.A.L.	3000.00	Part payment for vehicle spare parts
10	10	10	2024-02-01	Paid	M.A.L.	800.00	Part payment for vehicle spare parts
11	11	11	2024-02-01	Paid	M.A.L.	3000.00	Part payment for vehicle spare parts
12	12	12	2024-02-01	Pending	M.A.L.	3000.00	Part payment for purchase of car
13	13	13	2024-02-01	Pending	M.A.L.	3000.00	Part payment for purchase of car
14	14	14	2024-02-01	Pending	M.A.L.	24000.00	Final payment for purchase of car
15	15	15	2024-02-01	Pending	M.A.L.	24000.00	Final payment for purchase of car
16	16	16	2024-02-01	Pending	M.A.L.	800.00	Part payment for screen
17	17	17	2024-02-01	Pending	M.A.L.	800.00	Part payment for screen
18	18	18	2024-02-01	Pending	M.A.L.	3000.00	Final payment for vehicle spare parts
19	19	19	2024-02-01	Pending	M.A.L.	3000.00	Final payment for vehicle spare parts
20	20	20	2024-02-01	Pending	M.A.L.	3000.00	Final payment for vehicle spare parts
21	21	21	2024-02-01	Pending	M.A.L.	24000.00	Final delivery
22	22	22	2024-02-01	Pending	M.A.L.	15000.00	Computer sales invoice - 1
23	23	23	2024-02-01	Pending	M.A.L.	15000.00	Computer sales invoice - 1
24	24	24	2024-02-01	Pending	M.A.L.	22000.00	Secure wallet
25	25	25	2024-02-01	Pending	M.A.L.	17000.00	Electronic wave parts - Inv 1
26	26	26	2024-02-01	Pending	M.A.L.	17000.00	Electronic wave parts - Inv 1
27	27	27	2024-02-01	Pending	M.A.L.	17000.00	Electronic wave parts - Inv 1
28	28	28	2024-02-01	Pending	M.A.L.	18000.00	Vehicle spare parts - Part 2
29	29	29	2024-02-01	Pending	M.A.L.	18000.00	Vehicle spare parts - Part 2
30	30	30	2024-02-01	Pending	M.A.L.	3200.00	Stationware
31	31	31	2024-02-01	Pending	M.A.L.	3200.00	Stationware
32	32	32	2024-02-01	Pending	M.A.L.	23000.00	Computer sales invoice - 2
33	33	33	2024-02-01	Pending	M.A.L.	23000.00	Computer sales invoice - 2
34	34	34	2024-02-01	Pending	M.A.L.	25400.00	Third delivery
35	35	35	2024-02-01	Pending	M.A.L.	3400.00	Vehicle spare parts - Part 1
36	36	36	2024-02-01	Pending	M.A.L.	6900.00	Vehicle wave parts - Part 2
37	37	37	2024-02-01	Pending	M.A.L.	6900.00	Vehicle wave parts - Part 2
38	38	38	2024-02-01	Pending	M.A.L.	37000.00	Vehicle wave parts - Part 1
39	39	39	2024-02-01	Pending	M.A.L.	37000.00	Vehicle wave parts - Part 1
40	40	40	2024-02-01	Pending	M.A.L.	28000.00	Vehicle spare parts - Part 2
41	41	41	2024-02-01	Pending	M.A.L.	28000.00	Vehicle spare parts - Part 2
42	42	42	2024-02-01	Pending	M.A.L.	5800.00	Vehicle spare parts - Part 2
43	43	43	2024-02-01	Pending	M.A.L.	5800.00	Vehicle spare parts - Part 2
44	44	44	2024-02-01	Pending	M.A.L.	47000.00	Vehicle spare parts - Part 2
45	45	45	2024-02-01	Pending	M.A.L.	47000.00	Vehicle spare parts - Part 2
46	46	46	2024-02-01	Pending	M.A.L.	7000.00	Fifth delivery
47	47	47	2024-02-01	Pending	M.A.L.	10000.00	Vehicle wave parts - Part 1
48	48	48	2024-02-01	Pending	M.A.L.	197000.00	Car purchase
49	49	49	2024-02-01	Pending	M.A.L.	197000.00	Car purchase
50	50	50	2024-02-01	Pending	M.A.L.	108125.00	Car purchase
51	51	51	2024-02-01	Pending	M.A.L.	4500.00	Trip to Shoppers
52	52	52	2024-02-01	Pending	M.A.L.	4500.00	Trip to Shoppers
53	53	53	2024-02-01	Pending	M.A.L.	2000.00	Trip to Shoppers
54	54	54	2024-02-01	Pending	M.A.L.	4500.00	Trip to Shoppers
55	55	55	2024-02-01	Pending	M.A.L.	4500.00	Trip to Shoppers
56	56	56	2024-02-01	Pending	M.A.L.	4500.00	Trip to Shoppers
57	57	57	2024-02-01	Pending	M.A.L.	5800.00	Third delivery
58	58	58	2024-02-01	Pending	M.A.L.	5800.00	Invoice payment SW001
59	59	59	2024-02-01	Pending	M.A.L.	10000.00	Invoice payment SW001
60	60	60	2024-02-01	Pending	M.A.L.	10000.00	Invoice payment SW001
61	61	61	2024-02-01	Pending	M.A.L.	13000.00	Invoice payment SW001
62	62	62	2024-02-01	Pending	M.A.L.	17000.00	Invoice payment SW001
63	63	63	2024-02-01	Pending	M.A.L.	4275.00	Invoice payment SW001
64	64	64	2024-02-01	Pending	M.A.L.	10000.00	Invoice payment SW001
65	65	65	2024-02-01	Pending	M.A.L.	10000.00	Invoice payment SW001
66	66	66	2024-02-01	Pending	M.A.L.	10000.00	Invoice payment SW001
67	67	67	2024-02-01	Pending	M.A.L.	10000.00	Invoice payment SW001
68	68	68	2024-02-01	Pending	M.A.L.	10000.00	Invoice payment SW001
69	69	69	2024-02-01	Pending	M.A.L.	3650.00	Invoice payment SW001
70	70	70	2024-02-01	Pending	M.A.L.	3650.00	Invoice payment SW001
71	71	71	2024-02-01	Pending	M.A.L.	3650.00	Invoice payment SW001
72	72	72	2024-02-01	Pending	M.A.L.	3650.00	Invoice payment SW001
73	73	73	2024-02-01	Pending	M.A.L.	3650.00	Invoice payment SW001
74	74	74	2024-02-01	Pending	M.A.L.	70000.00	Invoice payment SW001

Query executed successfully.

APR0X3-SQL2020DE (16.0 RTM) - DAN001\00233484 (82) MCB_Assignment_2025 000000 74 rows

Dbo.Orders data:

SQLQuery3.sql - 4JPRJX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (57)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

MCB_Assignment_2025 Execute

Object Explorer

SQLQuery3.sql - 4J...001\SD233484 (57) sp.MigrateData.sq...001\SD233484 (51)*

```

1 /****** Script for SelectTopNRows command from SSMS ******/
2 SELECT TOP (1000) [OrderID]
3      ,[OriginalOrderRef]
4      ,[OrderDate]

```

Results Messages

OrderID	OriginalOrderRef	OrderDate	SupplierID	OrderTotalAmount	OrderDescription	OrderStatus
27	P0006	2024-02-16	10	250000.00	Stationery orders	Open
28	P0006-1	2024-02-16	10	NULL	Packet 1	Received
29	P0007	NULL	9	26700.00	Taxi services fees	Closed
30	P0008	2024-06-05	5	85200.00	Orders of computer spa...	Open
31	P0008-1	2024-06-05	5	NULL	10 HDDs 3TB	Received
32	P0008-2	2024-06-05	5	NULL	10 Motherboard Asus P...	Received
33	P0009	2024-06-18	3	36800.00	Security vests	Open
34	P0009-1	2024-06-18	3	NULL	Security vests for firewa...	Received
35	P0010	2024-07-03	4	182700.00	Electronic spare parts	Closed
36	P0010-1	2024-07-03	4	NULL	Electronic Component ...	Received
37	P0010-1	2024-07-03	4	NULL	Air Conditioner Fan Ca...	Received
38	P0010-2	2024-07-03	4	NULL	Aluminum LED PCB A...	Received
39	P0010-2	2024-07-03	4	NULL	Stater capacitor x 2000	Received
40	P0010-3	NULL	4	NULL	Block connector univer...	Received
41	P0011	NULL	6	43200.00	Purchase of Stationeries	Closed
42	P0011-1	2024-07-06	6	NULL	Staplers Heavy duty x 10	Received
43	P0008-1	2024-06-05	5	NULL	10 HDDs 3TB	Received
44	P0008-2	2024-06-05	5	NULL	10 Motherboard Asus P...	Received
45	P0006-1	2024-02-16	10	NULL	Packet 3	Received
46	P0011-2	2024-07-06	6	NULL	Organizers x 200	Received
47	P0012	2024-08-16	8	265000.00	Vehicle Spare parts	Open
48	P0012-1	2024-08-16	8	NULL	Aluminium evaporator ...	Received
49	P0006-1	2024-02-16	10	NULL	Packet 4	Received
50	P0008-2	2024-06-05	5	NULL	Seagate Barracuda 2T...	Received
51	P0012-1	2024-08-16	8	NULL	Wheels and balancing	Received
52	P0012-2	2024-08-16	8	NULL	Servicing of cars	Received
53	P0012-2	2024-08-16	8	NULL	Dashboard for cards	Received
54	P0012-2	2024-08-16	8	NULL	Rear door + repair	Received
55	P0012-3	2024-08-16	8	NULL	High pressure fuel inj...	Received
56	P0012-4	2024-08-16	8	NULL	Air suspension compre...	Received
57	P0012-5	2024-08-16	8	NULL	Aluminum alloy set x 5	Received
58	P0012-5	2024-08-16	8	NULL	Master brake x 12	Received
59	P0006-1	NULL	10	NULL	Packet 5	Received
60	P0013	2024-08-20	7	5819625.00	Purchase of Cars	Closed
61	P0013-1	NULL	7	NULL	Audi Q5	Received
62	P0013-2	2024-08-20	7	NULL	Audi Q7	Received
63	P0013-3	2024-08-20	7	NULL	Chevrolet Equinox	Received
64	P0013-4	2024-08-20	7	NULL	Hyundai Tucson	Received
65	P0006-1	2024-02-16	10	NULL	Packet 6	Received
66	P0007-1	2024-06-03	9	NULL	Employee journey taxi ...	Received
67	P0007-2	2024-06-03	9	NULL	Employee journey taxi ...	Received
68	P0007-3	2024-06-03	9	NULL	Employee journey taxi ...	Cancelled
69	P0007-4	2024-06-03	9	NULL	Employee journey taxi ...	Received
70	P0007-5	2024-06-03	9	NULL	Employee journey taxi ...	Received
71	P0006-1	2024-02-16	10	NULL	Packet 2	Received
72	P0014	2024-09-15	1	400120.00	Purchases of Digital eq...	Open
73	P0014-1	2024-09-15	1	NULL	2.5 EXTERNAL TOSHIB...	Received
74	P0014-2	NULL	1	NULL	2.5 EXTERNAL TOSHIB...	Received
75	P0014-3	2024-09-15	1	NULL	NOTEBOOK SATA HD...	Received
76	P0014-4	2024-09-15	1	NULL	3TB SATA HARD DISK ...	Received
77	P0014-5	2024-09-15	1	NULL	WESTERN DIGITAL US...	Received
78	P0014-1	2024-09-15	1	NULL	FAN UNIT x 20	Cancelled
79	P0014-1	2024-09-15	1	NULL	EPSON EB-S31 3LCD ...	Received
80	P0014-2	NULL	1	NULL	VIEWSONIC PJ5155 ...	Received
81	P0014-2	2024-09-15	1	NULL	COOLER MASTER SEL...	Received
82	P0014-3	2024-09-15	1	NULL	GENIUS MEDIA POINT...	Received
83	P0014-3	2024-09-15	1	NULL	USB WIRELESS <>T>...	Received
84	P0014-3	2024-09-15	1	NULL	ASUS H110M-A (INTEL...	Received
85	P0014-3	2024-09-15	1	NULL	ASUS B150M-K DDR4 ...	Received
86	P0014-4	2024-09-15	1	NULL	ASUS H81M-A (INTEL ...	Received
87	P0014-4	2024-09-15	1	NULL	HP ADVANTAGE 4535...	Received
88	P0014-4	2024-09-15	1	NULL	HP M277DW WIFI COL...	Received
89	P0014-5	2024-09-15	1	NULL	HP OFFICEJET PRO 6...	Received
90	P0014-5	2024-09-15	1	NULL	EPSON LQ310 DOT M...	Received
91	P0014-5	2024-09-15	1	NULL	LENOVO B50-30 x 5	Received
92	P0014-5	NULL	1	NULL	DELL N3543 CORE i5 ...	Cancelled

Query executed successfully.

Dbo.Suppliers data:

SQLQuery5.sql - 4JPRUX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (58)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

Object Explorer SQLQuery5.sql - 4J...001\SD233484 (58) SQLQuery4.sql - 4J...001\SD233484 (62) SQLQuery3.sql - 4J...001\SD233484 (57) sp_MigrateData.sql...001\SD233484 (51)*

Connect • ? 🔍 ⚡

MCB_Assignment_2025

Object Explorer

SQLQuery5.sql - 4J...001\SD233484 (58)

```

1 /***** Script for SelectTopNRows command from SSMS *****/
2 SELECT TOP (1000) [SupplierID]
3     ,[SupplierName]
4     ,[SupplierContactName]
5     ,[SupplierAddress]
6     ,[SupplierTown]
7     ,[SupplierContactNumber1]
8     ,[SupplierContactNumber2]
9     ,[SupplierEmail]
10    FROM [MCB_Assignment_2025].[dbo].[Suppliers]

```

SQLQuery4.sql - 4J...001\SD233484 (62)

SQLQuery3.sql - 4J...001\SD233484 (57)

sp_MigrateData.sql...001\SD233484 (51)*

Results Messages

SupplierID	SupplierName	SupplierContactName	SupplierAddress	SupplierTown	SupplierContactNumber1	SupplierContactNumber2	SupplierEmail
1	DIGISAY CO. LTD.	Berry Parker	68, Marock Lane, Vacoas, Mauritius	Vacoas	57841266	6028010	barker@intnet.mu
2	EMTELLO LTD	Megan Hemby	998, Bistro Street, Marione, Pamplemousses, Ma...	Pamplemousses	2420641	57841698	mhemby@gmail.com
3	FIRELAND BROS	Amelia Bridney	- Main court bldg, Nerring road, Moka, Mauritius	Moka	5948 0015	NULL	abridney@gmail.com
4	FOXY ELECTRONICS	Rddy Floyd	C47, Green Street, Savanne, Mauritius	Savanne	5284 5412	NULL	foxelect@yahoo.fr
5	JINFO COMPUTERS	Jordan Liu Min	93, Bardeau lane, Port Louis, Mauritius	Port Louis	58412556	2195412	contactu@jinfocomputers.com
6	LAMBO STATIONERY	Frederick Ley	9, Lemu Building, Stacy Street, Beau Hill, Pample...	Pamplemousses	52841255	NULL	manustat@gmail.com
7	MOTOTOWN CORP	Seanneh Seannah	B32, Cte la Cure, Avenue XXII Rct, Port Louis, Ma...	Port Louis	5794 2513	NULL	seanneh@mototway.com
8	PEGAUS LTD	Georges Neeroo	40, Ferney Way, Mission Road, Curepipe, Mauritius	Curepipe	461 5541	57412545	george@pegaus.mu
9	SAFEDEST TAXI SERVICES	Steve Narismulla	- Le clezio street, Barbey wood, Highlands, Mauritius	Highlands	5874 1002	2174512	steve.nar@safedest.mu
10	STUFFIE STATIONERY	Zenith Belall	67, Batoe Route, General Street, Vacoas, Mauritius	Vacoas	6547416	NULL	info@stat.com

4. The owner wishes to have a report displaying a summary of Orders with their corresponding list of distinct invoices and their total amount grouped by the Supplier Region. The report shall contain the details as per table below ordered by descending Order Total Amount on top region-wise. Implement a Stored Procedure or Function to return the required information.

Column Name	Specifications
Region	Town\ Village of Supplier.

Column Name	Specifications
Order Reference	Exclude prefix PO and return only numeric value, e.g. PO001 shall return value 1.
Order Period	Period based on <i>Order Date</i> . Example of expected format (YYYY-DD) "2024-01".
Supplier Name	First character in each word to uppercase and the rest to lowercase.
Order Total Amount	Format "99,999,990.00".
Order Status	As per record.
Invoice Reference	As per record.
Invoice Total Amount	Format "99,999,990.00".
Action	Return the following value based on the invoice statuses. If all invoice statuses are Paid, display "No Action". If any of the invoice statuses is Pending, display "To follow up". If any of the invoice Statuses is Blank, display "To verify".

Created a function for supplier name to adhere expected outcome for upper case and lower case character

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left lists databases, tables, and other objects under the 'MCB_Assignment_2025' database. The central pane displays a script for a user-defined function named 'fn_ProperCase'. The script uses a temporary table #TempTable to store intermediate results and processes the input string to convert it to proper case. The code includes comments explaining the purpose and steps of the function.

```
fn_ProperCase.sql - 4PRJX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (71)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer
Connect > MCB.Assignment_2025 Execute New Query
4PRJX3\SQL2022DE (SQL Server 16.0.1135.2 - DAN001)
  Databases
    System Databases
    Database Snapshots
    aspstate
    DWConfiguration
    DWdiagnostics
    DWQueue
    library_db
    library_management
  MCB.Assignment_2025
    Database Diagrams
    Tables
      System Tables
      FileTables
      External Tables
      Graph Tables
      dbo.BCM_ORDER_MGT
      dbo.Invoices
      dbo.Orders
      dbo.Suppliers
      Dropped Ledger Tables
    Views
    External Resources
    Synonyms
    Programmability
      Stored Procedures
        System Stored Procedures
        dbo.sp_MigrateData
      Functions
      Database Triggers
      Assemblies
      Types
      Rules
      Default
fn_ProperCase.sql...001\SD233484 (71) <--> SQLQuery6.sql - 4...001\SD233484 (70) sp_ReportOrders_S...01\SD233484 (65)* CREATE_TABLE_STA...01\SD233484 (58)
1 USE [MCB_Assignment_2025]
2 GO
3 /****** Object: UserDefinedFunction [dbo].[fn_ProperCase] Script Date: 23/02/2025 22:45:52 *****/
4 SET ANSI_NULLS ON
5 GO
6 SET QUOTED_IDENTIFIER ON
7 GO
8
9 CREATE FUNCTION [dbo].[fn_ProperCase] (@str NVARCHAR(4000))
10 RETURNS NVARCHAR(4000)
11 AS
12 BEGIN
13
14  -- Function: fn_ProperCase
15  --
16  -- Purpose:
17  --   Converts the input string to proper case.
18
19  -- Process:
20  --   1. Converts the entire string to lowercase.
21  --   2. Capitalizes the first character.
22  --   3. Iterates through the string and capitalizes any character that follows a space.
23
24  DECLARE @result NVARCHAR(4000);
25
26
27  -- Step 1: Convert the entire string to lowercase.
28
29  SET @result = LOWER(@str);
30
31
32  -- Step 2: Capitalize the first character of the string.
33
34  SET @result = STUFF(@result, 1, 1, UPPER(SUBSTRING(@result, 1, 1)));
35
36
37  -- Step 3: Loop through the string starting from the second character.
```

Executed Function created successfully

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the file is 'fn_ProperCase.sql - 4\PRJX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (71))' and it's a Microsoft SQL Server Management Studio window.

The Object Explorer pane on the left shows the database structure, including databases like '4\PRJX3\SQL2022DE', 'MCB_Assignment_2025', and various tables and stored procedures.

The main results pane displays the code for the function 'fn_ProperCase'. The code uses three steps to process a string: 1. Converts the entire string to lowercase, 2. Capitalizes the first character, and 3. Iterates through the string and capitalizes any character that follows a space. The code includes comments explaining each step.

Messages pane: 'Commands completed successfully.'

Completion time: 2025-02-23T21:20:25.3218212+04:00

Status bar: 'Query executed successfully.' and '4\PRJX3\SQL2022DE (16.0 RTM) DAN001\SD233484 (71) MCB_Assignment_2025 00:00:00 0 rows'

Created stored procedure 'sp_ReportOrdersSummary' to get expected outcomes

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the file is 'sp_ReportOrdersSummary.sql - 4\PRJX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (54))' and it's a Microsoft SQL Server Management Studio window.

The Object Explorer pane on the left shows the database structure, including databases like '4\PRJX3\SQL2022DE', 'MCB_Assignment_2025', and various tables and stored procedures.

The main results pane displays the T-SQL code for the stored procedure 'sp_ReportOrdersSummary'. The code starts by setting ANSI_NULLS and QUOTED_IDENTIFIER, then creates the stored procedure. It begins with a comment block for Step 1: Extract Orders Data, which uses a common table expression (CTE) named 'OrderSummary' to select data from 'dbo.Orders' and 'dbo.Suppliers'. It then moves to Step 2: Extract Invoice Data and Aggregate, which uses another CTE named 'InvoiceSummary' to select data from 'dbo.Invoices' and aggregate it using STRING_AGG.

Status bar: 'Connected. (1/1)' and '4\PRJX3\SQL2022DE (16.0 RTM) DAN001\SD233484 (54) MCB_Assignment_2025 00:00:00 0 rows'

Executed Stored Procedure Successfully:

sp_ReportOrdersSummary.sql - 4JPRUX3\SQL2022DE\MCB_Assignment_2025 (DAN001\SD233484 (54)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

Object Explorer

Connect ▾

- External Tables
- Graph Tables
- dbo.BCM_ORDER_MGT
- dbo.Invoices
- dbo.Orders
- dbo.Suppliers
 - Dropped Ledger Tables
- Views
- External Resources
- Synonyms
- Programmability
 - Stored Procedures
 - System Stored Procedures
 - dbo.sp_MigrateData
 - Functions
 - Database Triggers
 - Assemblies
 - Types
 - Rules
 - Defaults
 - Plan Guides
 - Sequences
 - Query Store
 - Service Broker
 - Storage
 - Security
- PrintConsole
- SupportConsole
- TRGAUTHentication
- TRGManagement
- TRGMaster
 - Database Diagrams
 - Tables
 - Views
- External Resources

10 BEGIN
11 SET NOCOUNT ON;
12
13 -- Step 1: Extract Orders Data
14 WITH OrderSummary AS (
15 SELECT
16 S.SupplierTown AS Region,
17 TRY_CAST(STUFF(O.OriginalOrderRef, 1, 2, '') AS INT) AS OrderReference,
18 FORMAT(O.OrderDate, 'yyyy-MM') AS OrderPeriod,
19 O.OrderTotalAmount,
20 O.OrderStatus,
21 O.OrderID,
22 S.SupplierName
23 FROM dbo.Orders O
24 JOIN dbo.Suppliers S ON O.SupplierID = S.SupplierID
120 %

Messages

Commands completed successfully.

Completion time: 2025-02-25T10:52:49.7436439+04:00

120 %

Query executed successfully.

4JPRUX3\SQL2022DE (16.0 RTM) DAN001\SD233484 (54) MCB_Assignment_2025 00:00:00 0 rows

Stored procedure was created successfully



Executed Stored Procedure script Successfully s with their corresponding list of distinct invoices and their total amount grouped by the Supplier Region

sp_ReportOrdersSummary.sql - 4JPRUX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (63)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

MCB_Assignment_2025 Execute 2000

Object Explorer fn_ProperCase.sql .001SD233484 (65) sp_ReportSupplier .001SD233484 (64) sp_ReportOrdersSu .01SD233484 (63)* SQLQuery5.sql - 4J...001SD233484 (58)

Connect + C +

External Tables Graph Tables

dbo.BCM_ORDER_MGT

dbo.Invoices

dbo.Orders

dbo.Suppliers

Dropped Ledger Tables

Views

External Resources

Synonyms

Programmability

Stored Procedures

System Stored Procedures

dbmsp_MigrateData

Functions

Table-valued Functions

Scalar-valued Functions

dbo.fn_ProperCase

Aggregate Functions

System Functions

Database Triggers

Assemblies

Types

Rules

Defaults

Guides

Sequences

Query Store

Service Broker

Storage

Security

PrintConsole

SupportConsole

TRGAuthentication

TRGManagement

fn_ProperCase.sql .001SD233484 (65) WHERE ISNULL([InvSummary].[InvoiceReferences], 'N/A') <> 'N/A' ORDER BY OS.Region DESC, OS.OrderTotalAmount DESC;

END;

exec sp_ReportOrdersSummary

119 % Messages

Region	OrderReference	OrderPeriod	SupplierName	OrderTotalAmount	OrderStatus	InvoiceReference	InvoiceTotalAmount	Action
Vaccos	14	2024-09	DIGIBAY CO., LTD.	400,120.00	Open	INV_P0014.1, INV_P0014.2, INV_P0014.3, INV_P0014.4, INV_P0014.5	295,520.00	To follow up
Vaccos	2	2024-09	DIGIBAY CO., LTD.	97,000.00	Closed	INV_P0002.1, INV_P0002.2, INV_P0002.3, INV_P0002.4, INV_P0002.5	97,000.00	No Action
Vaccos	6	2024-02	STUFFIE STATIONERY	260,000.00	Closed	INV_P0006.1, INV_P0006.2, INV_P0006.3, INV_P0006.4, INV_P0006.5	260,000.00	No Action
Saeenee	10	2024-07	FOXFIRE ELECTRONICS	182,700.00	Closed	INV_P0010.1, INV_P0010.2, INV_P0010.3, INV_P0010.4, INV_P0010.5	182,700.00	No Action
Port Louis	13	2024-08	MOTTOWAY CORP	5,819,625.00	Closed	INV_P0013.1, INV_P0013.2, INV_P0013.3, INV_P0013.4, INV_P0013.5	5,819,625.00	No Action
Port Louis	2	2024-01	MOTTOWAY CORP	750,000.00	Open	INV_P0002.1, INV_P0002.2, INV_P0002.3	649,000.00	To follow up
Port Luis	8	2024-06	JINPIX COMPUTERS	85,200.00	Open	INV_P0008.1, INV_P0008.2, INV_P0008.3, INV_P0008.4, INV_P0008.5	85,200.00	No Action
Pamplemousses	5	2024-04	EMTELLO LTD	21,000.00	Closed	INV_P0005.1, INV_P0005.2, INV_P0005.3, INV_P0005.4, INV_P0005.5	21,000.00	To follow up
Moka	9	2024-06	FIREDALE BROS	36,800.00	Open	INV_P0009.1	22,500.00	No Action
Hightlands	7	NULU	SAFEDEST TAXI SERVICE	26,700.00	Closed	INV_P0007.1, INV_P0007.2, INV_P0007.3, INV_P0007.4, INV_P0007.5	17,200.00	No Action
Cuscopeia	12	2024-08	PEGASUS LTD	265,000.00	Open	INV_P0012.1, INV_P0012.2, INV_P0012.3, INV_P0012.4, INV_P0012.5	241,220.00	No Action
Cuscopeia	1	2024-01	PROTECH INC	10,000.00	Closed	INV_P0001.1, INV_P0001.2, INV_P0001.3, INV_P0001.4, INV_P0001.5	10,000.00	No Action
Camp Hill	11	NULU	LAMBON STAT INC	43,200.00	Closed	INV_P0011.1, INV_P0011.2, INV_P0011.3, INV_P0011.4, INV_P0011.5	43,200.00	No Action
Camp Hill	4	2024-02	LAMBON STAT INC	6,800.00	Closed	INV_P0004.1, INV_P0004.2, INV_P0004.3, INV_P0004.4, INV_P0004.5	5,000.00	No Action

Query executed successfully.

5. Return details for the median value of the Order Total Amount from the list. Only one record is expected with the following information. Implement a Stored Procedure or Function to return the required information.

Column Name	Specifications
Order Reference	Exclude prefix PO and return only numeric value, e.g. PO001 shall return value 1.
Order Date	Example of expected format "01-JAN-2024".
Supplier Name	In upper case.
Order Total Amount	Format "99,999,990.00".
Order Status	As per record.
Invoice References	For that specific Order, list all invoice references with the value pipe-delimited (). For example., "INV_PO999.1 INV_PO999.2 INV_PO999.3"

Created stored procedure median to return expected values

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar reads "sp_ReportMedianOrder.sql - 4|PRJX3\SQL2022DE (16.0 RTM) - DANO01\SD233484 (54) - Microsoft SQL Server Management Studio". The "File", "Edit", "View", "Query", "Project", "Tools", "Window", and "Help" menus are visible at the top. A "Quick Launch (Ctrl+Q)" button is on the right. Below the menu bar is a toolbar with icons for New Query, Execute, Refresh, and Save. The "Object Explorer" pane on the left shows the database structure for "MCB_Assignment_2025", including Database Snapshots, Logins, and Tables. The "Tables" node is expanded, showing "System Tables", "FileTables", "External Tables", "Graph Tables", and several "dbo" tables: BOM_ORDER_MGT, BOM_Prices, BOM_Orders, BOM_Suppliers, and BOM_ReportOrdersSummary. The "Views", "External Resources", "Synonyms", "Programmability", and "Assemblies" nodes are also present. The main window displays the script "sp_ReportMedianOrder.sql" with its code. The code defines a stored procedure "sp_ReportMedianOrder" that creates a temporary table "#OrderedOrders" using a Common Table Expression (CTE). This CTE selects order details joined with supplier names, assigns a row number (rn) based on ascending OrderTotalAmount, and calculates the total count of orders (cnt). It then uses the "PERCENTILE_CONT" function to find the median order. The script concludes with a "SELECT" statement that joins the temporary table with the original order reference and supplier information. The status bar at the bottom indicates "99 % Connected. (1/1)" and shows the full path "4|PRJX3\SQL2022DE (16.0 RTM) DANO01\SD233484 (54) MCB_Assignment_2025 00:00:00 0 rows".

```
USE [MCB_Assignment_2025]
GO
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE PROCEDURE [dbo].[sp_ReportMedianOrder]
AS
BEGIN
    SET NOCOUNT ON;
    -- CTE: OrderedOrders
    -- This Common Table Expression (CTE) retrieves order details joined with supplier names.
    -- It assigns a row number (rn) based on ascending OrderTotalAmount and calculates the total
    -- count of orders (cnt) to help determine the median order.
    WITH OrderedOrders AS
    (
        SELECT
            O.OrderID,
            O.OriginalOrderRef,
            O.OrderDate,
            O.OrderTotalAmount,
            O.OrderStatus,
            S.SupplierName
        FROM
            dbo.Orders O
        INNER JOIN
            dbo.Suppliers S ON O.SupplierID = S.SupplierID
    )
    -- Median Order Selection
    SELECT
        O.OriginalOrderRef,
        COUNT(*) OVER () AS cnt
    FROM
        OrderedOrders O
    WHERE
        ROW_NUMBER() OVER (ORDER BY O.OrderTotalAmount) AS rn,
        COUNT(*) OVER () AS cnt
    ORDER BY rn
END
GO
```

Run to Create stored procedure successfully

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer on the left, the database 'MCB_Assignment2025' is selected. In the center pane, a script window titled 'sp_ReportMedianOrder.sql' is open, showing the creation of a stored procedure:

```
CREATE PROCEDURE sp_ReportMedianOrder
AS
BEGIN
    -- Other code...
END
```

Below the script window, the 'Messages' pane shows the command completed successfully with a green checkmark icon.

Return details for the median value of the Order Total Amount from the list

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer on the left, the database 'MCB_Assignment2025' is selected. In the center pane, a script window titled 'sp_ReportMedianOrder.sql' is open, showing the execution of the stored procedure:

```
EXEC sp_ReportMedianOrder
```

Below the script window, the 'Results' pane displays the output of the stored procedure:

OrderReference	OrderDate	SupplierName	OrderTotalAmount	OrderStatus	InvoiceReferences
009	18 Jun 2024	FIRELAND BRO8	36,800.00	Open	INV_P0009.1

The 'Messages' pane at the bottom shows the query executed successfully with a green checkmark icon.

6. List all suppliers with their respective number of orders and total amount ordered from them between the period of 01 January 2024 and 31 August 2024, ordered by number of orders. Output details as per below month-wise. Implement a Stored Procedure or Function to return the required information.

Column Name	Specifications
Month	Format – ‘January 2024’

2



Column Name	Specifications
Supplier Name	As per record.
Supplier Contact Name	As per record.
Supplier Contact No. 1	First contact number formatted as “999-9999” or “5999-9999”.
Supplier Contact No. 2	Second contact number formatted as “999-9999” or “5999-9999”.
Total Orders	Total number of orders.
Order Total Amount	Format “99,999,990.00”.

Created stored procedure to return required information as per the table above

```

File Edit View Query Project Tools Window Help
sp_ReportSupplierOrdersByMonth.sql - 4IPRX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (64)) - Microsoft SQL Server Management Studio
Quick Launch (Ctrl+Q)
Object Explorer
Connect > MCB_Assignment_2025 > Execute > sp_ReportSupplierOrdersByMonth.sql (55) > fn_ProperCase.sql...001\SD233484 (65) > sp_ReportSupplier...001\SD233484 (64) > sp_ReportOrdersSu...01\SD233484 (63)*
40 -- - Total number of orders for the supplier in the month.
41 --
42 --
43 -- OrderTotalAmount:
44 -- - Sum of the order total amounts for the supplier in that month.
45 -- - Formatted to two decimal places.
46 
47 SELECT
48     DATENAME(month, O.OrderDate) + ' ' + CAST(YEAR(O.OrderDate) AS VARCHAR(4)) AS [Month],
49     S.SupplierName,
50     S.SupplierContactName,
51     REPLACE(S.SupplierContactNumber1, ' ', '-') AS SupplierContactNumber1,
52     REPLACE(S.SupplierContactNumber2, ' ', '-') AS SupplierContactNumber2,
53     COUNT(*) AS TotalOrders,
54     FORMAT(SUM(O.OrderTotalAmount), 'N2') AS OrderTotalAmount
55     FROM dbo.Orders O
56     INNER JOIN dbo.Suppliers S ON O.SupplierID = S.SupplierID
57     WHERE O.OrderDate BETWEEN '2024-01-01' AND '2024-08-31'
58     GROUP BY DATENAME(month, O.OrderDate), YEAR(O.OrderDate),
59             S.SupplierName, S.SupplierContactName, S.SupplierContactNumber1, S.SupplierContactNumber2
60     ORDER BY TotalOrders DESC;
61

```

Executed Stored Procedure Successfully

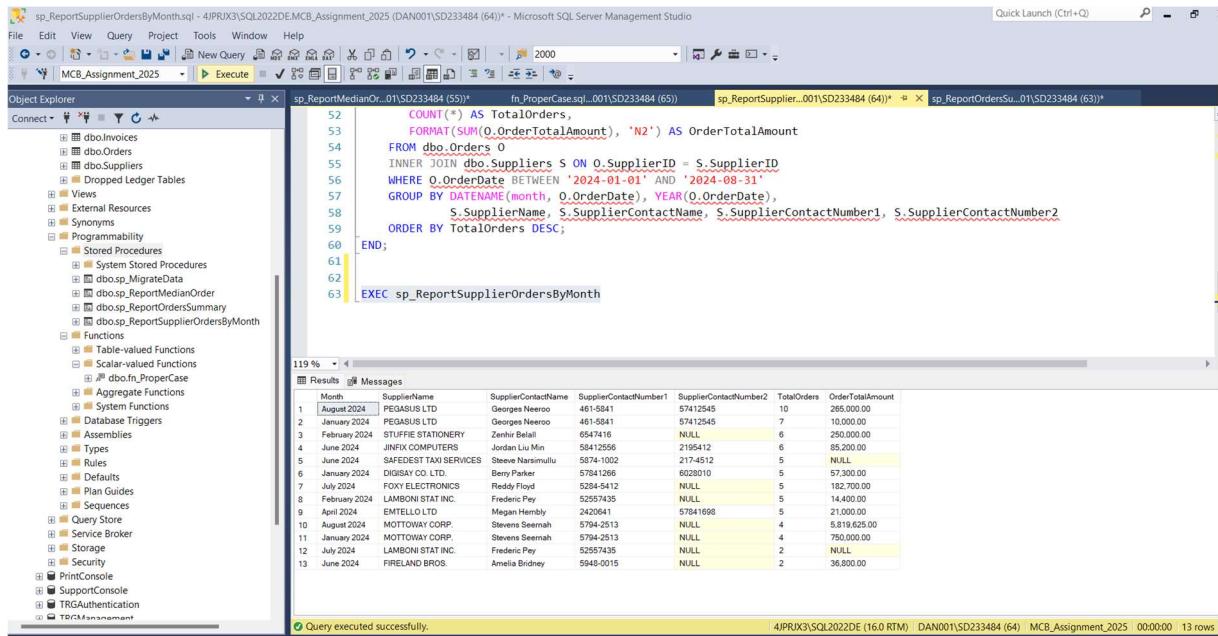
The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to '4PRJX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (64))'. The Object Explorer sidebar shows various database objects like tables, stored procedures, and functions. In the center pane, a query window displays the code for the stored procedure 'sp_ReportSupplierOrdersByMonth'. The code includes comments explaining the logic for calculating contact numbers and total orders. The status bar at the bottom right shows 'Query executed successfully.' and 'Completion time: 2025-02-25T12:42:23.5252860+04:00'.

```
sp_ReportSupplierOrdersByMonth.sql - 4PRJX3\SQL2022DE.MCB_Assignment_2025 (DAN001\SD233484 (64)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
New Query Execute
Object Explorer
Connect > MCB_Assignment_2025 > Execute > sp_ReportSupplierOrdersByMonth.sql (55) > fn_ProperCase.sql_001\SD233484 (65) > sp_ReportSupplier...001\SD233484 (64)* > sp_ReportOrdersSu...01\SD233484 (63)*
31 -- SupplierContactNumber1:
32 --   - The first contact number.
33 --   - Spaces are replaced with hyphens.
34 --
35 -- SupplierContactNumber2:
36 --   - The second contact number.
37 --   - Spaces are replaced with hyphens.
38 --
39 -- TotalOrders:
40 --   - Total number of orders for the supplier in the month.
41 --
42 -- OrderTotalAmount:
43 --   - Sum of the order total amounts for the supplier in that month.
44 --   - Formatted to two decimal places.
45
46 SELECT
119 % Messages
Commands completed successfully.
Completion time: 2025-02-25T12:42:23.5252860+04:00
119 %
4 PRJX3\SQL2022DE (16.0 RTM) DAN001\SD233484 (64) MCB_Assignment_2025 00:00:00 0 rows
Query executed successfully.
```

Stored procedure created successfully



List all suppliers with their respective number of orders and total amount ordered from them between the period of 01 January 2024 and 31 August 2024, ordered by number of orders



```

sp_ReportSupplierOrdersByMonth.sql - 4\PRJX3\SQL2022DE.MCB_Assignment_2025 (DAN001\$D233484 (64)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
File Object Explorer Tools Database Tasks Home New Query Object Explorer
sp_ReportMedianOr..._01\$D233484 (55)* fn_ProperCase.sql_001\$D233484 (65) sp_ReportSupplier..._001\$D233484 (64)* sp_ReportOrdersSu..._01\$D233484 (63)*
sp_ReportSupplierOrdersByMonth.sql
52     COUNT(*) AS TotalOrders,
53     FORMAT(SUM(O.OrderTotalAmount), 'N2') AS OrderTotalAmount
54
55     FROM dbo.Orders O
56     INNER JOIN dbo.Suppliers S ON O.SupplierID = S.SupplierID
57     WHERE O.OrderDate BETWEEN '2024-01-01' AND '2024-08-31'
58     GROUP BY DATENAME(month, O.OrderDate), YEAR(O.OrderDate),
59             S.SupplierName, S.SupplierContactName, S.SupplierContactNumber1, S.SupplierContactNumber2
60     ORDER BY TotalOrders DESC;
61
62 EXEC sp_ReportSupplierOrdersByMonth
63

```

The screenshot shows the Microsoft SQL Server Management Studio interface. The left pane displays the Object Explorer with various database objects like tables, stored procedures, and functions. The right pane shows the results of a query execution. The results grid has columns: Month, SupplierName, SupplierContactName, SupplierContactNumber1, SupplierContactNumber2, TotalOrders, and OrderTotalAmount. The data is as follows:

Month	SupplierName	SupplierContactName	SupplierContactNumber1	SupplierContactNumber2	TotalOrders	OrderTotalAmount
1 August 2024	PEGASUS LTD	Georges Neero	461-5841	57412545	10	265,000.00
2 January 2024	PEGASUS LTD	Georges Neero	461-5841	57412545	7	10,000.00
3 February 2024	ZENITH STATIONERY	Zenith Belal	650-12345	NULL	6	250,000.00
4 June 2024	INFY COMPUTERZ	Jordan Min	58412556	2195412	6	88,300.00
5 June 2024	SAFEDSIT TAXI SERVICES	Steve Nasimulu	58741266	2174512	5	NULL
6 January 2024	DIGISAY CO LTD	Berry Parker	57841266	6028010	5	57,300.00
7 July 2024	FOXY ELECTRONICS	Rddy Floyd	5294-5412	NULL	5	182,700.00
8 February 2024	LAMBONI STAT INC.	Frederic Pey	52557435	NULL	5	14,400.00
9 April 2024	EMTELLO LTD	Megan Hemby	2420641	57841698	5	21,000.00
10 August 2024	MOTTOWAY CORP.	Stevens Seemah	5794-2513	NULL	4	5,819,625.00
11 January 2024	MOTTOWAY CORP.	Stevens Seemah	5794-2513	NULL	4	750,000.00
12 July 2024	LAMBONI STAT INC.	Frederic Pey	52557435	NULL	2	NULL
13 June 2024	FIRELAND BROS.	Amelia Bridney	5948-0015	NULL	2	36,800.00

Query executed successfully.