











































































# 127.0.0.1,13001







































## Group3- EuropeanCarManufacturerSQLServer2019







































|                  |  |
|------------------|--|
| <b>Server</b>    | 127.0.0.1,13001  |
| <b>Author</b>    | StudentCSCI381Erwin  |
| <b>Created</b>   | Wednesday, December 6, 2023 10:51:39 PM  |
| <b>File Path</b> | G:\Group\CSCI381-DataModeling-Group3\FinalProject\Individual Models\RalphGranata\SQLServer2019\DDL-FET-DataInsertion\G3-ECM-RedgateDoc-2023-12-06T22-51-39.pdf |


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## 127.0.0.1,13001

### Databases (1)

- Group3-EuropeanCarManufacturerSQLServer2019

### Server Properties

| Property        | Value                        |
|-----------------|------------------------------|
| Product         | Microsoft SQL Server         |
| Version         | 15.0.4236.7                  |
| Language        | English                      |
| Platform        | NT x64                       |
| Edition         | Developer Edition (64-bit)   |
| Engine Edition  | 3 (Enterprise)               |
| Processors      | 4                            |
| OS Version      | 6.2 (9200)                   |
| Physical Memory | 10225                        |
| Is Clustered    | False                        |
| Root Directory  | C:\                          |
| Collation       | SQL_Latin1_General_CP1_CI_AS |

### Server Settings

| Property                       | Value                  |
|--------------------------------|------------------------|
| Default data file path         | /var/opt/mssql/data/   |
| Default backup file path       | /var/opt/mssql/backup/ |
| Default log file path          | /var/opt/mssql/log/    |
| Recovery Interval (minutes)    | 0                      |
| Default index fill factor      | 0                      |
| Default backup media retention | 0                      |
| Compress Backup                | False                  |

### Advanced Server Settings

| Property                      | Value   |
|-------------------------------|---------|
| Locks                         | 0       |
| Nested triggers enabled       | True    |
| Allow triggers to fire others | True    |
| Default language              | English |



|                                |            |
|--------------------------------|------------|
| Network packet size            | 4096       |
| Default fulltext language LCID | 1033       |
| Two-digit year cutoff          | 2049       |
| Remote login timeout           | 10         |
| Cursor threshold               | -1         |
| Max text replication size      | 65536      |
| Parallelism cost threshold     | 5          |
| Max degree of parallelism      | 0          |
| Min server memory              | 16         |
| Max server memory              | 2147483647 |
| Scan for startup procs         | False      |
| Transform noise words          | False      |
| CLR enabled                    | False      |
| Blocked process threshold      | 0          |
| Filestream access level        | False      |
| Optimize for ad hoc workloads  | False      |
| CLR strict security            | True       |

## User databases

### Databases (1)

---

-  Group3-EuropeanCarManufacturerSQLServer2019

## Group3-EuropeanCarManufacturerSQLServer2019 Database

### Database Properties

| Property                      | Value         |
|-------------------------------|---------------|
| SQL Server Version            | SqlServer2019 |
| Compatibility Level           | SqlServer2019 |
| Last backup time              | 12/07/2023    |
| Last log backup time          | -             |
| Creation date                 | Dec 7 2023    |
| Users                         | 4             |
| Database Encryption Enabled   | False         |
| Database Encryption Algorithm | None          |
| Database size                 | 80.00 MB      |
| Unallocated space             | 2.99 MB       |

### Database Options

| Property                              | Value                        |
|---------------------------------------|------------------------------|
| Compatibility Level                   | 150                          |
| Database collation                    | SQL_Latin1_General_CP1_CI_AS |
| Restrict access                       | MULTI_USER                   |
| Is read-only                          | False                        |
| Auto close                            | False                        |
| Auto shrink                           | False                        |
| Database status                       | ONLINE                       |
| In standby                            | False                        |
| Cleanly shutdown                      | False                        |
| Supplemental logging enabled          | False                        |
| Snapshot isolation state              | OFF                          |
| Read committed snapshot on            | False                        |
| Recovery model                        | FULL                         |
| Page verify option                    | CHECKSUM                     |
| Auto create statistics                | True                         |
| Auto update statistics                | True                         |
| Auto update statistics asynchronously | False                        |
| ANSI NULL default                     | False                        |
| ANSI NULL enabled                     | False                        |
| ANSI padding enabled                  | False                        |

|                                |                                      |
|--------------------------------|--------------------------------------|
| ANSI warnings enabled          | False                                |
| Arithmetic abort enabled       | False                                |
| Concatenating NULL yields NULL | False                                |
| Numeric roundabort enabled     | False                                |
| Quoted Identifier On           | False                                |
| Recursive triggers enabled     | False                                |
| Close cursors on commit        | False                                |
| Local cursors by default       | False                                |
| Fulltext enabled               | True                                 |
| Trustworthy                    | False                                |
| Database chaining              | False                                |
| Forced parameterization        | False                                |
| Master key encrypted by server | False                                |
| Published                      | False                                |
| Subscribed                     | False                                |
| Merge published                | False                                |
| Is distribution database       | False                                |
| Sync with backup               | False                                |
| Service broker GUID            | 5e3a2093-02ef-4271-931c-5a0e1bac5bcb |
| Service broker enabled         | False                                |
| Date correlation               | False                                |
| CDC enabled                    | False                                |
| Encrypted                      | False                                |
| Honor broker priority          | False                                |
| Default language               | English                              |
| Default fulltext language LCID | 1033                                 |
| Nested triggers enabled        | True                                 |
| Transform noise words          | False                                |
| Two-digit year cutoff          | 2049                                 |
| Containment                    | NONE                                 |
| Target recovery time           | 60                                   |
| Database owner                 | sa                                   |

## Files

| Name   | Type | Size     | Maxsize    | Autogrowth | File Name  |
|--|------|----------|------------|------------|--|
| Group3-EuropeanCarManufacturer-SQLServer2019     | Data | 8.00 MB  | unlimited  | 64.00 MB   | /var/opt/mssql/data/Group3-EuropeanCarManufacturer-SQLServer2019.mdf |
| Group3-EuropeanCarManufacturer-SQLServer2019_log | Log  | 72.00 MB | 2048.00 GB | 64.00 MB   | /var/opt/mssql/log/Group3-EuropeanCarManufacturer-                   |

|  |  |  |  |  |                           |
|--|--|--|--|--|---------------------------|
|  |  |  |  |  | SQLServer2019_log.l<br>df |
|--|--|--|--|--|---------------------------|

## Tables

### Objects

| Name  |
|---|
| <b>Audit.HumanResourcesStaffHistory</b><br><i>The audit history table for Staff</i>                                   |
| <b>Audit.LocaleCountryHistory</b><br><i>The audit history table for Country</i>                                       |
| <b>Audit.ProductionManufacturerModelHistory</b><br><i>The audit history table for ManufacturerModel</i>               |
| <b>Audit.ProductionManufacturerVehicleMakeHistory</b><br><i>The audit history table for ManufacturerVehicleMake</i>   |
| <b>Audit.ProductionManufacturerVehicleStockHistory</b><br><i>The audit history table for ManufacturerVehicleStock</i> |
| <b>Audit.SalesCustomerHistory</b><br><i>The audit history table for Customer</i>                                      |
| <b>Audit.SalesSalesCategoryThresholdHistory</b><br><i>The audit history for Sales Category Threshold</i>              |
| <b>Audit.SalesSalesOrderVehicleDetailHistory</b><br><i>The audit history table for SalesOrderVehicleDetail</i>        |
| <b>Audit.SalesSalesOrderVehicleHistory</b><br><i>The audit history table for SalesOrderVehicle</i>                    |
| <b>DbSecurity.UserAuthorization</b><br><i>The authorization of database actions by a user</i>                         |
| <b>HumanResources.Staff</b><br><i>A staff member of the business who sells vehicles to customers</i>                  |
| <b>Locale.Country</b><br><i>A country or territory in the world</i>   |
| <b>Production.ManufacturerModel</b><br><i>The model of a particular vehicle created by the manufacturer</i>           |
| <b>Production.ManufacturerVehicleMake</b><br><i>The company responsible for the production of a vehicle</i>           |
| <b>Production.ManufacturerVehicleStock</b><br><i>A produced physical vehicle that a manufacturer has in stock</i>     |
| <b>Sales.Customer</b><br><i>A person who purchases a vehicle from the business</i>                                    |
| <b>Sales.SalesCategoryThreshold</b><br><i>The classification of vehicle categories based on price range</i>           |
| <b>Sales.SalesOrderVehicle</b><br><i>An order for the purchase of a vehicle</i>                                       |
| <b>Sales.SalesOrderVehicleDetail</b><br><i>The details of a vehicle order</i>   |

## [Audit].[HumanResourcesStaffHistory]



### MS\_Description



The audit history table for Staff

### Properties



| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:37 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type                                      | Max Length (Bytes) | Nullability  | Default |
|---|---|--|--------------------|--------------|---------|
|   | StaffId<br><i>A unique identifier for staff members</i>                                 | [sdKey].[SurrogateKeyInteger]                  | 4                  | NOT NULL     |         |
|   | StaffName<br><i>The full name of a staff member</i>                                     | [sdNameString].[FullNameString]                | 120                | NOT NULL     |         |
|   | Department<br><i>The department name a staff member works in</i>                        | [sdBusinessComponentString].[DepartmentString] | 30                 | NULL allowed |         |
|   | UserAuthorizationId<br><i>A unique identifier for UserAuthorizationIds</i>              | [sdKey].[SurrogateKeyInteger]                  | 4                  | NOT NULL     |         |
|   | SysStartTime<br><i>The start time for a system transaction</i>                          | [sdDateTime].[DateTimeStamp]                   | 8                  | NULL allowed |         |
|   | SysEndTime<br><i>The end time for a system transaction</i>                              | [sdDateTime].[DateTimeStamp]                   | 8                  | NULL allowed |         |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i>        | [sdHashKey].[RowLevelHashKey]                  | 32                 | NULL allowed |         |
|   | ManagerId<br><i>The ID of a staff member that supervises an employee</i>                | [sdKey].[SurrogateKeyInteger]                  | 4                  | NULL allowed |         |
|   | Note<br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]                      | 200                | NULL allowed |         |
|   | IsDeleted<br><i>Flag used to check if an entry has been deleted</i>                     | [sdFlag].[FlagYesNoString]                     | 1                  | NOT NULL     |         |
|  | TransactionNumber<br><i>The transaction number in a series of database transactions</i> | [sdOrdinalNumber].[TransactionNumber]          | 4                  | NOT NULL     |         |

|   |   |                                |    |              |   |
|---|---|--------------------------------|----|--------------|---|
|  | <b>StaffHistoryId</b><br><i>A unique identifier for audit entries in HumanResourcesStaffHistory</i> | [sdKey].[SurrogateKeyInteger]  | 4  | NOT NULL     | (NEXT VALUE FOR [Seque nceId-Insert].[Audit - Human-Resour cesStaff- History_ -Id]) |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                      | [sdHashKey].[RowLevelHash-Key] | 32 | NULL allowed |   |
|   | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>            | [sdFlag].[FlagYesNoString]     | 1  | NOT NULL     |   |
|   | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>                        | [sdDateTime].[Date-Timestamp]  | 8  | NOT NULL     | (sysdat etime())  |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>             | [sdAudit].[DbAction]           | 1  | NOT NULL     |   |

## Indexes

| Key   | Name                              | Key Columns                        | Unique |
|---|-----------------------------------|------------------------------------|--------|
|   | XPKStaffHistory                   | StaffHistoryId                     | True   |
|  | XIE1Human_Resources_Staff_History | StaffId, TransactionNumber<br>DESC |        |

## Check Constraints

| Name   | On Column | Constraint   |
|--|-----------|--|
| CK_Audit_HumanResourcesStaffHistory_DBAction | DBAction  | ([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D') |

## SQL Script

```
CREATE TABLE [Audit].[HumanResourcesStaffHistory]
(
    [StaffId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [StaffName] [sdNameString].[FullNameString] NOT NULL,
    [Department] [sdBusinessComponentString].[DepartmentString] NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [ManagerId] [sdKey].[SurrogateKeyInteger] NULL,
    [Note] [sdLongTextString].[Note] NULL,
    [IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
    [TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
```



```
[StaffHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Audit_Human-ResourcesStaffHistory_Id] DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[Audit_Human-ResourcesStaffHistory_Id]),
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
[AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_Audit_Human-ResourcesStaffHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
[DBAction] [sdAudit].[DbAction] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [Audit].[HumanResourcesStaffHistory] ADD CONSTRAINT [CK_Audit_Human-ResourcesStaffHistory_DBAction] CHECK (([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D'))
GO
ALTER TABLE [Audit].[HumanResourcesStaffHistory] ADD CONSTRAINT [XPKStaffHistory] PRIMARY KEY NONCLUSTERED ([StaffHistoryId]) ON [PRIMARY]
GO
CREATE CLUSTERED INDEX [XIE1Human_Resources_Staff_History] ON [Audit].[HumanResourcesStaffHistory] ([StaffId], [TransactionNumber] DESC) ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The audit history table for Staff', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit transactions', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'AuditDateTimeStamp'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The department name a staff member works in', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'Department'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger should be fired', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has been deleted', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'IsDeleted'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The ID of a staff member that supervises an employee', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'ManagerId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database transaction', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for audit entries
```

```
in HumanResourcesStaffHistory', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaff-
History', 'COLUMN', N'StaffHistoryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for staff
members', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'Staff-
Id'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The full name of a staff member',
'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN', N'StaffName'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN',
N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory', 'COLUMN',
N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory',
'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'HumanResourcesStaffHistory',
'COLUMN', N'UserAuthorizationId'
GO
```

---

## Uses

[sdAudit].[DbAction]  
[sdBusinessComponentString].[DepartmentString]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdNameString].[FullNameString]  
[sdOrdinalNumber].[TransactionNumber]  
Audit

---

## Used By

[Audit].[vwFindUniqueTablePkyHumanResourcesStaff]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]

## [Audit].[LocaleCountryHistory]



### MS\_Description



The audit history table for Country

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:37 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name   | Data Type                               | Max Length (Bytes) | Nullability  | Default   |
|---|--|---|--------------------|--------------|---|
|   | CountryId<br><i>A unique identifier for countries</i>  | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     |   |
|   | CountryISO3<br><i>The ISO3 format of a country</i>   | [sdCountryString-Variant].[CountryISO3] | 6                  | NOT NULL     |   |
|   | CountryName<br><i>The name of the country</i>  | [sdAddressesString].[Country-String]    | 100                | NOT NULL     |   |
|   | CountryISO2<br><i>The ISO2 format of a country</i>   | [sdCountryString-Variant].[CountryISO2] | 4                  | NOT NULL     |   |
|   | SalesRegion<br><i>The name of the sales region a country belongs to</i>                        | [sdAddressesString].[Region-String]     | 40                 | NOT NULL     |   |
|   | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>                    | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     |   |
|   | SysStartTime<br><i>The start time for a system transaction</i>                                 | [sdDateTime].[Date-Timestamp]           | 8                  | NULL allowed |   |
|   | SysEndTime<br><i>The end time for a system transaction</i>                                     | [sdDateTime].[Date-Timestamp]           | 8                  | NULL allowed |   |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i>               | [sdHashKey].[RowLevelHash-Key]          | 32                 | NULL allowed |   |
|  | LocaleCountryHistoryId<br><i>A unique identifier for audit entries in LocaleCountryHistory</i> | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     | (NEXT VALUE FOR [SequenceId-Insert].[Audit - LocaleCountryHistory - |

|   |  |  |     |                 | Id))                |
|---|--|--|-----|-----------------|---------------------|
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL<br>allowed |                     |
|   | <b>IsDeleted</b><br><i>Flag used to check if an entry has been deleted</i>                     | [sdFlag].[FlagYesNoString]             | 1   | NOT<br>NULL     |                     |
|  | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT<br>NULL     |                     |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL<br>allowed |                     |
|   | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT<br>NULL     |                     |
|   | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>                   | [sdDateTime].[Date-Timestamp]          | 8   | NOT<br>NULL     | (sysdat<br>etime()) |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>        | [sdAudit].[DbAction]                   | 1   | NOT<br>NULL     |                     |

## Indexes

| Key   | Name                       | Key Columns                          | Unique |
|---|----------------------------|--------------------------------------|--------|
|   | PK_CountryHistory          | LocaleCountryHistoryId               | True   |
|  | XIE1Locale_Country_History | CountryId, TransactionNumber<br>DESC |        |

## Check Constraints

| Name                                   | On Column | Constraint   |
|--|-----------|--|
| CK_Audit_LocaleCountryHistory_DBAction | DBAction  | ([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D') |

## SQL Script

```
CREATE TABLE [Audit].[LocaleCountryHistory]
(
    [CountryId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [CountryISO3] [sdCountryStringVariant].[CountryISO3] NOT NULL,
    [CountryName] [sdAddressesString].[CountryString] NOT NULL,
    [CountryISO2] [sdCountryStringVariant].[CountryISO2] NOT NULL,
    [SalesRegion] [sdAddressesString].[RegionString] NOT NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [LocaleCountryHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Audit_LocaleCountryHistory_Id] DEFAULT (NEXT VALUE FOR [SequenceIdInsert]).[Audit_LocaleCountryHistory_Id]),
```

```
[Note] [sdLongTextString].[Note] NULL,
[IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
[AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_Audit_Locale-
CountryHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
[DBAction] [sdAudit].[DbAction] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [Audit].[LocaleCountryHistory] ADD CONSTRAINT [CK_Audit_LocaleCountry-
History_DBAction] CHECK (([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D'))
GO
ALTER TABLE [Audit].[LocaleCountryHistory] ADD CONSTRAINT [PK_CountryHistory] PRIMARY
KEY NONCLUSTERED ([LocaleCountryHistoryId]) ON [PRIMARY]
GO
CREATE CLUSTERED INDEX [XIE1Locale_Country_History] ON [Audit].[LocaleCountryHistory]
([CountryId], [TransactionNumber] DESC) ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The audit history table for Country',
'SHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit
transactions', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'Audit-
DateTimeStamp'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for countries',
'SHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'CountryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The ISO2 format of a country',
'SHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'CountryISO2'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The ISO3 format of a country',
'SHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'CountryISO3'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of the country', 'SCHEMA',
N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'CountryName'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that
took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory',
'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN',
N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has
been deleted', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'Is-
Deleted'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for audit entries
in LocaleCountryHistory', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory',
'COLUMN', N'LocaleCountryHistoryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
```

```
key', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'PriorRowLevel-
HashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN',
N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of the sales region a coutry
belongs to', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'Sales-
Region'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'SysEnd-
Time'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN', N'Sys-
StartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN',
N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'LocaleCountryHistory', 'COLUMN',
N'UserAuthorizationId'
GO
```

---

## Uses

[sdAddressesString].[CountryString]  
[sdAddressesString].[RegionString]  
[sdAudit].[DbAction]  
[sdCountryStringVariant].[CountryISO2]  
[sdCountryStringVariant].[CountryISO3]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
Audit

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## Used By

[Audit].[vwFindUniqueTablePkyLocaleCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]

## [Audit].[ProductionManufacturerModelHistory]



### MS\_Description



The audit history table for ManufacturerModel

### Properties



| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:38 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name   | Data Type                               | Max Length (Bytes) | Nullability  | Default  |
|---|--|---|--------------------|--------------|--|
|   | ManufacturerModelId<br><i>A unique identifier for vehicle models</i>   | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     |  |
|   | ManufacturerModelName<br><i>The name of a vehicle model</i>  | [sdVehicleString].[Vehicle-ModelString] | 70                 | NOT NULL     |  |
|   | ManufacturerModelVariant<br><i>The name of a vehicle model variant if applicable</i>                                       | [sdVehicleString].[Vehicle-ModelString] | 70                 | NULL allowed |  |
|   | ManufacturerVehicleMakeId<br><i>A unique identifier for vehicle makes</i>  | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     |  |
|   | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>  | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     |  |
|   | SysStartTime<br><i>The start time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]           | 8                  | NULL allowed |  |
|   | SysEndTime<br><i>The end time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]           | 8                  | NULL allowed |  |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i>   | [sdHashKey].[RowLevelHash-Key]          | 32                 | NULL allowed |  |
|  | ProductionManufacturerModelHistoryId<br><i>A unique identifier for audit entries in ProductionManufacturerModelHistory</i> | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenced-Insert].[Audit - Production-Manufacturer-Model- |

|   |  |  |     |              | History_ - Id)) |
|---|--|--|-----|--------------|-----------------|
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed |                 |
|   | <b>IsDeleted</b><br><i>Flag used to check if an entry has been deleted</i>                     | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     |                 |
|  | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     |                 |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                 |
|   | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     |                 |
|   | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>                   | [sdDateTime].[Date-Timestamp]          | 8   | NOT NULL     | (sysdatetime()) |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>        | [sdAudit].[DbAction]                   | 1   | NOT NULL     |                 |

## Indexes

| Key   | Name                                      | Key Columns                                 | Unique |
|---|---|---|--------|
|   | XPK_ModelHistory                          | ProductionManufacturer-ModelHistoryId       | True   |
|  | XIE1Production_Manufacturer_Model_History | ManufacturerModelId, TransactionNumber DESC |        |

## Check Constraints

| Name  | On Column | Constraint  |
|---|-----------|---|
| CK_ProductionManufacturerVehicleModelHistory_DBAction | DBAction  | (([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D') |

## SQL Script

```
CREATE TABLE [Audit].[ProductionManufacturerModelHistory]
(
    [ManufacturerModelId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [ManufacturerModelName] [sdVehicleString].[VehicleModelString] NOT NULL,
    [ManufacturerModelVariant] [sdVehicleString].[VehicleModelString] NULL,
    [ManufacturerVehicleMakeId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [ProductionManufacturerModelHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL
    CONSTRAINT [DF_Audit_ProductionManufacturerVehicleModelHistory_Id] DEFAULT (NEXT VALUE
    FOR [SequenceIdInsert].[Audit_ProductionManufacturerModelHistory_Id]),
```



```
[Note] [sdLongTextString].[Note] NULL,
[IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
[AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_Production-
ManufacturerVehicleModelHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
[DBAction] [sdAudit].[DbAction] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [Audit].[ProductionManufacturerModelHistory] ADD CONSTRAINT [CK_Production-
ManufacturerVehicleModelHistory_DBAction] CHECK (([DBAction]='U' OR [DBAction]='I' OR
[DBAction]='D'))
GO
ALTER TABLE [Audit].[ProductionManufacturerModelHistory] ADD CONSTRAINT [XPK_Model-
History] PRIMARY KEY NONCLUSTERED ([ProductionManufacturerModelHistoryId]) ON [PRIMARY]
GO
CREATE CLUSTERED INDEX [XIE1Production_Manufacturer_Model_History] ON
[Audit].[ProductionManufacturerModelHistory] ([ManufacturerModelId], [Transaction-
Number] DESC) ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The audit history table for
ManufacturerModel', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory',
NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit
transactions', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory',
'COLUMN', N'AuditDateTimeStamp'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that
took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModel-
History', 'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory',
'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has
been deleted', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory',
'COLUMN', N'IsDeleted'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for vehicle
models', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN',
N'ManufacturerModelId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of a vehicle model',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN',
N'ManufacturerModelName'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of a vehicle model variant if
applicable', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory',
'COLUMN', N'ManufacturerModelVariant'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for vehicle
makes', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN',
N'ManufacturerVehicleMakeId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory',
```

```
'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN', N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for audit entries in ProductionManufacturerModelHistory', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN', N'ProductionManufacturerModelHistoryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of database transactions', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for UserAuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerModelHistory', 'COLUMN', N'UserAuthorizationId'
GO
```

## Uses

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[sdAudit].[DbAction]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdVehicleString].[VehicleModelString]  
Audit

## Used By

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[Audit].[vwFindUniqueTablePkyProductionManufacturerModel]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]

## [Audit].[ProductionManufacturerVehicleMakeHistory]



### MS\_Description



The audit history table for ManufacturerVehicleMake

### Properties



| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:39 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name   | Data Type                              | Max Length (Bytes) | Nullability  | Default   |
|---|--|--|--------------------|--------------|---|
|   | ManufacturerVehicleMakeId<br><i>A unique identifier for vehicle makes</i>  | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     |   |
|   | ManufacturerVehicleMakeName<br><i>The name of a vehicles make</i>  | [sdVehicleString].[VehicleMake-String] | 60                 | NOT NULL     |   |
|   | CountryId<br><i>A unique identifier for countries</i>  | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     |   |
|   | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>  | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     |   |
|   | SysStartTime<br><i>The start time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]          | 8                  | NULL allowed |   |
|   | SysEndTime<br><i>The end time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]          | 8                  | NULL allowed |   |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i>   | [sdHashKey].[RowLevelHash-Key]         | 32                 | NULL allowed |   |
|  | ProductionManufacturerVehicleMake-HistoryId<br><i>A unique identifier for audit entries in ProductionManufacturerVehicleMake-History</i> | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenced-Insert].[Audit - Production-Manufacturer-Vehicle-Make-History - Id]) |

|   |  |   |     |                 |                     |
|---|--|---|-----|-----------------|---------------------|
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]                                 | 200 | NULL<br>allowed |                     |
|   | <b>IsDeleted</b><br><i>Flag used to check if an entry has been deleted</i>                     | [sdFlag].[FlagYesNoString]                                | 1   | NOT<br>NULL     |                     |
|  | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-<br>Number].[TransactionNumber]                | 4   | NOT<br>NULL     |                     |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-<br>Key]                        | 32  | NULL<br>allowed |                     |
|   | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]                                | 1   | NOT<br>NULL     |                     |
|   | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>                   | [sdDateTime].[Date-<br>Timestamp]                         | 8   | NOT<br>NULL     | (sysdat<br>etime()) |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>        | [sdAudit].[DbAction]                                      | 1   | NOT<br>NULL     |                     |
|   | <b>MarketingType</b><br><i>The marketing type of a vehicle make</i>                            | [sdVehicleString].[Vehicle-<br>ManufacturerMarketingType] | 50  | NULL<br>allowed |                     |

## Indexes

| Key   | Name   | Key Columns   | Unique |
|---|--|---|--------|
|   | XPX_MakeHistory                                  | Production-<br>ManufacturerVehicle-<br>MakeHistoryId        | True   |
|  | XIE1Production_Manufacturer_Vehicle_Make_History | ManufacturerVehicle-<br>MakeId, Transaction-<br>Number DESC |        |

## Check Constraints

| Name   | On Column | Constraint   |
|--|-----------|--|
| CK_Audit_ProductionManufacturerVehicleHistory_AuditDateTimeStamp | DBAction  | ((DBAction]='U' OR<br>[DBAction]='I' OR<br>[DBAction]='D') |

## SQL Script

```
CREATE TABLE [Audit].[ProductionManufacturerVehicleMakeHistory]
(
    [ManufacturerVehicleMakeId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [ManufacturerVehicleMakeName] [sdVehicleString].[VehicleMakeString] NOT NULL,
    [CountryId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [ProductionManufacturerVehicleMakeHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL
```

```
CONSTRAINT [DF_Audit_ProductionManufacturerVehicleMakeHistory_Id] DEFAULT (NEXT VALUE
FOR [SequenceIdInsert].[Audit_ProductionManufacturerVehicleMakeHistory_Id]),
[Note] [sdLongTextString].[Note] NULL,
[IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
[AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_Production-
ManufacturerVehicleMakeHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
[DBAction] [sdAudit].[DbAction] NOT NULL,
[MarketingType] [sdVehicleString].[VehicleManufacturerMarketingType] NULL
) ON [PRIMARY]
GO
ALTER TABLE [Audit].[ProductionManufacturerVehicleMakeHistory] ADD CONSTRAINT [CK_-
Audit_ProductionManufacturerVehicleMakeHistory_AuditDateTimeStamp] CHECK (([DBAction]='U'
OR [DBAction]='I' OR [DBAction]='D'))
GO
ALTER TABLE [Audit].[ProductionManufacturerVehicleMakeHistory] ADD CONSTRAINT [XPK_Make-
History] PRIMARY KEY NONCLUSTERED ([ProductionManufacturerVehicleMakeHistoryId]) ON
[PRIMARY]
GO
CREATE CLUSTERED INDEX [XIE1Production_Manufacturer_Vehicle_Make_History] ON
[Audit].[ProductionManufacturerVehicleMakeHistory] ([ManufacturerVehicleMakeId],
[TransactionNumber] DESC) ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The audit history table for
ManufacturerVehicleMake', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicle-
MakeHistory', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit
transactions', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMake-
History', 'COLUMN', N'AuditDateTimeStamp'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for countries',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMakeHistory', 'COLUMN',
N'CountryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that
took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturer-
VehicleMakeHistory', 'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMake-
History', 'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has
been deleted', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMake-
History', 'COLUMN', N'IsDeleted'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for vehicle
makes', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMakeHistory',
'COLUMN', N'ManufacturerVehicleMakeId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of a vehicles make',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMakeHistory', 'COLUMN',
N'ManufacturerVehicleMakeName'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The marketing type of a vehicle make',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMakeHistory', 'COLUMN',
```

```
N'MarketingType'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMakeHistory',
'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
key', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMakeHistory',
'COLUMN', N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for audit entries
in ProductionManufacturerVehicleMakeHistory', 'SCHEMA', N'Audit', 'TABLE', N'Production-
ManufacturerVehicleMakeHistory', 'COLUMN', N'ProductionManufacturerVehicleMakeHistory-
Id'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMake-
History', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMakeHistory',
'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMakeHistory',
'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicle-
MakeHistory', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleMake-
History', 'COLUMN', N'UserAuthorizationId'
GO
```

---

## Uses

[sdAudit].[DbAction]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleManufacturerMarketingType]  
Audit

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## Used By

[Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleMake]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]

## [Audit].[ProductionManufacturerVehicleStockHistory]


### MS\_Description




The audit history table for ManufacturerVehicleStock

### Properties



| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:39 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key  | Name  | Data Type                              | Max Length (Bytes) | Nullability  | Default |
|--|---|--|--------------------|--------------|---------|
|  | ManufacturerVehicleStockId<br><i>A unique identifier for manufacturer vehicle stock</i>                     | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     |         |
|  | StockCode<br><i>The stock code of a vehicle</i>   | [sdShortTextString].[Stock-Code]       | 100                | NOT NULL     |         |
|  | Cost<br><i>The cost of a vehicle from the manufacturer</i>  | [sdNumber].[Currency]                  | 9                  | NOT NULL     |         |
|  | RepairsCharge<br><i>The charge for repairs on a vehicle</i>   | [sdNumber].[Currency]                  | 9                  | NOT NULL     |         |
|  | PartsCharge<br><i>The charge for parts on a vehicle</i>   | [sdNumber].[Currency]                  | 9                  | NOT NULL     |         |
|  | DeliveryCharge<br><i>The charge for delivery of a vehicle</i>   | [sdNumber].[Currency]                  | 9                  | NOT NULL     |         |
|  | IsPremiumRoadHandlingPackage<br><i>A flag to determine if a vehicle has a premium road handling package</i> | [sdFlag].[FlagBit]                     | 4                  | NOT NULL     |         |
|  | VehicleColor<br><i>The color of the vehicle</i>   | [sdVehicleString].[Vehicle-Color]      | 40                 | NOT NULL     |         |
|  | CustomerComment<br><i>A comment added by a customer</i>   | [sdLongTextString].[Customer-Comments] | 400                | NULL allowed |         |
|  | ModelId<br><i>A unique identifier for vehicle models</i>  | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     |         |
|  | PurchaseDate<br><i>The date of purchase</i>   | [sdDate].[DateYYYYMMDD]                | 3                  | NOT NULL     |         |
|  | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>                                 | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     |         |

|   |   |  |     |              |  |
|---|---|--|-----|--------------|--|
|   | <b>SysStartTime</b><br><i>The start time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]          | 8   | NULL allowed |  |
|   | <b>SysEndTime</b><br><i>The end time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]          | 8   | NULL allowed |  |
|   | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i>   | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |  |
|    | <b>ProductionManufacturerVehicleStock-HistoryId</b><br><i>A unique identifier for audit entries in ProductionManufacturerVehicleStock-History</i> | [sdKey].[SurrogateKeyInteger]          | 4   | NOT NULL     | (NEXT VALUE FOR [Sequenced-Insert].[Audit_Production-Manufacturer-Vehicle-Stock-History_Id]) |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>   | [sdLongTextString].[Note]              | 200 | NULL allowed |  |
|   | <b>IsDeleted</b><br><i>Flag used to check if an entry has been deleted</i>  | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     |  |
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i>  | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     |  |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>  | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |  |
|   | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>  | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     |  |
|   | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>  | [sdDateTime].[Date-Timestamp]          | 8   | NOT NULL     | (sysdatetime())  |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>   | [sdAudit].[DbAction]                   | 1   | NOT NULL     |  |

## Indexes

| Key   | Name  | Key Columns  | Unique |
|---|---|--|--------|
|  | XPk_StockHistory                                  | Production-ManufacturerVehicle-StockHistoryId        | True   |
|  | XIE1Production_Manufacturer_Vehicle_Stock_History | ManufacturerVehicle-StockId, Transaction-Number DESC |        |

## Check Constraints

| Name | On Column | Constraint |
|------|-----------|------------|
|------|-----------|------------|



|   |          |  |
|---|----------|--|
| CK_ProductionManufacturerVehicleStockHistory_DBAction | DBAction | ((DBAction)='U' OR (DBAction)='I' OR (DBAction)='D') |
|---|----------|--|

## SQL Script

```
CREATE TABLE [Audit].[ProductionManufacturerVehicleStockHistory]
(
    [ManufacturerVehicleStockId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [StockCode] [sdShortTextString].[StockCode] NOT NULL,
    [Cost] [sdNumber].[Currency] NOT NULL,
    [RepairsCharge] [sdNumber].[Currency] NOT NULL,
    [PartsCharge] [sdNumber].[Currency] NOT NULL,
    [DeliveryCharge] [sdNumber].[Currency] NOT NULL,
    [IsPremiumRoadHandlingPackage] [sdFlag].[FlagBit] NOT NULL,
    [VehicleColor] [sdVehicleString].[VehicleColor] NOT NULL,
    [CustomerComment] [sdLongTextString].[CustomerComments] NULL,
    [ModelId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [PurchaseDate] [sdDate].[DateYYYYMMDD] NOT NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [ProductionManufacturerVehicleStockHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL
    CONSTRAINT [DF_Audit_ProductionManufacturerVehicleStockHistory_Id] DEFAULT (NEXT VALUE
    FOR [SequenceIdInsert].[Audit_ProductionManufacturerVehicleStockHistory_Id]),
    [Note] [sdLongTextString].[Note] NULL,
    [IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
    [TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
    [PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
    [AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_Production-
    ManufacturerVehicleStockHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
    [DBAction] [sdAudit].[DbAction] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [Audit].[ProductionManufacturerVehicleStockHistory] ADD CONSTRAINT [CK_-
ProductionManufacturerVehicleStockHistory_DBAction] CHECK (([DBAction]='U' OR
[DBAction]='I' OR [DBAction]='D'))
GO
ALTER TABLE [Audit].[ProductionManufacturerVehicleStockHistory] ADD CONSTRAINT [XPK_-
StockHistory] PRIMARY KEY NONCLUSTERED ([ProductionManufacturerVehicleStockHistoryId])
ON [PRIMARY]
GO
CREATE CLUSTERED INDEX [XIE1Production_Manufacturer_Vehicle_Stock_History] ON
[Audit].[ProductionManufacturerVehicleStockHistory] ([ManufacturerVehicleStockId],
[TransactionNumber] DESC) ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The audit history table for
ManufacturerVehicleStock', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicle-
StockHistory', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit
transactions', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'AuditDateTimeStamp'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'The cost of a vehicle from the
manufacturer', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'Cost'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A comment added by a customer',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory', 'COLUMN',
N'CustomerComment'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that
took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturer-
VehicleStockHistory', 'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The charge for delivery of a vehicle',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory', 'COLUMN',
N'DeliveryCharge'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has
been deleted', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'IsDeleted'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to determine if a vehicle has a
premium road handling package', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturer-
VehicleStockHistory', 'COLUMN', N'IsPremiumRoadHandlingPackage'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for manufacturer
vehicle stock', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'ManufacturerVehicleStockId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for vehicle
models', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory',
'COLUMN', N'ModelId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The charge for parts on a vehicle',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory', 'COLUMN',
N'PartsCharge'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
key', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory',
'COLUMN', N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for audit entries
in ProductionManufacturerVehicleStockHistory', 'SCHEMA', N'Audit', 'TABLE',
N'ProductionManufacturerVehicleStockHistory', 'COLUMN', N'ProductionManufacturerVehicle-
StockHistoryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The date of purchase', 'SCHEMA',
N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory', 'COLUMN', N'Purchase-
Date'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The charge for repairs on a vehicle',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory', 'COLUMN',
N'RepairsCharge'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The stock code of a vehicle',
'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory', 'COLUMN',
N'StockCode'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicle-
StockHistory', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'ProductionManufacturerVehicleStock-
History', 'COLUMN', N'UserAuthorizationId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The color of the vehicle', 'SCHEMA',
N'Audit', 'TABLE', N'ProductionManufacturerVehicleStockHistory', 'COLUMN', N'Vehicle-
Color'
GO
```

## Uses

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[sdAudit].[DbAction]  
[sdDate].[DateYYYYMMDD]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagBit]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[CustomerComments]  
[sdLongTextString].[Note]  
[sdNumber].[Currency]  
[sdOrdinalNumber].[TransactionNumber]  
[sdShortTextString].[StockCode]  
[sdVehicleString].[VehicleColor]  
Audit

## Used By

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[Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleStock]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]

## [Audit].[SalesCustomerHistory]


### MS\_Description




The audit history table for Customer

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:39 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key  | Name  | Data Type   | Max Length (Bytes) | Nullability  | Default |
|--|---|---|--------------------|--------------|---------|
|  | CustomerId<br><i>A unique identifier for customers</i>                        | [sdKey].[SurrogateKeyInteger]                     | 4                  | NOT NULL     |         |
|  | CustomerName<br><i>The full name of a customer</i>                            | [sdNameString].[Customer-Name]                    | 130                | NOT NULL     |         |
|  | CustomerAddress1<br><i>The street address of a customer</i>                   | [sdAddressesString].[Address-String]              | 120                | NOT NULL     |         |
|  | CustomerAddress2<br><i>The extended street address of a customer</i>          | [sdAddressesString].[Address-String]              | 120                | NULL allowed |         |
|  | CustomerTown<br><i>The town or city a customer resides in</i>                 | [sdAddressesString].[Town-String]                 | 60                 | NOT NULL     |         |
|  | CustomerPostalCode<br><i>The postal code of a customer if applicable</i>      | [sdAddressesString].[Postal-CodeString]           | 18                 | NULL allowed |         |
|  | CountryId<br><i>A unique identifier for countries</i>                         | [sdKey].[SurrogateKeyInteger]                     | 4                  | NOT NULL     |         |
|  | IsCustomerReseller<br><i>Flag to determine if a customer is a reseller</i>    | [sdFlag].[FlagBit]                                | 4                  | NOT NULL     |         |
|  | IsCustomerCreditRisk<br><i>Flag to determine if customer is a credit risk</i> | [sdFlag].[FlagBit]                                | 4                  | NOT NULL     |         |
|  | SpendCapacity<br><i>The spend capacity of a customer</i>                      | [sdMarketingText-String].[CustomerSpend-Capacity] | 30                 | NULL allowed |         |
|  | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>   | [sdKey].[SurrogateKeyInteger]                     | 4                  | NOT NULL     |         |
|  | SysStartTime  | [sdDateTime].[Date-                               | 8                  | NULL         |         |

|   |   |  |     |                 |   |
|---|---|--|-----|-----------------|---|
|   | <i>The start time for a system transaction</i>  | Timestamp]                             |     | allowed         |   |
|   | <b>SysEndTime</b><br><i>The end time for a system transaction</i>                                     | [sdDateTime].[Date-Timestamp]          | 8   | NULL<br>allowed |   |
|   | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i>               | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL<br>allowed |   |
|    | <b>SalesCustomerHistoryId</b><br><i>A unique identifier for audit entries in SalesCustomerHistory</i> | [sdKey].[SurrogateKeyInteger]          | 4   | NOT<br>NULL     | (NEXT<br>VALUE<br>FOR<br>[Seque<br>nceld-<br>Insert].[<br>Audit_<br>-<br>Sales-<br>Custom<br>er-<br>History_<br>-<br>Id]) |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                       | [sdLongTextString].[Note]              | 200 | NULL<br>allowed |   |
|   | <b>IsDeleted</b><br><i>Flag used to check if an entry has been deleted</i>                            | [sdFlag].[FlagYesNoString]             | 1   | NOT<br>NULL     |   |
|    | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i>        | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT<br>NULL     |   |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                        | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL<br>allowed |   |
|   | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>              | [sdFlag].[FlagYesNoString]             | 1   | NOT<br>NULL     |   |
|   | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>                          | [sdDateTime].[Date-Timestamp]          | 8   | NOT<br>NULL     | (sysdat<br>etime())   |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>               | [sdAudit].[DbAction]                   | 1   | NOT<br>NULL     |   |

## Indexes

| Key   | Name                       | Key Columns                           | Unique |
|---|----------------------------|---------------------------------------|--------|
|  | XPX_CustomerHistory        | SalesCustomerHistoryId                | True   |
|  | XIE1Sales_Customer_History | CustomerId, TransactionNumber<br>DESC |        |

## Check Constraints

| Name  | On Column | Constraint  |
|---|-----------|---|
| CK_Audit_SalesSalesCustomerHistory_DBAction | DBAction  | (([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D') |

## SQL Script

```
CREATE TABLE [Audit].[SalesCustomerHistory]
(
    [CustomerId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [CustomerName] [sdNameString].[CustomerName] NOT NULL,
    [CustomerAddress1] [sdAddressesString].[AddressString] NOT NULL,
    [CustomerAddress2] [sdAddressesString].[AddressString] NULL,
    [CustomerTown] [sdAddressesString].[TownString] NOT NULL,
    [CustomerPostalCode] [sdAddressesString].[PostalCodeString] NULL,
    [CountryId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [IsCustomerReseller] [sdFlag].[FlagBit] NOT NULL,
    [IsCustomerCreditRisk] [sdFlag].[FlagBit] NOT NULL,
    [SpendCapacity] [sdMarketingTextString].[CustomerSpendCapacity] NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [SalesCustomerHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Audit_SalesCustomerHistory_Id] DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[Audit_SalesCustomerHistory_Id]),
    [Note] [sdLongTextString].[Note] NULL,
    [IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
    [TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
    [PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
    [AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_Audit_SalesSalesCustomerHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
    [DBAction] [sdAudit].[DbAction] NOT NULL
) ON [PRIMARY]
GO

ALTER TABLE [Audit].[SalesCustomerHistory] ADD CONSTRAINT [CK_Audit_SalesSalesCustomerHistory_DBAction] CHECK ((([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D'))
GO

ALTER TABLE [Audit].[SalesCustomerHistory] ADD CONSTRAINT [XPK_CustomerHistory] PRIMARY KEY NONCLUSTERED ([SalesCustomerHistoryId]) ON [PRIMARY]
GO

CREATE CLUSTERED INDEX [XIE1Sales_Customer_History] ON [Audit].[SalesCustomerHistory] ([CustomerId], [TransactionNumber] DESC) ON [PRIMARY]
GO

EXEC sp_addextendedproperty N'MS_Description', N'The audit history table for Customer', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', NULL, NULL
GO

EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit transactions', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'Audit-DateTimeStamp'
GO

EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for countries', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'CountryId'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The street address of a customer', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'CustomerAddress1'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The extended street address of a customer', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'Customer-Address2'
```

```
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for customers',
'SHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'CustomerId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The full name of a customer',
'SHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'CustomerName'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The postal code of a customer if
applicable', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'Customer-
PostalCode'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The town or city a customer resides
in', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'CustomerTown'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that
took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory',
'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN',
N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag to determine if customer is a
credit risk', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'Is-
CustomerCreditRisk'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag to determine if a customer is a
reseller', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'IsCustomer-
Reseller'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has
been deleted', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'Is-
Deleted'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
key', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'PriorRowLevel-
HashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN',
N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for audit entries
in SalesCustomerHistory', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory',
'COLUMN', N'SalesCustomerHistoryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The spend capacity of a customer',
'SHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'SpendCapacity'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'SysEnd-
Time'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN', N'Sys-
StartTime'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN',
N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'SalesCustomerHistory', 'COLUMN',
N'UserAuthorizationId'
GO
```

## Uses

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[sdAddressesString].[AddressString]  
[sdAddressesString].[PostalCodeString]  
[sdAddressesString].[TownString]  
[sdAudit].[DbAction]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagBit]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdMarketingTextString].[CustomerSpendCapacity]  
[sdNameString].[CustomerName]  
[sdOrdinalNumber].[TransactionNumber]  
Audit

## Used By

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[Audit].[vwFindUniqueTablePkySalesCustomer]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]



## [Audit].[SalesSalesCategoryThresholdHistory]



### MS\_Description



The audit history for Sales Category Threshold

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:40 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type                              | Max Length (Bytes) | Nullability  | Default |
|---|---|--|--------------------|--------------|---------|
|   | SalesCategoryThresholdId<br><i>A unique identifier for SalesCategory-ThresholdIds</i>   | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     |         |
|   | LowerThreshold<br><i>The lowest amount a vehicle in a category is sold for</i>          | [sdNumber].[Currency]                  | 9                  | NOT NULL     |         |
|   | UpperThreshold<br><i>The highest amount this vehicle was sold for</i>                   | [sdNumber].[Currency]                  | 9                  | NOT NULL     |         |
|   | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>             | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     |         |
|   | SysStartTime<br><i>The start time for a system transaction</i>                          | [sdDateTime].[Date-Timestamp]          | 8                  | NULL allowed |         |
|   | SysEndTime<br><i>The end time for a system transaction</i>                              | [sdDateTime].[Date-Timestamp]          | 8                  | NULL allowed |         |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i>        | [sdHashKey].[RowLevelHash-Key]         | 32                 | NULL allowed |         |
|  | TransactionNumber<br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4                  | NOT NULL     |         |
|   | Note<br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200                | NULL allowed |         |
|   | PriorRowLevelHashKey<br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32                 | NULL allowed |         |
|   | FireAuditTrigger<br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1                  | NOT NULL     |         |

|   |  |   |    |             |  |
|---|--|---|----|-------------|--|
|   | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>   | [sdDateTime].[Date-<br>Timestamp]                                 | 8  | NOT<br>NULL | (sysdat<br>etime())  |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>                              | [sdAudit].[DbAction]  | 1  | NOT<br>NULL |  |
|   | <b>IsDeleted</b><br><i>Flag used to check if an entry has been deleted</i>   | [sdFlag].[FlagYesNoString]  | 1  | NOT<br>NULL |  |
|  | <b>SalesSalesCategoryThresholdHistoryId</b><br><i>A unique identifier forSalesSalesCategory-ThresholdHistory IDs</i> | [sdKey].[SurrogateKeyInteger]                                     | 4  | NOT<br>NULL | (NEXT<br>VALUE<br>FOR<br>[Seque<br>nced-<br>Insert].[<br>Audit_<br>Sales-<br>Sales-<br>Categor<br>y-<br>Thresho<br>Id-<br>History_<br>Id]) |
|   | <b>CategoryDescription</b><br><i>The category description a vehicle sales threshold</i>                              | [sdMarketingText-<br>String].[VehicleSalesThreshold-<br>Category] | 40 | NOT<br>NULL |  |

## Indexes

| Key   | Name                                       | Key Columns  | Unique |
|---|--|--|--------|
|  | XPKSales_Sales_Category_Threshold_History  | SalesSalesCategory-<br>ThresholdHistoryId                | True   |
|  | XIE1Sales_Sales_Category_Threshold_History | SalesCategoryThreshold-<br>Id, TransactionNumber<br>DESC |        |

## Check Constraints

| Name   | On Column | Constraint  |
|--|-----------|---|
| CK_Audit_SalesSalesCategoryThresholdHistory_DBAction | DBAction  | ((DBAction)='U' OR [DBAction]='I'<br>OR [DBAction]='D') |

## SQL Script

```
CREATE TABLE [Audit].[SalesSalesCategoryThresholdHistory]
(
    [SalesCategoryThresholdId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [LowerThreshold] [sdNumber].[Currency] NOT NULL,
    [UpperThreshold] [sdNumber].[Currency] NOT NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
```

```
[RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
[Note] [sdLongTextString].[Note] NULL,
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
[AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_Audit_Sales-
SalesCategoryThresholdHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
[DBAction] [sdAudit].[DbAction] NOT NULL,
[IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
[SalesSalesCategoryThresholdHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL
CONSTRAINT [DF_Audit_SalesSalesCategoryThresholdHistory_Id] DEFAULT (NEXT VALUE FOR
[SequenceIdInsert].[Audit_SalesSalesCategoryThresholdHistory_Id]),
[CategoryDescription] [sdMarketingTextString].[VehicleSalesThresholdCategory] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [Audit].[SalesSalesCategoryThresholdHistory] ADD CONSTRAINT [CK_Audit_Sales-
SalesCategoryThresholdHistory_DBAction] CHECK (([DBAction]='U' OR [DBAction]='I' OR
[DBAction]='D'))
GO
ALTER TABLE [Audit].[SalesSalesCategoryThresholdHistory] ADD CONSTRAINT [XPKSales_-
Sales_Category_Threshold_History] PRIMARY KEY NONCLUSTERED ([SalesSalesCategory-
ThresholdHistoryId]) ON [PRIMARY]
GO
CREATE CLUSTERED INDEX [XIE1Sales_Sales_Category_Threshold_History] ON [Audit].[Sales-
SalesCategoryThresholdHistory] ([SalesCategoryThresholdId], [TransactionNumber] DESC)
ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The audit history for Sales Category
Threshold', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', NULL,
NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit
transactions', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory',
'COLUMN', N'AuditDateTimeStamp'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The category description a vehicle
sales threshold', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory',
'COLUMN', N'CategoryDescription'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that
took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThreshold-
History', 'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory',
'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has
been deleted', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory',
'COLUMN', N'IsDeleted'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The lowest amount a vehicle in a
category is sold for', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThreshold-
History', 'COLUMN', N'LowerThreshold'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory',
'COLUMN', N'Note'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', 'COLUMN', N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for SalesCategory-ThresholdIds', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', 'COLUMN', N'SalesCategoryThresholdId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier forSalesSales-CategoryThresholdHistory IDs', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategory-ThresholdHistory', 'COLUMN', N'SalesSalesCategoryThresholdHistoryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', 'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', 'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of database transactions', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The highest amount this vehicle was sold for', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', 'COLUMN', N'UpperThreshold'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-AuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesCategoryThresholdHistory', 'COLUMN', N'UserAuthorizationId'
GO
```

## Uses

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[sdAudit].[DbAction]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdMarketingTextString].[VehicleSalesThresholdCategory]  
[sdNumber].[Currency]  
[sdOrdinalNumber].[TransactionNumber]  
Audit

## Used By

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[Audit].[vwFindUniqueTablePkySalesSalesCategoryThreshold]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold]

## [Audit].[SalesSalesOrderVehicleDetailHistory]



### MS\_Description



The audit history table for SalesOrderVehicleDetail

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:41 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name   | Data Type                            | Max Length (Bytes) | Nullability  | Default                               |
|---|--|--------------------------------------|--------------------|--------------|---------------------------------------|
|   | SalesOrderVehicleDetailId<br><i>A unique identifier for SalesSalesOrder-VehicleDetailHistory Ids</i>                         | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |                                       |
|   | SalesOrderVehicleId<br><i>A unique identifier for a purchase</i>   | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |                                       |
|   | LineItemNumber<br><i>The line item number on the invoice</i>   | [sdSequenceNumber].[Line-ItemNumber] | 4                  | NOT NULL     |                                       |
|   | SalePrice<br><i>The sale price of a vehicle</i>  | [sdNumber].[Currency]                | 9                  | NOT NULL     |                                       |
|   | LineItemDiscount<br><i>The discount of the line item number</i>  | [sdNumber].[Currency]                | 9                  | NOT NULL     |                                       |
|   | ManufacturerVehicleStockId<br><i>A unique identifier for manufacturer vehicle stock</i>                                      | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |                                       |
|   | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>  | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |                                       |
|   | SysStartTime<br><i>The start time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]        | 8                  | NULL allowed |                                       |
|   | SysEndTime<br><i>The end time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]        | 8                  | NULL allowed |                                       |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i>   | [sdHashKey].[RowLevelHash-Key]       | 32                 | NULL allowed |                                       |
|  | SalesSalesOrderVehicleDetailHistoryId<br><i>A unique identifier for audit entries in SalesSalesOrderVehicleDetailHistory</i> | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenceld-Insert],[ |

|  |  |  |     |              | Audit_ - Sales-Sales-Order-Vehicle-Detail-History_ - Id)) |
|--|--|--|-----|--------------|---|
|  | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed |   |
|  | <b>IsDeleted</b><br><i>Flag used to check if an entry has been deleted</i>                     | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     |   |
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     |   |
|  | <b>DerivedDiscountedSalePrice</b><br><i>The derived discounted sale price of a vehicle</i>     | [sdNumber].[Currency]                  | 9   | NULL allowed |   |
|  | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |   |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     |   |
|  | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>                   | [sdDateTime].[Date-Timestamp]          | 8   | NOT NULL     | (sysdatetime())   |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>        | [sdAudit].[DbAction]                   | 1   | NOT NULL     |   |

## Indexes

| Key   | Name   | Key Columns   | Unique |
|---|--|---|--------|
|  | XPk_SalesDetailsHistory                      | SalesSalesOrderVehicle-DetailHistoryId                | True   |
|  | XIE1Sales_Sales_Order_Vehicle_Detail_History | SalesOrderVehicleDetail-Id, TransactionNumber<br>DESC |        |

## Check Constraints

| Name  | On Column | Constraint   |
|---|-----------|--|
| CK_SalesSalesOrderVehicleDetailHistory_DBAction | DBAction  | ([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D') |

## SQL Script

```
CREATE TABLE [Audit].[SalesSalesOrderVehicleDetailHistory]
(
    [SalesOrderVehicleDetailId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [SalesOrderVehicleId] [sdKey].[SurrogateKeyInteger] NOT NULL,
```

```
[LineItemNumber] [sdSequenceNumber].[LineItemNumber] NOT NULL,
[SalePrice] [sdNumber].[Currency] NOT NULL,
[LineItemDiscount] [sdNumber].[Currency] NOT NULL,
[ManufacturerVehicleStockId] [sdKey].[SurrogateKeyInteger] NOT NULL,
[UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
[SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
[SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
[RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[SalesSalesOrderVehicleDetailHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL
CONSTRAINT [DF_Audit_SalesSalesOrderVehicleDetailHistory_Id] DEFAULT (NEXT VALUE FOR
[SequenceIdInsert].[Audit_SalesSalesOrderVehicleDetailHistory_Id]),
[Note] [sdLongTextString].[Note] NULL,
[IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
[DerivedDiscountedSalePrice] [sdNumber].[Currency] NULL,
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
[AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_SalesSales-
OrderVehicleDetailHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
[DBAction] [sdAudit].[DbAction] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [Audit].[SalesSalesOrderVehicleDetailHistory] ADD CONSTRAINT [CK_SalesSales-
OrderVehicleDetailHistory_DBAction] CHECK ((([DBAction]='U' OR [DBAction]='I' OR
[DBAction]='D'))
GO
ALTER TABLE [Audit].[SalesSalesOrderVehicleDetailHistory] ADD CONSTRAINT [XPK_Sales-
DetailsHistory] PRIMARY KEY NONCLUSTERED ([SalesSalesOrderVehicleDetailHistoryId]) ON
[PRIMARY]
GO
CREATE CLUSTERED INDEX [XIE1Sales_Sales_Order_Vehicle_Detail_History] ON [Audit].[Sales-
SalesOrderVehicleDetailHistory] ([SalesOrderVehicleDetailId], [TransactionNumber] DESC)
ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The audit history table for SalesOrder-
VehicleDetail', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit
transactions', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'AuditDateTimeStamp'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that
took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicle-
DetailHistory', 'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The derived discounted sale price of a
vehicle', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'DerivedDiscountedSalePrice'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has
been deleted', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'IsDeleted'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'The discount of the line item number',
'SHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory', 'COLUMN', N'Line-
ItemDiscount'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The line item number on the invoice',
'SHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory', 'COLUMN', N'Line-
ItemNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for manufacturer
vehicle stock', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'ManufacturerVehicleStockId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
key', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory', 'COLUMN',
N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The sale price of a vehicle',
'SHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory', 'COLUMN', N'Sale-
Price'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for SalesSales-
OrderVehicleDetailHistory Ids', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicle-
DetailHistory', 'COLUMN', N'SalesOrderVehicleDetailId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for a purchase',
'SHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory', 'COLUMN', N'Sales-
OrderVehicleId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for audit entries
in SalesSalesOrderVehicleDetailHistory', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrder-
VehicleDetailHistory', 'COLUMN', N'SalesSalesOrderVehicleDetailHistoryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetail-
History', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleDetailHistory',
'COLUMN', N'UserAuthorizationId'
GO
```



## Uses

---

[sdAudit].[DbAction]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdNumber].[Currency]  
[sdOrdinalNumber].[TransactionNumber]  
[sdSequenceNumber].[LineItemNumber]  
Audit

## Used By

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[Audit].[vwFindUniqueTablePkySalesSalesOrderVehicleDetail]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]

## [Audit].[SalesSalesOrderVehicleHistory]



### MS\_Description



The audit history table for SalesOrderVehicle

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 0                                     |
| Created       | 3:47:41 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:43 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name   | Data Type                            | Max Length (Bytes) | Nullability  | Default   |
|---|--|--------------------------------------|--------------------|--------------|---|
|   | SalesOrderVehicleId<br><i>A unique identifier for a purchase</i>   | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |   |
|   | CustomerId<br><i>A unique identifier for customers</i>   | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |   |
|   | StaffId<br><i>A unique identifier for staff members</i>  | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |   |
|   | InvoiceNumber<br><i>The invoice number of an order</i>   | [sdShortTextString].[Invoice-Number] | 8                  | NOT NULL     |   |
|   | TotalSalePrice<br><i>The total sale price of an order</i>  | [sdNumber].[Currency]                | 9                  | NOT NULL     |   |
|   | SaleDate<br><i>The date an order was made</i>  | [sdDate].[DateYYYYMMDD]              | 3                  | NOT NULL     |   |
|   | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>                                      | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |   |
|   | SysStartTime<br><i>The start time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]        | 8                  | NULL allowed |   |
|   | SysEndTime<br><i>The end time for a system transaction</i>   | [sdDateTime].[Date-Timestamp]        | 8                  | NULL allowed |   |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i>                                 | [sdHashKey].[RowLevelHash-Key]       | 32                 | NULL allowed |   |
|  | SalesSalesOrderVehicleHistoryId<br><i>A unique identifier for audit entries in SalesSalesOrderVehicleHistory</i> | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenceld-Insert].[Audit_Sales- |

|   |  |  |     |              |                                   |
|---|--|--|-----|--------------|-----------------------------------|
|   |  |  |     |              | Sales-Order-Vehicle-History_-Id)) |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed |                                   |
|   | <b>IsDeleted</b><br><i>Flag used to check if an entry has been deleted</i>                     | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     |                                   |
|  | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     |                                   |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                                   |
|   | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     |                                   |
|   | <b>AuditDateTimeStamp</b><br><i>A timestamp to record audit transactions</i>                   | [sdDateTime].[Date-Timestamp]          | 8   | NOT NULL     | (sysdatetime())                   |
|  | <b>DBAction</b><br><i>Represents the type of action that took place in the database</i>        | [sdAudit].[DbAction]                   | 1   | NOT NULL     |                                   |
|   | <b>SalesCategoryThresholdId</b><br><i>A unique identifier for SalesCategory-ThresholdIds</i>   | [sdKey].[SurrogateKeyInteger]          | 4   | NULL allowed |                                   |

## Indexes

| Key   | Name                                  | Key Columns                                 | Unique |
|---|---------------------------------------|---|--------|
|  | XPKSalesOrderVehicleHistory           | SalesSalesOrderVehicle-HistoryId            | True   |
|  | XIE1Sales_Sales_Order_Vehicle_History | SalesOrderVehicleId, TransactionNumber DESC |        |

## Check Constraints

| Name                                      | On Column | Constraint   |
|---|-----------|--|
| CK_SalesSalesOrderVehicleHistory_DBAction | DBAction  | ([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D') |

## SQL Script

```
CREATE TABLE [Audit].[SalesSalesOrderVehicleHistory]
(
    [SalesOrderVehicleId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [CustomerId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [StaffId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [InvoiceNumber] [sdShortTextString].[InvoiceNumber] NOT NULL,
    [TotalSalePrice] [sdNumber].[Currency] NOT NULL,
```

```
[SaleDate] [sdDate].[DateYYYYMMDD] NOT NULL,
[UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL,
[SysStartTime] [sdDateTime].[DateTimeStamp] NULL,
[SysEndTime] [sdDateTime].[DateTimeStamp] NULL,
[RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[SalesSalesOrderVehicleHistoryId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT
[DF_Audit_SalesSalesOrderVehicleHistory_Id] DEFAULT (NEXT VALUE FOR [SequenceId-
Insert].[Audit_SalesSalesOrderVehicleHistory_Id]),
[Note] [sdLongTextString].[Note] NULL,
[IsDeleted] [sdFlag].[FlagYesNoString] NOT NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL,
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL,
[AuditDateTimeStamp] [sdDateTime].[DateTimeStamp] NOT NULL CONSTRAINT [DF_SalesSales-
OrderVehicleHistory_AuditDateTimeStamp] DEFAULT (sysdatetime()),
[DBAction] [sdAudit].[DbAction] NOT NULL,
[SalesCategoryThresholdId] [sdKey].[SurrogateKeyInteger] NULL
) ON [PRIMARY]
GO
ALTER TABLE [Audit].[SalesSalesOrderVehicleHistory] ADD CONSTRAINT [CK_SalesSalesOrder-
VehicleHistory_DBAction] CHECK (([DBAction]='U' OR [DBAction]='I' OR [DBAction]='D'))
GO
ALTER TABLE [Audit].[SalesSalesOrderVehicleHistory] ADD CONSTRAINT [XPKSalesOrder-
VehicleHistory] PRIMARY KEY NONCLUSTERED ([SalesSalesOrderVehicleHistoryId]) ON
[PRIMARY]
GO
CREATE CLUSTERED INDEX [XIE1Sales_Sales_Order_Vehicle_History] ON [Audit].[SalesSales-
OrderVehicleHistory] ([SalesOrderVehicleId], [TransactionNumber] DESC) ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The audit history table for SalesOrder-
Vehicle', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A timestamp to record audit
transactions', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN',
N'AuditDateTimeStamp'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for customers',
'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'CustomerId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Represents the type of action that
took place in the database', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicle-
History', 'COLUMN', N'DBAction'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory',
'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The invoice number of an order',
'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'Invoice-
Number'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry has
been deleted', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN',
N'IsDeleted'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN',
N'Note'
```

```
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'Prior-RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The date an order was made', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'SaleDate'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for SalesCategory-ThresholdIds', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'SalesCategoryThresholdId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for a purchase', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'SalesOrder-VehicleId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for audit entries in SalesSalesOrderVehicleHistory', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrder-VehicleHistory', 'COLUMN', N'SalesSalesOrderVehicleHistoryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for staff members', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'StaffId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system transaction', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The total sale price of an order', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'TotalSale-Price'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of database transactions', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-AuthorizationIds', 'SCHEMA', N'Audit', 'TABLE', N'SalesSalesOrderVehicleHistory', 'COLUMN', N'UserAuthorizationId'
GO
```

## Uses

[sdAudit].[DbAction]  
[sdDate].[DateYYYYMMDD]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Tables > Audit.SalesSalesOrderVehicleHistory

[sdLongTextString].[Note]  
[sdNumber].[Currency]  
[sdOrdinalNumber].[TransactionNumber]  
[sdShortTextString].[InvoiceNumber]  
Audit

### Used By

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[Audit].[vwFindUniqueTablePkySalesSalesOrderVehicle]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]

## [DbSecurity].[UserAuthorization]





### MS\_Description

The authorization of database actions by a user


### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 7                                     |
| Created       | 3:47:41 AM Thursday, December 7, 2023 |
| Last Modified | 3:47:44 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type  | Max Length (Bytes) | Nullability  | Default  |
|---|---|--|--------------------|--------------|--|
|   | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i> | [sdKey].[SurrogateKeyInteger]                    | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenceld-Insert].[Db-Security_User-Authorization_Id]) |
|  | ClassTime<br><i>The class time for CSCI381 Data Modeling</i>                | [sdTimeString].[ClassTime-String]                | 10                 | NULL allowed | ('10:45')  |
|   | IndividualProject<br><i>The name of the individual project</i>              | [sdProjectString].[Individual-ProjectNameString] | 120                | NULL allowed | ('CSCI381 Final Project')  |
|  | GroupMemberLastName<br><i>The group members last name</i>                   | [sdNameString].[LastName-String]                 | 70                 | NOT NULL     |  |
|  | GroupMemberFirstName<br><i>The group members first name</i>                 | [sdNameString].[FirstName-String]                | 50                 | NOT NULL     |  |
|   | SysStartTime<br><i>The start time for a system transaction</i>              | [sdDateTime].[Date-Timestamp]                    | 8                  | NULL allowed | (sysdatetime())  |
|   | SysEndTime<br><i>The end time for a system transaction</i>                  | [sdDateTime].[Date-Timestamp]                    | 8                  | NULL allowed | ('99991231 23:59:59.9999999')  |
|   | GroupName<br><i>The name of the group</i>                                   | [sdProjectString].[Group-ProjectNameString]      | 40                 | NOT NULL     | ('Group 3')  |

## Indexes

| Key   | Name                   | Key Columns                                | Unique |
|---|------------------------|--|--------|
|  | XPKUser_Authorization  | UserAuthorizationId                        | True   |
|   | XIE1User_Authorization | GroupMemberLastName, Group-MemberFirstName |        |

## Check Constraints

| Name   | On Column | Constraint   |
|--|-----------|--|
| CK_DbSecurity_UserAuthorization_ClassTime    | ClassTime | ([ClassTime] like '[0-1][0-9]:[0-5][0-9]' OR [ClassTime] like '[0-2][0-4]:[0-5][0-9]') |
| CK_DbSecurity_UserAuthorization_SysEndTime   |           | ([SysEndTime]>=[SysStartTime])   |
| CK_DbSecurity_UserAuthorization_SysStartTime |           | ([SysEndTime]>=[SysStartTime])   |

## SQL Script

```
CREATE TABLE [DbSecurity].[UserAuthorization]
(
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_DbSecurity_
    UserAuthorization_Id_903797191] DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[DbSecurity_
    UserAuthorization_Id]),
    [ClassTime] [sdTimeString].[ClassTimeString] NULL CONSTRAINT [DF_DbSecurity_User-
    Authorization_ClassTime] DEFAULT ('10:45'),
    [IndividualProject] [sdProjectString].[IndividualProjectNameString] NULL CONSTRAINT
    [DF_DbSecurity_UserAuthorization_IndividualProject] DEFAULT ('CSCI381 Final Project'),
    [GroupMemberLastName] [sdNameString].[LastNameString] NOT NULL,
    [GroupMemberFirstName] [sdNameString].[FirstNameString] NOT NULL,
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_DbSecurity_User-
    Authorization_SysStartTime] DEFAULT (sysdatetime()),
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_DbSecurity_User-
    Authorization_SysEndTime] DEFAULT ('99991231 23:59:59.9999999'),
    [GroupName] [sdProjectString].[Group1ProjectNameString] NOT NULL CONSTRAINT [DF_Db-
    Security_UserAuthorization_GroupName] DEFAULT ('Group 3')
) ON [PRIMARY]
GO
ALTER TABLE [DbSecurity].[UserAuthorization] ADD CONSTRAINT [CK_DbSecurity_User-
Authorization_ClassTime] CHECK (([ClassTime] like '[0-1][0-9]:[0-5][0-9]' OR [Class-
Time] like '[0-2][0-4]:[0-5][0-9]'))
GO
ALTER TABLE [DbSecurity].[UserAuthorization] ADD CONSTRAINT [CK_DbSecurity_User-
Authorization_SysEndTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [DbSecurity].[UserAuthorization] ADD CONSTRAINT [CK_DbSecurity_User-
Authorization_SysStartTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [DbSecurity].[UserAuthorization] ADD CONSTRAINT [XPKUser_Authorization]
PRIMARY KEY CLUSTERED ([UserAuthorizationId]) ON [PRIMARY]
GO
CREATE NONCLUSTERED INDEX [XIE1User_Authorization] ON [DbSecurity].[UserAuthorization]
```



```
([GroupMemberLastName], [GroupMemberFirstName]) ON [PRIMARY]
GO
EXEC sp_addextendedproperty N'MS_Description', N'The authorization of database actions
by a user', 'SCHEMA', N'DbSecurity', 'TABLE', N'UserAuthorization', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'The class time for CSCI381 Data
Modeling', 'SCHEMA', N'DbSecurity', 'TABLE', N'UserAuthorization', 'COLUMN', N'Class-
Time'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The group members first name',
'SCHEMA', N'DbSecurity', 'TABLE', N'UserAuthorization', 'COLUMN', N'GroupMemberFirst-
Name'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The group members last name',
'SCHEMA', N'DbSecurity', 'TABLE', N'UserAuthorization', 'COLUMN', N'GroupMemberLast-
Name'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of the group', 'SCHEMA', N'Db-
Security', 'TABLE', N'UserAuthorization', 'COLUMN', N'GroupName'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of the individual project',
'SCHEMA', N'DbSecurity', 'TABLE', N'UserAuthorization', 'COLUMN', N'IndividualProject'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'DbSecurity', 'TABLE', N'UserAuthorization', 'COLUMN', N'Sys-
EndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'DbSecurity', 'TABLE', N'UserAuthorization', 'COLUMN', N'Sys-
StartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'DbSecurity', 'TABLE', N'UserAuthorization', 'COLUMN',
N'UserAuthorizationId'
GO
```

## Uses

---

[sdDateTime].[DateTimeStamp]  
[sdKey].[SurrogateKeyInteger]  
[sdNameString].[FirstNameString]  
[sdNameString].[LastNameString]  
[sdProjectString].[GroupProjectNameString]  
[sdProjectString].[IndividualProjectNameString]  
[sdTimeString].[ClassTimeString]  
DbSecurity

## Used By

---

[HumanResources].[Staff]  
[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Tables > Db-Security.UserAuthorization

[Sales].[SalesCategoryThreshold]

[Sales].[SalesOrderVehicle]

[Sales].[SalesOrderVehicleDetail]

## [HumanResources].[Staff]





### MS\_Description


A staff member of the business who sells vehicles to customers

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 13                                    |
| Created       | 3:47:41 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:36 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type                                       | Max Length (Bytes) | Nullability  | Default   |
|---|---|---|--------------------|--------------|---|
|   | <b>StaffId</b><br><i>A unique identifier for staff members</i>                          | [sdKey].[SurrogateKeyInteger]                   | 4                  | NOT NULL     | (NEXT VALUE FOR [SequencId-Insert].[HumanResources - Staff - Id]) |
|  | <b>ManagerId</b><br><i>The ID of a staff member that supervises an employee</i>         | [sdKey].[SurrogateKeyInteger]                   | 4                  | NULL allowed |   |
|  | <b>StaffName</b><br><i>The full name of a staff member</i>                              | [sdNameString].[FullName-String]                | 120                | NOT NULL     |   |
|   | <b>Department</b><br><i>The department name a staff member works in</i>                 | [sdBusinessComponent-String].[DepartmentString] | 30                 | NULL allowed |   |
|  | <b>UserAuthorizationId</b><br><i>A unique identifier for UserAuthorization-Ids</i>      | [sdKey].[SurrogateKeyInteger]                   | 4                  | NOT NULL     | ((1))   |
|   | <b>SysStartTime</b><br><i>The start time for a system transaction</i>                   | [sdDateTime].[Date-Timestamp]                   | 8                  | NULL allowed | (sysdatetime())   |
|   | <b>SysEndTime</b><br><i>The end time for a system transaction</i>                       | [sdDateTime].[Date-Timestamp]                   | 8                  | NULL allowed | ('99991231 23:59:59.999999')                                      |
|   | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i> | [sdHashKey].[RowLevelHash-Key]                  | 32                 | NULL allowed |   |

|   |  |  |     |              |                      |
|---|--|--|-----|--------------|----------------------|
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     | ((1))                |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed | ('Row was inserted') |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                      |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     | ('N')                |

## Indexes

| Key   | Name      | Key Columns | Unique |
|---|-----------|-------------|--------|
|  | XPKStaff  | StaffId     | True   |
|   | XIE1Staff | StaffName   |        |

## Triggers

| Name      | ANSI Nulls On | Quoted Identifier On | On           |
|-----------|---------------|----------------------|--------------|
| uTd_Staff | True          | True                 | After Delete |
| uTi_Staff | True          | True                 | After Insert |
| uTu_Staff | True          | True                 | After Update |

## Check Constraints

| Name                                     | On Column        | Constraint  |
|--|------------------|---|
| CK_HumanResources_Staff_FireAuditTrigger | FireAuditTrigger | ((FireAuditTrigger]='Y' OR [FireAudit-Trigger]='N') |
| CK_HumanResources_Staff_SysStartTime     |                  | (([SysEndTime]>=[SysStartTime])                     |

## Foreign Keys

| Name                       | Columns   |
|----------------------------|---|
| FK_Staff_Staff             | ManagerId->[HumanResources].[Staff].[StaffId]                               |
| FK_Staff_UserAuthorization | UserAuthorizationId->[DbSecurity].[UserAuthorization].[UserAuthorizationId] |

## SQL Script

```
CREATE TABLE [HumanResources].[Staff]
(
    [StaffId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_HumanResources_Staff_Id] DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[HumanResources_Staff_Id]),
```

```
[ManagerId] [sdKey].[SurrogateKeyInteger] NULL,
[StaffName] [sdNameString].[FullNameString] NOT NULL,
[Department] [sdBusinessComponentString].[DepartmentString] NULL,
[UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Human-
Resources_Staff_UserAuthorizationId] DEFAULT ((1)),
[SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_HumanResources_Staff_-
SysStartTime] DEFAULT (sysdatetime()),
[SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_HumanResources_Staff_Sys-
EndTime] DEFAULT ('99991231 23:59:59.9999999'),
[RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [DF_Human-
Resources_Staff_TransactionNumber] DEFAULT ((1)),
[Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_HumanResources_Staff_Note] DEFAULT
('Row was inserted'),
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_HumanResources_-
Staff_FireAuditTrigger] DEFAULT ('N')
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: HumanResources.uTd_Staff on HumanResources.Staff
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [HumanResources].[uTd_Staff] on [HumanResources].[Staff]
WITH
    EXECUTE AS CALLER AFTER DELETE

AS

BEGIN

DECLARE
@NowTimestamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."HumanResourcesStaffHistory"
(
    "d"."StaffId", "d"."StaffName", "d"."ManagerId", "d"."Department", "d"."Transaction-
Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime",
"d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger", "d"."Audit-
DateTimeStamp", "d"."DBAction", "d"."isDeleted"
)
SELECT
    "d"."StaffId", "d"."StaffName", "d"."ManagerId", "d"."Department",
    "d"."TransactionNumber",
```

```
'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
Transaction Number: ', "d"."TransactionNumber")),
"d"."UserAuthorizationId",
"d"."SysStartTime",
@NowTimeStamp, -- AS SysEndTime
"d"."RowLevelHashKey",
"d"."PriorRowLevelHashKey",
"d"."FireAuditTrigger",
@NowTimeStamp,
@DBAction,
@isDeleted
FROM deleted as "d"
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: HumanResources.uTi_Staff on HumanResources.Staff
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [HumanResources].[uTi_Staff] on [HumanResources].[Staff]
WITH
    EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
    factually being true
    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputHumanResources-
Staff"("i"."StaffId"),
        "ut"."PriorRowLevelHashKey" = null,
        "ut"."Note" = 'Row Inserted',
        "ut"."FireAuditTrigger" = 'N'
    FROM "HumanResources"."Staff" as "ut" --updateTable
    INNER JOIN inserted as "i"
    ON "i"."StaffId" = "ut"."StaffId"
    AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: HumanResources.uTu_Staff on HumanResources.Staff
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [HumanResources].[uTu_Staff] on [HumanResources].[Staff]
```

```
WITH
EXECUTE AS CALLER AFTER UPDATE

AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';

    SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
    FROM deleted as "d"
        INNER JOIN inserted as "i"
            ON "i"."StaffId" = "d"."StaffId"
        AND "i"."TransactionNumber" = "d"."TransactionNumber";

    -- Audit only if @FireAuditTrigger = 'Y'
    IF (@FireAuditTrigger = 'Y')
    BEGIN
        -- Insert record into audit table
        INSERT INTO "Audit"."HumanResourcesStaffHistory"
        (
            "d"."StaffId", "d"."StaffName", "d"."ManagerId", "d"."Department", "d"."Transaction-
            Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEnd-
            Time", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger",
            "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
        )
        SELECT
            "d"."StaffId", "d"."StaffName", "d"."ManagerId", "d"."Department",
            "d"."TransactionNumber",
            coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
            Number")),
            "d"."UserAuthorizationId",
            "d"."SysStartTime",
            @NowTimeStamp,
            "d"."RowLevelHashKey",
            "d"."PriorRowLevelHashKey",
            "d"."FireAuditTrigger",
            @NowTimeStamp,
            @DBAction,
            @isDeleted
        FROM deleted AS "d"
        INNER JOIN inserted AS "i"
            ON "i"."StaffId" = "d"."StaffId"
            AND "i"."TransactionNumber" = "d"."TransactionNumber";

        UPDATE "ut"
        SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputHumanResources-
        Staff"("i"."StaffId"),
            "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
            "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
            "ut"."SysStartTime" = @NowTimeStamp,
```

```
"ut"."SysEndTime" = @OpenEndedSysEndTime,
"ut"."Note" = "i"."Note",
"ut"."FireAuditTrigger" = 'N'
FROM "HumanResources"."Staff" as "ut"
INNER JOIN inserted as "i"
ON "i"."StaffId" = "ut"."StaffId"
AND "i"."TransactionNumber" = "ut"."TransactionNumber"
AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
INNER JOIN deleted as "d"
ON "i"."StaffId" = "d"."StaffId"
AND "i"."TransactionNumber" = "d"."TransactionNumber"
AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [HumanResources].[Staff] ADD CONSTRAINT [CK_HumanResources_Staff_FireAudit-
Trigger] CHECK (([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N'))
GO
ALTER TABLE [HumanResources].[Staff] ADD CONSTRAINT [CK_HumanResources_Staff_SysStart-
Time] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [HumanResources].[Staff] ADD CONSTRAINT [XPKStaff] PRIMARY KEY CLUSTERED
([StaffId]) ON [PRIMARY]
GO
CREATE NONCLUSTERED INDEX [XIE1Staff] ON [HumanResources].[Staff] ([StaffName]) ON
[PRIMARY]
GO
ALTER TABLE [HumanResources].[Staff] ADD CONSTRAINT [FK_Staff_Staff] FOREIGN KEY
([ManagerId]) REFERENCES [HumanResources].[Staff] ([StaffId])
GO
ALTER TABLE [HumanResources].[Staff] ADD CONSTRAINT [FK_Staff_UserAuthorization]
FOREIGN KEY ([UserAuthorizationId]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'A staff member of the business who
sells vehicles to customers', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', NULL,
NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'The department name a staff member
works in', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'Department'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'FireAudit-
Trigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The ID of a staff member that
supervises an employee', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN',
N'ManagerId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
key', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'RowLevel-
```



```
HashKey'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for staff  
members', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'StaffId'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'The full name of a staff member',  
'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'StaffName'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system  
transaction', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'SysEndTime'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system  
transaction', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'SysStartTime'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of  
database transactions', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN',  
N'TransactionNumber'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-  
AuthorizationIds', 'SCHEMA', N'HumanResources', 'TABLE', N'Staff', 'COLUMN', N'User-  
AuthorizationId'  
GO
```

---

## Uses

[DbSecurity].[UserAuthorization]  
[sdBusinessComponentString].[DepartmentString]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdNameString].[FullNameString]  
[sdOrdinalNumber].[TransactionNumber]  
HumanResources

---

## Used By

[Sales].[SalesOrderVehicle]  
[Audit].[vwFindUniqueTablePkyHumanResourcesStaff]  
[CustomViews].[uvw\_ChuanStaffDiscountGiven]  
[CustomViews].[uvw\_ChuanStaffSales]  
[CustomViews].[uvw\_RalphEmployeeManager]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]  
[Hashing].[CreateSha256KeyFromJsonInputHumanResourcesStaff]

## [Locale].[Country]





### MS\_Description


A country or territory in the world

### Properties


| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 10                                    |
| Created       | 3:47:36 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:36 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name   | Data Type                               | Max Length (Bytes) | Nullability  | Default  |
|---|--|---|--------------------|--------------|--|
|   | CountryId<br><i>A unique identifier for countries</i>                            | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenceld-Insert].[Locale_Country_Id]) |
|  | CountryISO3<br><i>The ISO3 format of a country</i>                               | [sdCountryString-Variant].[CountryISO3] | 6                  | NOT NULL     |  |
|   | CountryName<br><i>The name of the country</i>                                    | [sdAddressesString].[Country-String]    | 100                | NOT NULL     |  |
|  | CountryISO2<br><i>The ISO2 format of a country</i>                               | [sdCountryString-Variant].[CountryISO2] | 4                  | NOT NULL     |  |
|   | SalesRegion<br><i>The name of the sales region a country belongs to</i>          | [sdAddressesString].[Region-String]     | 40                 | NOT NULL     |  |
|  | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>      | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     | ((1))  |
|   | SysStartTime<br><i>The start time for a system transaction</i>                   | [sdDateTime].[Date-Timestamp]           | 8                  | NULL allowed | (sysdatetime())  |
|   | SysEndTime<br><i>The end time for a system transaction</i>                       | [sdDateTime].[Date-Timestamp]           | 8                  | NULL allowed | ('99991231 23:59:59.999999')                             |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i> | [sdHashKey].[RowLevelHash-Key]          | 32                 | NULL allowed |  |

|   |  |  |     |              |                      |
|---|--|--|-----|--------------|----------------------|
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     | ((1))                |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed | ('Row was inserted') |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                      |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     | ('N')                |

## Indexes

| Key   | Name       | Key Columns | Unique |
|---|------------|-------------|--------|
|  | PK_Country | CountryId   | True   |

## Triggers

| Name        | ANSI Nulls On | Quoted Identifier On | On           |
|-------------|---------------|----------------------|--------------|
| uTd_Country | True          | True                 | After Delete |
| uTi_Country | True          | True                 | After Insert |
| uTu_Country | True          | True                 | After Update |

## Check Constraints

| Name                               | On Column        | Constraint   |
|------------------------------------|------------------|--|
| CK_Locale_Country_CountryISO2      | CountryISO2      | ((CountryISO2) like '[A-Z][A-Z]')                  |
| CK_Locale_Country_CountryISO3      | CountryISO3      | ((CountryISO3) like '[A-Z][A-Z][A-Z]')             |
| CK_Locale_Country_FireAuditTrigger | FireAuditTrigger | ((FireAuditTrigger]='Y' OR [FireAuditTrigger]='N') |
| CK_Locale_Country_SysEndTime       |                  | ((SysEndTime]>=[SysStartTime])                     |
| CK_Locale_Country_SysStartTime     |                  | ((SysEndTime]>=[SysStartTime])                     |

## Foreign Keys

| Name                         | Columns   |
|------------------------------|---|
| FK_Country_UserAuthorization | UserAuthorizationId->[DbSecurity].[UserAuthorization].[UserAuthorizationId] |

## SQL Script

```
CREATE TABLE [Locale].[Country]
(
  [CountryId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Locale_Country_Id]
```

```
DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[Locale_Country_Id]),
[CountryISO3] [sdCountryStringVariant].[CountryISO3] NOT NULL,
[CountryName] [sdAddressesString].[CountryString] NOT NULL,
[CountryISO2] [sdCountryStringVariant].[CountryISO2] NOT NULL,
[SalesRegion] [sdAddressesString].[RegionString] NOT NULL,
[UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Locale_
Country_UserAuthorizationId] DEFAULT ((1)),
[SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Locale_Country_SysStart-
Time] DEFAULT (sysdatetime()),
[SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Locale_Country_SysEnd-
Time] DEFAULT ('99991231 23:59:59.999999'),
[RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [DF_-
Locale_Country_TransactionNumber] DEFAULT ((1)),
[Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_Locale_Country_Note] DEFAULT ('Row
was inserted'),
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_Locale_Country_-
FireAuditTrigger] DEFAULT ('N')
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Locale.uTd_Country on Locale.Country
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [Locale].[uTd_Country] on [Locale].[Country]
WITH
    EXECUTE AS CALLER AFTER DELETE

AS

BEGIN

DECLARE
@NowTimestamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."LocaleCountryHistory"
(
    "d"."CountryId", "d"."CountryISO3", "d"."CountryName", "d"."CountryISO2", "d"."Sales-
Region", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStart-
Time", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."Fire-
AuditTrigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
)
SELECT
```

```
"d"."CountryId", "d"."CountryISO3", "d"."CountryName", "d"."CountryISO2", "d"."Sales-
Region",
"d"."TransactionNumber",
'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
Transaction Number: ', "d"."TransactionNumber")),
"d"."UserAuthorizationId",
"d"."SysStartTime",
@NowTimeStamp, -- AS SysEndTime
"d"."RowLevelHashKey",
"d"."PriorRowLevelHashKey",
"d"."FireAuditTrigger",
@NowTimeStamp,
@DBAction,
@isDeleted
FROM deleted as "d"
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Locale.uTi_Country on Locale.Country
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Locale].[uTi_Country] on [Locale].[Country]
WITH
    EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
    factually being true
    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputLocale-
Country"("i"."CountryId"),
        "ut"."PriorRowLevelHashKey" = null,
        "ut"."Note" = 'Row Inserted',
        "ut"."FireAuditTrigger" = 'N'
    FROM "Locale"."Country" as "ut" --updateTable
    INNER JOIN inserted as "i"
    ON "i"."CountryId" = "ut"."CountryId"
    AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Locale.uTu_Country on Locale.Country
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE
```

```
-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Locale].[uTu_Country] on [Locale].[Country]
WITH
    EXECUTE AS CALLER AFTER UPDATE

AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';

    SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
    FROM deleted as "d"
        INNER JOIN inserted as "i"
            ON "i"."CountryId" = "d"."CountryId"
        AND "i"."TransactionNumber" = "d"."TransactionNumber";

    -- Audit only if @FireAuditTrigger = 'Y'
    IF (@FireAuditTrigger = 'Y')
    BEGIN
        -- Insert record into audit table
        INSERT INTO "Audit"."LocaleCountryHistory"
        (
            "d"."CountryId", "d"."CountryISO3", "d"."CountryName", "d"."CountryISO2", "d"."Sales-
            Region", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStart-
            Time", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
            Trigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
        )
        SELECT
            "d"."CountryId", "d"."CountryISO3", "d"."CountryName", "d"."CountryISO2",
            "d"."SalesRegion",
            "d"."TransactionNumber",
            coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
            Number")),
            "d"."UserAuthorizationId",
            "d"."SysStartTime",
            @NowTimeStamp,
            "d"."RowLevelHashKey",
            "d"."PriorRowLevelHashKey",
            "d"."FireAuditTrigger",
            @NowTimeStamp,
            @DBAction,
            @isDeleted
        FROM deleted AS "d"
        INNER JOIN inserted AS "i"
            ON "i"."CountryId" = "d"."CountryId"
            AND "i"."TransactionNumber" = "d"."TransactionNumber";

        UPDATE "ut"
        SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputLocale-
```

```
Country" ("i"."CountryId"),
    "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
    "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
    "ut"."SysStartTime" = @NowTimeStamp,
    "ut"."SysEndTime" = @OpenEndedSysEndTime,
    "ut"."Note" = "i"."Note",
    "ut"."FireAuditTrigger" = 'N'
FROM "Locale"."Country" as "ut"
INNER JOIN inserted as "i"
    ON "i"."CountryId" = "ut"."CountryId"
    AND "i"."TransactionNumber" = "ut"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
INNER JOIN deleted as "d"
    ON "i"."CountryId" = "d"."CountryId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [Locale].[Country] ADD CONSTRAINT [CK_Locale_Country_CountryISO2] CHECK
(([CountryISO2] like '[A-Z][A-Z]'))
GO
ALTER TABLE [Locale].[Country] ADD CONSTRAINT [CK_Locale_Country_CountryISO3] CHECK
(([CountryISO3] like '[A-Z][A-Z][A-Z]'))
GO
ALTER TABLE [Locale].[Country] ADD CONSTRAINT [CK_Locale_Country_FireAuditTrigger]
CHECK (([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N'))
GO
ALTER TABLE [Locale].[Country] ADD CONSTRAINT [CK_Locale_Country_SysEndTime] CHECK
(([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Locale].[Country] ADD CONSTRAINT [CK_Locale_Country_SysStartTime] CHECK
(([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Locale].[Country] ADD CONSTRAINT [PK_Country] PRIMARY KEY CLUSTERED
([CountryId]) ON [PRIMARY]
GO
ALTER TABLE [Locale].[Country] ADD CONSTRAINT [FK_Country_UserAuthorization] FOREIGN
KEY ([UserAuthorizationId]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'A country or territory in the world',
'SHEMA', N'Locale', 'TABLE', N'Country', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for countries',
'SHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'CountryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The ISO2 format of a country',
'SHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'CountryISO2'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The ISO3 format of a country',
'SHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'CountryISO3'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of the country', 'SCHEMA',
N'Locale', 'TABLE', N'Country', 'COLUMN', N'CountryName'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'FireAudit-
Trigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
key', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'RowLevelHash-
Key'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of the sales region a coutry
belongs to', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'SalesRegion'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN',
N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Locale', 'TABLE', N'Country', 'COLUMN', N'User-
AuthorizationId'
GO
```

---

## Uses

[DbSecurity].[UserAuthorization]  
[sdAddressesString].[CountryString]  
[sdAddressesString].[RegionString]  
[sdCountryStringVariant].[CountryISO2]  
[sdCountryStringVariant].[CountryISO3]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
Locale

---

## Used By

[Production].[ManufacturerVehicleMake]  
[Sales].[Customer]  
[Audit].[vwFindUniqueTablePkyLocaleCountry]  
[CustomViews].[uvw\_ChuanCustomerCountry]  
[CustomViews].[uvw\_ChuanMakeCountry]



Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Tables > Locale.Country

[Sales].[uvw\_Sales2018]

[Sales].[uvw\_SalesByCountry]

[Sales].[uvw\_SalesText]

[Sales].[uvw\_YearlySales]

[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]

[Hashing].[CreateSha256KeyFromJsonInputLocaleCountry]

## [Production].[ManufacturerModel]




### MS\_Description


The model of a particular vehicle created by the manufacturer

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 100                                   |
| Created       | 3:47:38 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:36 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type                               | Max Length (Bytes) | Nullability  | Default   |
|---|---|---|--------------------|--------------|---|
|   | <b>ManufacturerModelId</b><br><i>A unique identifier for vehicle models</i>                 | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenceld-Insert].[Production_Manufacturer-Model_Id]) |
|   | <b>ManufacturerModelName</b><br><i>The name of a vehicle model</i>                          | [sdVehicleString].[Vehicle-ModelString] | 70                 | NOT NULL     |   |
|   | <b>ManufacturerModelVariant</b><br><i>The name of a vehicle model variant if applicable</i> | [sdVehicleString].[Vehicle-ModelString] | 70                 | NULL allowed |   |
|  | <b>ManufacturerVehicleMakeId</b><br><i>A unique identifier for vehicle makes</i>            | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     |   |
|  | <b>UserAuthorizationId</b><br><i>A unique identifier for UserAuthorization-Ids</i>          | [sdKey].[SurrogateKeyInteger]           | 4                  | NOT NULL     | ((1))   |
|   | <b>SysStartTime</b><br><i>The start time for a system transaction</i>                       | [sdDateTime].[Date-Timestamp]           | 8                  | NULL allowed | (sysdatetime())   |
|   | <b>SysEndTime</b><br><i>The end time for a system transaction</i>                           | [sdDateTime].[Date-Timestamp]           | 8                  | NULL allowed | ('99991231 23:59:59.999999')  |
|   | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i>     | [sdHashKey].[RowLevelHash-Key]          | 32                 | NULL allowed |   |

|   |  |  |     |              |                      |
|---|--|--|-----|--------------|----------------------|
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     | ((1))                |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed | ('Row was inserted') |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                      |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     | ('N')                |

## Indexes

| Key   | Name       | Key Columns         | Unique |
|---|------------|---------------------|--------|
|  | PK_Model_1 | ManufacturerModelId | True   |

## Triggers

| Name                  | ANSI Nulls On | Quoted Identifier On | On           |
|-----------------------|---------------|----------------------|--------------|
| uTd_ManufacturerModel | True          | True                 | After Delete |
| uTi_ManufacturerModel | True          | True                 | After Insert |
| uTu_ManufacturerModel | True          | True                 | After Update |

## Check Constraints

| Name   | On Column        | Constraint  |
|--|------------------|---|
| CK_Production_ManufacturerModel_FireAuditTrigger | FireAuditTrigger | ((FireAuditTrigger]='Y' OR [Fire-AuditTrigger]='N') |
| CK_Production_ManufacturerModel_SysEndTime       |                  | (([SysEndTime]>=[SysStartTime])                     |
| CK_Production_ManufacturerModel_SysStartTime     |                  | (([SysEndTime]>=[SysStartTime])                     |

## Foreign Keys

| Name   | Columns  |
|--|--|
| FK_ManufacturerModel_ManufacturerVehicleMake | ManufacturerVehicleMakeId->[Production].[Manufacturer-VehicleMake].[ManufacturerVehicleMakeId] |
| FK_ManufacturerModel_UserAuthorization       | UserAuthorizationId->[DbSecurity].[User-Authorization].[UserAuthorizationId]                   |

## SQL Script

```
CREATE TABLE [Production].[ManufacturerModel]
(
```

```
[ManufacturerModelId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Production_
ManufacturerModel_Id] DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[Production_
ManufacturerModel_Id]),
[ManufacturerModelName] [sdVehicleString].[VehicleModelString] NOT NULL,
[ManufacturerModelVariant] [sdVehicleString].[VehicleModelString] NULL,
[ManufacturerVehicleMakeId] [sdKey].[SurrogateKeyInteger] NOT NULL,
[UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Production_
ManufacturerModel_UserAuthorizationId] DEFAULT ((1)),
[SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Production_Manufacturer-
Model_SysStartTime] DEFAULT (sysdatetime()),
[SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Production_Manufacturer-
Model_SysEndTime] DEFAULT ('99991231 23:59:59.9999999'),
[RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [DF_-
Production_ManufacturerModel_TransactionNumber] DEFAULT ((1)),
[Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_Production_ManufacturerModel_Note]
DEFAULT ('Row was inserted'),
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_Production_
ManufacturerModel_FireAuditTrigger] DEFAULT ('N')
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTd_ManufacturerModel on Production.ManufacturerModel
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [Production].[uTd_ManufacturerModel] on [Production].[ManufacturerModel]
WITH
    EXECUTE AS CALLER AFTER DELETE

AS

BEGIN

DECLARE
@NowTimestamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."ProductionManufacturerModelHistory"
(
    "d"."ManufacturerModelId", "d"."ManufacturerVehicleMakeId", "d"."ManufacturerModel-
Name", "d"."ManufacturerModelVariant", "d"."TransactionNumber", "d"."Note", "d"."User-
AuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey",
"d"."PriorRowLevelHashKey", "d"."FireAuditTrigger", "d"."AuditDateTimeStamp",
"d"."DBAction", "d"."isDeleted"
)
```

```
SELECT
    "d"."ManufacturerModelId", "d"."ManufacturerVehicleMakeId", "d"."ManufacturerModel-
Name", "d"."ManufacturerModelVariant",
    "d"."TransactionNumber",
    'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
Transaction Number: ', "d"."TransactionNumber")),
    "d"."UserAuthorizationId",
    "d"."SysStartTime",
    @NowTimeStamp, -- AS SysEndTime
    "d"."RowLevelHashKey",
    "d"."PriorRowLevelHashKey",
    "d"."FireAuditTrigger",
    @NowTimeStamp,
    @DBAction,
    @isDeleted
FROM deleted as "d"
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTi_ManufacturerModel on Production.ManufacturerModel
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Production].[uTi_ManufacturerModel] on [Production].[ManufacturerModel]
WITH
    EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
    factually being true
    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputProduction-
ManufacturerModel"("i"."ManufacturerModelId"),
        "ut"."PriorRowLevelHashKey" = null,
        "ut"."Note" = 'Row Inserted',
        "ut"."FireAuditTrigger" = 'N'
    FROM "Production"."ManufacturerModel" as "ut" --updateTable
    INNER JOIN inserted as "i"
    ON "i"."ManufacturerModelId" = "ut"."ManufacturerModelId"
    AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTu_ManufacturerModel on Production.ManufacturerModel
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE
```

```
-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Production].[uTu_ManufacturerModel] ON [Production].[ManufacturerModel]
WITH
    EXECUTE AS CALLER AFTER UPDATE

AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';

    SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
    FROM deleted as "d"
        INNER JOIN inserted as "i"
            ON "i"."ManufacturerModelId" = "d"."ManufacturerModelId"
            AND "i"."TransactionNumber" = "d"."TransactionNumber";

    -- Audit only if @FireAuditTrigger = 'Y'
    IF (@FireAuditTrigger = 'Y')
    BEGIN
        -- Insert record into audit table
        INSERT INTO "Audit"."ProductionManufacturerModelHistory"
        (
            "d"."ManufacturerModelId", "d"."ManufacturerVehicleMakeId", "d"."ManufacturerModel-
            Name", "d"."ManufacturerModelVariant", "d"."TransactionNumber", "d"."Note", "d"."User-
            AuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."Prior-
            RowLevelHashKey", "d"."FireAuditTrigger", "d"."AuditDateTimeStamp", "d"."DBAction",
            "d"."isDeleted"
        )
        SELECT
            "d"."ManufacturerModelId", "d"."ManufacturerVehicleMakeId", "d"."Manufacturer-
            ModelName", "d"."ManufacturerModelVariant",
            "d"."TransactionNumber",
            coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
            Number")),
            "d"."UserAuthorizationId",
            "d"."SysStartTime",
            @NowTimeStamp,
            "d"."RowLevelHashKey",
            "d"."PriorRowLevelHashKey",
            "d"."FireAuditTrigger",
            @NowTimeStamp,
            @DBAction,
            @isDeleted
        FROM deleted AS "d"
            INNER JOIN inserted AS "i"
                ON "i"."ManufacturerModelId" = "d"."ManufacturerModelId"
                AND "i"."TransactionNumber" = "d"."TransactionNumber";
```

```
UPDATE "ut"
SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputProduction-
ManufacturerModel" ("i"."ManufacturerModelId"),
    "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
    "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
    "ut"."SysStartTime" = @NowTimeStamp,
    "ut"."SysEndTime" = @OpenEndedSysEndTime,
    "ut"."Note" = "i"."Note",
    "ut"."FireAuditTrigger" = 'N'
FROM "Production"."ManufacturerModel" as "ut"
INNER JOIN inserted as "i"
    ON "i"."ManufacturerModelId" = "ut"."ManufacturerModelId"
    AND "i"."TransactionNumber" = "ut"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
INNER JOIN deleted as "d"
    ON "i"."ManufacturerModelId" = "d"."ManufacturerModelId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [Production].[ManufacturerModel] ADD CONSTRAINT [CK_Production_Manufacturer-
Model_FireAuditTrigger] CHECK (([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N'))
GO
ALTER TABLE [Production].[ManufacturerModel] ADD CONSTRAINT [CK_Production_Manufacturer-
Model_SysEndTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Production].[ManufacturerModel] ADD CONSTRAINT [CK_Production_Manufacturer-
Model_SysStartTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Production].[ManufacturerModel] ADD CONSTRAINT [PK_Model_1] PRIMARY KEY
CLUSTERED ([ManufacturerModelId]) ON [PRIMARY]
GO
ALTER TABLE [Production].[ManufacturerModel] ADD CONSTRAINT [FK_ManufacturerModel_-
ManufacturerVehicleMake] FOREIGN KEY ([ManufacturerVehicleMakeId]) REFERENCES
[Production].[ManufacturerVehicleMake] ([ManufacturerVehicleMakeId])
GO
ALTER TABLE [Production].[ManufacturerModel] ADD CONSTRAINT [FK_ManufacturerModel_User-
Authorization] FOREIGN KEY ([UserAuthorizationId]) REFERENCES [DbSecurity].[User-
Authorization] ([UserAuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'The model of a particular vehicle
created by the manufacturer', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel',
NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN',
N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for vehicle
models', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN',
N'ManufacturerModelId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of a vehicle model',
'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'ManufacturerModel-
Name'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'The name of a vehicle model variant if applicable', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'ManufacturerModelVariant'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for vehicle makes', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'ManufacturerVehicleMakeId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'PriorRowLevel-HashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'Sys-EndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'Sys-StartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of database transactions', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-AuthorizationIds', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerModel', 'COLUMN', N'UserAuthorizationId'
GO
```

---

## Uses

[DbSecurity].[UserAuthorization]  
[Production].[ManufacturerVehicleMake]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdVehicleString].[VehicleModelString]  
Production

---

## Used By

[Production].[ManufacturerVehicleStock]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerModel]  
[CustomViews].[uvw\_ChuanModelMake]  
[CustomViews].[uvw\_MehrshadVehicleCost]



Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Tables > Production.ManufacturerModel

[CustomViews].[uvw\_MehrshadYearlyCustomerSales]

[CustomViews].[uvw\_MehrshadYearlySalesProfits]

[CustomViews].[uvw\_RalphMakeModelPartsCost]

[Sales].[uvw\_Sales2018]

[Sales].[uvw\_SalesByCountry]

[Sales].[uvw\_SalesText]

[Sales].[uvw\_StockPrices]

[Sales].[uvw\_YearlySales]

[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]

[Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerModel]

## [Production].[ManufacturerVehicleMake]




### MS\_Description


The company responsible for the production of a vehicle

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 26                                    |
| Created       | 3:47:38 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type                             | Max Length (Bytes) | Nullability  | Default  |
|---|---|---------------------------------------|--------------------|--------------|--|
|   | <b>ManufacturerVehicleMakeId</b><br><i>A unique identifier for vehicle makes</i>        | [sdKey].[SurrogateKeyInteger]         | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenceld-Insert].[Production_ManufacturerVehicleMake_Id]) |
|   | <b>ManufacturerVehicleMakeName</b><br><i>The name of a vehicle make</i>                 | [sdVehicleString].[VehicleMakeString] | 60                 | NOT NULL     |  |
|  | <b>CountryId</b><br><i>A unique identifier for countries</i>                            | [sdKey].[SurrogateKeyInteger]         | 4                  | NOT NULL     |  |
|  | <b>UserAuthorizationId</b><br><i>A unique identifier for UserAuthorization-Ids</i>      | [sdKey].[SurrogateKeyInteger]         | 4                  | NOT NULL     | ((1))  |
|   | <b>SysStartTime</b><br><i>The start time for a system transaction</i>                   | [sdDateTime].[DateTimeStamp]          | 8                  | NULL allowed | (sysdatetime())  |
|   | <b>SysEndTime</b><br><i>The end time for a system transaction</i>                       | [sdDateTime].[DateTimeStamp]          | 8                  | NULL allowed | ('99991231 23:59:59.999999')   |
|   | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i> | [sdHashKey].[RowLevelHashKey]         | 32                 | NULL allowed |  |
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of</i>                | [sdOrdinalNumber].[TransactionNumber] | 4                  | NOT NULL     | ((1))  |

|   | database transactions  |   |     |              |                      |
|---|--|---|-----|--------------|----------------------|
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                          | [sdLongTextString].[Note]                             | 200 | NULL allowed | ('Row was inserted') |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>           | [sdHashKey].[RowLevelHash-Key]                        | 32  | NULL allowed |                      |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i> | [sdFlag].[FlagYesNoString]                            | 1   | NOT NULL     | ('N')                |
|   | <b>MarketingType</b><br><i>The marketing type of a vehicle make</i>                      | [sdVehicleString].[Vehicle-ManufacturerMarketingType] | 50  | NULL allowed |                      |

## Indexes

| Key   | Name    | Key Columns               | Unique |
|---|---------|---------------------------|--------|
|  | PK_Make | ManufacturerVehicleMakeId | True   |

## Triggers

| Name                        | ANSI Nulls On | Quoted Identifier On | On           |
|-----------------------------|---------------|----------------------|--------------|
| uTd_ManufacturerVehicleMake | True          | True                 | After Delete |
| uTi_ManufacturerVehicleMake | True          | True                 | After Insert |
| uTu_ManufacturerVehicleMake | True          | True                 | After Update |

## Check Constraints

| Name   | On Column        | Constraint   |
|--|------------------|--|
| CK_Production_ManufacturerVehicleMake_SysEndTime       |                  | ((SysEndTime]>=[SysStartTime])                     |
| CK_Production_ManufacturerVehicleMake_SysStartTime     |                  | ((SysEndTime]>=[SysStartTime])                     |
| CK_Production_ManufacturerVehicleMake_FireAuditTrigger | FireAuditTrigger | ((FireAuditTrigger]='Y' OR [FireAuditTrigger]='N') |

## Foreign Keys

| Name   | Columns  |
|--|--|
| FK_ManufacturerVehicleMake_Country           | CountryId->[Locale].[Country].[CountryId]                                    |
| FK_ManufacturerVehicleMake_UserAuthorization | UserAuthorizationId->[DbSecurity].[UserAuthorization].[User-AuthorizationId] |

## SQL Script

```
CREATE TABLE [Production].[ManufacturerVehicleMake]
```

```
(
[ManufacturerVehicleMakeId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_-
Production_ManufacturerVehicleMake_Id] DEFAULT (NEXT VALUE FOR [SequenceId-
Insert].[Production_ManufacturerVehicleMake_Id]),
[ManufacturerVehicleMakeName] [sdVehicleString].[VehicleMakeString] NOT NULL,
[CountryId] [sdKey].[SurrogateKeyInteger] NOT NULL,
[UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Production_
ManufacturerVehicleMake_UserAuthorizationId] DEFAULT ((1)),
[SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Production_Manufacturer-
VehicleMake_SysStartTime] DEFAULT (sysdatetime()),
[SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Production_Manufacturer-
VehicleMake_SysEndTime] DEFAULT ('99991231 23:59:59.9999999'),
[RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [DF_-
Production_ManufacturerVehicleMake_TransactionNumber] DEFAULT ((1)),
[Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_Production_ManufacturerVehicle-
Make_Note] DEFAULT ('Row was inserted'),
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_Production_
ManufacturerVehicleMake_FireAuditTrigger] DEFAULT ('N'),
[MarketingType] [sdVehicleString].[VehicleManufacturerMarketingType] NULL
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTd_ManufacturerVehicleMake on Production.Manufacturer-
VehicleMake
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [Production].[uTd_ManufacturerVehicleMake] on [Production].[Manufacturer-
VehicleMake]
WITH
    EXECUTE AS CALLER AFTER DELETE

AS

BEGIN

DECLARE
@NowTimestamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."ProductionManufacturerVehicleMakeHistory"
(
    "d"."ManufacturerVehicleMakeId", "d"."ManufacturerVehicleMakeName", "d"."CountryId",
    "d"."MarketingType", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId",
    "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHash-
```

```
Key", "d"."FireAuditTrigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
)
SELECT
    "d"."ManufacturerVehicleMakeId", "d"."ManufacturerVehicleMakeName", "d"."CountryId",
    "d"."MarketingType",
    "d"."TransactionNumber",
    'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
Transaction Number: ', "d"."TransactionNumber")),
    "d"."UserAuthorizationId",
    "d"."SysStartTime",
    @NowTimeStamp, -- AS SysEndTime
    "d"."RowLevelHashKey",
    "d"."PriorRowLevelHashKey",
    "d"."FireAuditTrigger",
    @NowTimeStamp,
    @DBAction,
    @isDeleted
FROM deleted as "d"
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTi_ManufacturerVehicleMake on Production.Manufacturer-
VehicleMake
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Production].[uTi_ManufacturerVehicleMake] on [Production].[Manufacturer-
VehicleMake]
WITH
    EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
    factually being true
    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputProduction-
ManufacturerVehicleMake"("i"."ManufacturerVehicleMakeId"),
        "ut"."PriorRowLevelHashKey" = null,
        "ut"."Note" = 'Row Inserted',
        "ut"."FireAuditTrigger" = 'N'
    FROM "Production"."ManufacturerVehicleMake" as "ut" --updateTable
    INNER JOIN inserted as "i"
    ON "i"."ManufacturerVehicleMakeId" = "ut"."ManufacturerVehicleMakeId"
        AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
```

```
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTu_ManufacturerVehicleMake on Production.Manufacturer-
VehicleMake
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Production].[uTu_ManufacturerVehicleMake] on [Production].[Manufacturer-
VehicleMake]
WITH
    EXECUTE AS CALLER AFTER UPDATE

AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';

    SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
    FROM deleted as "d"
        INNER JOIN inserted as "i"
            ON "i"."ManufacturerVehicleMakeId" = "d"."ManufacturerVehicleMakeId"
            AND "i"."TransactionNumber" = "d"."TransactionNumber";

    -- Audit only if @FireAuditTrigger = 'Y'
    IF (@FireAuditTrigger = 'Y')
    BEGIN
        -- Insert record into audit table
        INSERT INTO "Audit"."ProductionManufacturerVehicleMakeHistory"
        (
            "d"."ManufacturerVehicleMakeId", "d"."ManufacturerVehicleMakeName", "d"."Country-
            Id", "d"."MarketingType", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorization-
            Id", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHash-
            Key", "d"."FireAuditTrigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
        )
        SELECT
            "d"."ManufacturerVehicleMakeId", "d"."ManufacturerVehicleMakeName", "d"."Country-
            Id", "d"."MarketingType",
            "d"."TransactionNumber",
            coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
            Number")),
            "d"."UserAuthorizationId",
            "d"."SysStartTime",
            @NowTimeStamp,
            "d"."RowLevelHashKey",
            "d"."PriorRowLevelHashKey",
            "d"."FireAuditTrigger",
            @NowTimeStamp,
            @DBAction,
            @isDeleted
        FROM deleted AS "d"
```

```
INNER JOIN inserted AS "i"
ON "i"."ManufacturerVehicleMakeId" = "d"."ManufacturerVehicleMakeId"
AND "i"."TransactionNumber" = "d"."TransactionNumber";

UPDATE "ut"
SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputProduction-
ManufacturerVehicleMake"("i"."ManufacturerVehicleMakeId"),
    "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
    "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
    "ut"."SysStartTime" = @NowTimeStamp,
    "ut"."SysEndTime" = @OpenEndedSysEndTime,
    "ut"."Note" = "i"."Note",
    "ut"."FireAuditTrigger" = 'N'
FROM "Production"."ManufacturerVehicleMake" as "ut"
INNER JOIN inserted as "i"
ON "i"."ManufacturerVehicleMakeId" = "ut"."ManufacturerVehicleMakeId"
AND "i"."TransactionNumber" = "ut"."TransactionNumber"
AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
INNER JOIN deleted as "d"
ON "i"."ManufacturerVehicleMakeId" = "d"."ManufacturerVehicleMakeId"
AND "i"."TransactionNumber" = "d"."TransactionNumber"
AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [Production].[ManufacturerVehicleMake] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleMake_SysEndTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Production].[ManufacturerVehicleMake] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleMake_SysStartTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Production].[ManufacturerVehicleMake] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleMake_FireAuditTrigger] CHECK (([FireAuditTrigger]='Y' OR [FireAudit-
Trigger]='N'))
GO
ALTER TABLE [Production].[ManufacturerVehicleMake] ADD CONSTRAINT [PK_Make] PRIMARY KEY
CLUSTERED ([ManufacturerVehicleMakeId]) ON [PRIMARY]
GO
ALTER TABLE [Production].[ManufacturerVehicleMake] ADD CONSTRAINT [FK_Manufacturer-
VehicleMake_Country] FOREIGN KEY ([CountryId]) REFERENCES [Locale].[Country] ([Country-
Id])
GO
ALTER TABLE [Production].[ManufacturerVehicleMake] ADD CONSTRAINT [FK_Manufacturer-
VehicleMake_UserAuthorization] FOREIGN KEY ([UserAuthorizationId]) REFERENCES [Db-
Security].[UserAuthorization] ([UserAuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'The company responsible for the
production of a vehicle', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake',
NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for countries',
'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'CountryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake',
'COLUMN', N'FireAuditTrigger'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for vehicle makes', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'ManufacturerVehicleMakeId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The name of a vehicle make', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'ManufacturerVehicleMake-Name'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The marketing type of a vehicle make', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'Marketing-Type'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'Prior-RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of database transactions', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-AuthorizationIds', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleMake', 'COLUMN', N'UserAuthorizationId'
GO
```

## Uses

[DbSecurity].[UserAuthorization]  
[Locale].[Country]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleManufacturerMarketingType]  
Production



## Used By

---

[Production].[ManufacturerModel]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleMake]  
[CustomViews].[uvw\_ChuanMakeCountry]  
[CustomViews].[uvw\_ChuanModelMake]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[CustomViews].[uvw\_RalphMakeModelPartsCost]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_SalesText]  
[Sales].[uvw\_StockPrices]  
[Sales].[uvw\_YearlySales]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]  
[Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerVehicleMake]

## [Production].[ManufacturerVehicleStock]








### MS\_Description




A produced physical vehicle that a manufacturer has in stock

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 394                                   |
| Created       | 3:47:38 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type                              | Max Length (Bytes) | Nullability  | Default  |
|---|---|--|--------------------|--------------|--|
|   | ManufacturerVehicleStockId<br><i>A unique identifier for manufacturer vehicle stock</i>                     | [sdKey].[SurrogateKeyInteger]          | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenced-Insert].[Production_Manufacturer-Vehicle-Stock_Id]) |
|  | StockCode<br><i>The stock code of a vehicle</i>   | [sdShortTextString].[Stock-Code]       | 100                | NOT NULL     |  |
|  | Cost<br><i>The cost of a vehicle from the manufacturer</i>  | [sdNumber].[Currency]                  | 9                  | NOT NULL     |  |
|  | RepairsCharge<br><i>The charge for repairs on a vehicle</i>   | [sdNumber].[Currency]                  | 9                  | NOT NULL     |  |
|  | PartsCharge<br><i>The charge for parts on a vehicle</i>   | [sdNumber].[Currency]                  | 9                  | NOT NULL     |  |
|  | DeliveryCharge<br><i>The charge for delivery of a vehicle</i>   | [sdNumber].[Currency]                  | 9                  | NOT NULL     |  |
|  | IsPremiumRoadHandlingPackage<br><i>A flag to determine if a vehicle has a premium road handling package</i> | [sdFlag].[FlagBit]                     | 4                  | NOT NULL     | ((0))  |
|   | VehicleColor<br><i>The color of the vehicle</i>   | [sdVehicleString].[Vehicle-Color]      | 40                 | NOT NULL     |  |
|   | CustomerComment<br><i>A comment added by a customer</i>   | [sdLongTextString].[Customer-Comments] | 400                | NULL allowed |  |

|  |  |  |     |              |                               |
|--|--|--|-----|--------------|-------------------------------|
|   | <b>ModelId</b><br><i>A unique identifier for vehicle models</i>                                | [sdKey].[SurrogateKeyInteger]          | 4   | NOT NULL     |                               |
|  | <b>PurchaseDate</b><br><i>The date of purchase</i>   | [sdDate].[DateYYYYMMDD]                | 3   | NOT NULL     | (sysdatetime())               |
|   | <b>UserAuthorizationId</b><br><i>A unique identifier for UserAuthorization-Ids</i>             | [sdKey].[SurrogateKeyInteger]          | 4   | NOT NULL     | ((1))                         |
|  | <b>SysStartTime</b><br><i>The start time for a system transaction</i>                          | [sdDateTime].[Date-TimeStamp]          | 8   | NULL allowed | (sysdatetime())               |
|  | <b>SysEndTime</b><br><i>The end time for a system transaction</i>                              | [sdDateTime].[Date-TimeStamp]          | 8   | NULL allowed | ('99991231 23:59:59.9999999') |
|  | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i>        | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                               |
|  | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     | ((1))                         |
|  | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed | ('Row was inserted')          |
|  | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                               |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     | ('N')                         |

## Indexes

| Key   | Name                           | Key Columns                | Unique |
|---|--------------------------------|----------------------------|--------|
|  | PK_Stock                       | ManufacturerVehicleStockId | True   |
|   | XAK1Manufacturer_Vehicle_Stock | StockCode                  | True   |

## Triggers

| Name                         | ANSI Nulls On | Quoted Identifier On | On           |
|------------------------------|---------------|----------------------|--------------|
| uTd_ManufacturerVehicleStock | True          | True                 | After Delete |
| uTi_ManufacturerVehicleStock | True          | True                 | After Insert |
| uTu_ManufacturerVehicleStock | True          | True                 | After Update |

## Check Constraints

| Name  | On Column        | Constraint                             |
|---|------------------|--|
| CK_Production_ManufacturerVehicleStock_FireAuditTrigger | FireAuditTrigger | ([FireAuditTrigger]='Y' OR [FireAudit- |

|   |                              |  |
|---|------------------------------|--|
|   |                              | Trigger]='N')  |
| CK_Production_ManufacturerVehicleStock_Cost                         | Cost                         | ([Cost]>=(0))  |
| CK_Production_ManufacturerVehicleStock_DeliveryCharge               | DeliveryCharge               | ([DeliveryCharge]>=(0))  |
| CK_Production_ManufacturerVehicleStock_IsPremiumRoadHandlingPackage | IsPremiumRoadHandlingPackage | ([IsPremiumRoadHandlingPackage]=0)<br>OR [IsPremiumRoadHandlingPackage]=1) |
| CK_Production_ManufacturerVehicleStock_PartsCharge                  | PartsCharge                  | ([PartsCharge]>=(0))   |
| CK_Production_ManufacturerVehicleStock_RepairsCharge                | RepairsCharge                | ([RepairsCharge]>=(0))   |
| CK_Production_ManufacturerVehicleStock_SysEndTime                   |                              | ([SysEndTime]>=[SysStartTime])   |
| CK_Production_ManufacturerVehicleStock_SysStartTime                 |                              | ([SysEndTime]>=[SysStartTime])   |

## Foreign Keys

| Name  | Columns   |
|---|---|
| FK_ManufacturerVehicleStock_ManufacturerModel | ModelId->[Production].[ManufacturerModel].[ManufacturerModelId]             |
| FK_ManufacturerVehicleStock_UserAuthorization | UserAuthorizationId->[DbSecurity].[UserAuthorization].[UserAuthorizationId] |

## SQL Script

```
CREATE TABLE [Production].[ManufacturerVehicleStock]
(
    [ManufacturerVehicleStockId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Production_ManufacturerVehicleStock_Id] DEFAULT (NEXT VALUE FOR [SequenceId-Insert].[Production_ManufacturerVehicleStock_Id]),
    [StockCode] [sdShortTextString].[StockCode] NOT NULL,
    [Cost] [sdNumber].[Currency] NOT NULL,
    [RepairsCharge] [sdNumber].[Currency] NOT NULL,
    [PartsCharge] [sdNumber].[Currency] NOT NULL,
    [DeliveryCharge] [sdNumber].[Currency] NOT NULL,
    [IsPremiumRoadHandlingPackage] [sdFlag].[FlagBit] NOT NULL CONSTRAINT [DF_Production_ManufacturerVehicleStock_IsPremiumRoadHandlingPackage] DEFAULT ((0)),
    [VehicleColor] [sdVehicleString].[VehicleColor] NOT NULL,
    [CustomerComment] [sdLongTextString].[CustomerComments] NULL,
    [ModelId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [PurchaseDate] [sdDate].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_Production_ManufacturerVehicleStock_PurchaseDate] DEFAULT (sysdatetime()),
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Production_ManufacturerVehicleStock_UserAuthorizationId] DEFAULT ((1)),
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Production_ManufacturerVehicleStock_SysStartTime] DEFAULT (sysdatetime()),
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Production_Manufacturer-
```

```
VehicleStock_SysEndTime] DEFAULT ('99991231 23:59:59.9999999'),
[RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [CK_-
Production_ManufacturerVehicleStock_TransactionNumber] DEFAULT ((1)),
[Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_Production_ManufacturerVehicle-
Stock_Note] DEFAULT ('Row was inserted'),
[PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
[FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_Production_-
ManufacturerVehicleStock_FireAuditTrigger] DEFAULT ('N')
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTd_ManufacturerVehicleStock on Production.Manufacturer-
VehicleStock
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [Production].[uTd_ManufacturerVehicleStock] on
[Production].[ManufacturerVehicleStock]
WITH
    EXECUTE AS CALLER AFTER DELETE

AS

BEGIN

DECLARE
@NowTimestamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."ProductionManufacturerVehicleStockHistory"
(
    "d"."ManufacturerVehicleStockId", "d"."StockCode", "d"."ModelId", "d"."Cost",
    "d"."RepairsCharge", "d"."PartsCharge", "d"."DeliveryCharge", "d"."IsPremiumRoad-
HandlingPackage", "d"."VehicleColor", "d"."CustomerComment", "d"."PurchaseDate",
    "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime",
    "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
Trigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
)
SELECT
    "d"."ManufacturerVehicleStockId", "d"."StockCode", "d"."ModelId", "d"."Cost",
    "d"."RepairsCharge", "d"."PartsCharge", "d"."DeliveryCharge", "d"."IsPremiumRoad-
HandlingPackage", "d"."VehicleColor", "d"."CustomerComment", "d"."PurchaseDate",
    "d"."TransactionNumber",
    'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
Transaction Number: ', "d"."TransactionNumber")),
    "d"."UserAuthorizationId",
```

```
"d"."SysStartTime",
@NowTimeStamp, -- AS SysEndTime
"d"."RowLevelHashKey",
"d"."PriorRowLevelHashKey",
"d"."FireAuditTrigger",
@NowTimeStamp,
@DBAction,
@isDeleted
FROM deleted as "d"
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTi_ManufacturerVehicleStock on Production.Manufacturer-
VehicleStock
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Production].[uTi_ManufacturerVehicleStock] on
[Production].[ManufacturerVehicleStock]
WITH
    EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
    factually being true
    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputProduction-
ManufacturerVehicleStock"("i"."ManufacturerVehicleStockId"),
        "ut"."PriorRowLevelHashKey" = null,
        "ut"."Note" = 'Row Inserted',
        "ut"."FireAuditTrigger" = 'N'
    FROM "Production"."ManufacturerVehicleStock" as "ut" --updateTable
    INNER JOIN inserted as "i"
    ON "i"."ManufacturerVehicleStockId" = "ut"."ManufacturerVehicleStockId"
    AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Production.uTu_ManufacturerVehicleStock on Production.Manufacturer-
VehicleStock
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Production].[uTu_ManufacturerVehicleStock] on
```

```
[Production].[ManufacturerVehicleStock]
WITH
    EXECUTE AS CALLER AFTER UPDATE

AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';

    SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
    FROM deleted as "d"
        INNER JOIN inserted as "i"
            ON "i"."ManufacturerVehicleStockId" = "d"."ManufacturerVehicleStockId"
            AND "i"."TransactionNumber" = "d"."TransactionNumber";

    -- Audit only if @FireAuditTrigger = 'Y'
    IF (@FireAuditTrigger = 'Y')
    BEGIN
        -- Insert record into audit table
        INSERT INTO "Audit"."ProductionManufacturerVehicleStockHistory"
            (
                "d"."ManufacturerVehicleStockId", "d"."StockCode", "d"."Model-
                Id", "d"."Cost", "d"."RepairsCharge", "d"."PartsCharge", "d"."DeliveryCharge", "d"."Is-
                PremiumRoadHandlingPackage", "d"."VehicleColor", "d"."CustomerComment", "d"."Purchase-
                Date", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStart-
                Time", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
                Trigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
            )
        SELECT
            "d"."ManufacturerVehicleStockId", "d"."StockCode", "d"."ModelId", "d"."Cost",
            "d"."RepairsCharge", "d"."PartsCharge", "d"."DeliveryCharge", "d"."IsPremiumRoad-
            HandlingPackage", "d"."VehicleColor", "d"."CustomerComment", "d"."PurchaseDate",
            "d"."TransactionNumber",
            coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
            Number")),
            "d"."UserAuthorizationId",
            "d"."SysStartTime",
            @NowTimeStamp,
            "d"."RowLevelHashKey",
            "d"."PriorRowLevelHashKey",
            "d"."FireAuditTrigger",
            @NowTimeStamp,
            @DBAction,
            @isDeleted
        FROM deleted AS "d"
        INNER JOIN inserted AS "i"
            ON "i"."ManufacturerVehicleStockId" = "d"."ManufacturerVehicleStockId"
            AND "i"."TransactionNumber" = "d"."TransactionNumber";

        UPDATE "ut"
        SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputProduction-
```

```
ManufacturerVehicleStock("i"."ManufacturerVehicleStockId"),
    "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
    "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
    "ut"."SysStartTime" = @NowTimeStamp,
    "ut"."SysEndTime" = @OpenEndedSysEndTime,
    "ut"."Note" = "i"."Note",
    "ut"."FireAuditTrigger" = 'N'
FROM "Production"."ManufacturerVehicleStock" as "ut"
INNER JOIN inserted as "i"
    ON "i"."ManufacturerVehicleStockId" = "ut"."ManufacturerVehicleStockId"
    AND "i"."TransactionNumber" = "ut"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
INNER JOIN deleted as "d"
    ON "i"."ManufacturerVehicleStockId" = "d"."ManufacturerVehicleStockId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleStock_FireAuditTrigger] CHECK (([FireAuditTrigger]='Y' OR [FireAudit
Trigger]='N'))
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleStock_Cost] CHECK (([Cost]>=(0)))
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleStock_DeliveryCharge] CHECK (([DeliveryCharge]>=(0)))
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleStock_IsPremiumRoadHandlingPackage] CHECK (([IsPremiumRoadHandling
Package]=(0) OR [IsPremiumRoadHandlingPackage]=(1)))
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleStock_PartsCharge] CHECK (([PartsCharge]>=(0)))
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleStock_RepairsCharge] CHECK (([RepairsCharge]>=(0)))
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleStock_SysEndTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [CK_Production_
ManufacturerVehicleStock_SysStartTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [PK_Stock] PRIMARY
KEY CLUSTERED ([ManufacturerVehicleStockId]) ON [PRIMARY]
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [XAK1Manufacturer_
Vehicle_Stock] UNIQUE NONCLUSTERED ([StockCode]) ON [PRIMARY]
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [FK_Manufacturer-
VehicleStock_ManufacturerModel] FOREIGN KEY ([ModelId]) REFERENCES
[Production].[ManufacturerModel] ([ManufacturerModelId])
GO
ALTER TABLE [Production].[ManufacturerVehicleStock] ADD CONSTRAINT [FK_Manufacturer-
VehicleStock_UserAuthorization] FOREIGN KEY ([UserAuthorizationId]) REFERENCES [Db-
```



```
Security].[UserAuthorization] ([UserAuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'A produced physical vehicle that a manufacturer has in stock', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'The cost of a vehicle from the manufacturer', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'Cost'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A comment added by a customer', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'Customer-Comment'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The charge for delivery of a vehicle', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'Delivery-Charge'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger should be fired', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to determine if a vehicle has a premium road handling package', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'IsPremiumRoadHandlingPackage'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for manufacturer vehicle stock', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'ManufacturerVehicleStockId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for vehicle models', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'ModelId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The charge for parts on a vehicle', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'PartsCharge'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'Prior-RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The date of purchase', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'PurchaseDate'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The charge for repairs on a vehicle', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'Repairs-Charge'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The stock code of a vehicle', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'StockCode'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
```

```
transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN',
N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN',
N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock',
'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Production', 'TABLE', N'ManufacturerVehicleStock',
'COLUMN', N'UserAuthorizationId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The color of the vehicle', 'SCHEMA',
N'Production', 'TABLE', N'ManufacturerVehicleStock', 'COLUMN', N'VehicleColor'
GO
```

---

## Uses

[DbSecurity].[UserAuthorization]  
[Production].[ManufacturerModel]  
[sdDate].[DateYYYYMMDD]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagBit]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[CustomerComments]  
[sdLongTextString].[Note]  
[sdNumber].[Currency]  
[sdOrdinalNumber].[TransactionNumber]  
[sdShortTextString].[StockCode]  
[sdVehicleString].[VehicleColor]  
Production

---

## Used By

[Sales].[SalesOrderVehicleDetail]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleStock]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[CustomViews].[uvw\_RalphMakeModelPartsCost]  
[Sales].[uvw\_PivotTable]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_SalesText]  
[Sales].[uvw\_StockPrices]  
[Sales].[uvw\_YearlySales]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
[Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerVehicleStock]

## [Sales].[Customer]






### MS\_Description



A person who purchases a vehicle from the business

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 88                                    |
| Created       | 3:47:37 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type                                       | Max Length (Bytes) | Nullability  | Default  |
|---|---|---|--------------------|--------------|--|
|   | CustomerId<br><i>A unique identifier for customers</i>                        | [sdKey].[SurrogateKeyInteger]                   | 4                  | NOT NULL     | (NEXT VALUE FOR [SequenceId-Insert].[Sales_Customer_Id]) |
|  | CustomerName<br><i>The full name of a customer</i>                            | [sdNameString].[Customer-Name]                  | 130                | NOT NULL     |  |
|   | CustomerAddress1<br><i>The street address of a customer</i>                   | [sdAddressesString].[Address-String]            | 120                | NOT NULL     |  |
|   | CustomerAddress2<br><i>The extended street address of a customer</i>          | [sdAddressesString].[Address-String]            | 120                | NULL allowed |  |
|   | CustomerTown<br><i>The town or city a customer resides in</i>                 | [sdAddressesString].[Town-String]               | 60                 | NOT NULL     |  |
|   | CustomerPostalCode<br><i>The postal code of a customer if applicable</i>      | [sdAddressesString].[Postal-CodeString]         | 18                 | NULL allowed |  |
|  | CountryId<br><i>A unique identifier for countries</i>                         | [sdKey].[SurrogateKeyInteger]                   | 4                  | NOT NULL     |  |
|  | IsCustomerReseller<br><i>Flag to determine if a customer is a reseller</i>    | [sdFlag].[FlagBit]                              | 4                  | NOT NULL     |  |
|  | IsCustomerCreditRisk<br><i>Flag to determine if customer is a credit risk</i> | [sdFlag].[FlagBit]                              | 4                  | NOT NULL     |  |
|   | SpendCapacity   | [sdMarketingText-String].[CustomerSpend-String] | 30                 | NULL         |  |

|   |   |  |     |              |                              |
|---|---|--|-----|--------------|------------------------------|
|   | <i>The spend capacity of a customer</i>   | Capacity]                              |     | allowed      |                              |
|  | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i>             | [sdKey].[SurrogateKeyInteger]          | 4   | NOT NULL     | ((1))                        |
|   | SysStartTime<br><i>The start time for a system transaction</i>                          | [sdDateTime].[Date-Timestamp]          | 8   | NULL allowed | (sysdatetime())              |
|   | SysEndTime<br><i>The end time for a system transaction</i>                              | [sdDateTime].[Date-Timestamp]          | 8   | NULL allowed | ('99991231 23:59:59.999999') |
|   | RowLevelHashKey<br><i>Current row hash key representing all combined columns</i>        | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                              |
|   | TransactionNumber<br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     | ((1))                        |
|   | Note<br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed | ('Row was inserted')         |
|   | PriorRowLevelHashKey<br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                              |
|  | FireAuditTrigger<br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     | ('N')                        |

## Indexes

| Key   | Name         | Key Columns  | Unique |
|---|--------------|--------------|--------|
|  | PK_Customer  | CustomerId   | True   |
|   | XIE1Customer | CustomerName |        |

## Triggers

| Name         | ANSI Nulls On | Quoted Identifier On | On           |
|--------------|---------------|----------------------|--------------|
| uTd_Customer | True          | True                 | After Delete |
| uTi_Customer | True          | True                 | After Insert |
| uTu_Customer | True          | True                 | After Update |

## Check Constraints

| Name                                 | On Column            | Constraint   |
|--------------------------------------|----------------------|--|
| BCK_TemplateTable_ValidBit_161407054 | IsCustomerCreditRisk | ([IsCustomerCreditRisk]=(0) OR [IsCustomerCreditRisk]=(1)) |
| CK_Sales_Customer_FireAuditTrigger   | FireAuditTrigger     | ([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N')         |
| CK_Sales_Customer_IsCustomerReseller | IsCustomerReseller   | ([IsCustomerReseller]=(0) OR [IsCustomerReseller]=(1))     |

|                                |  |                                |
|--------------------------------|--|--------------------------------|
| CK_Sales_Customer_SysEndTime   |  | ([SysEndTime]>=[SysStartTime]) |
| CK_Sales_Customer_SysStartTime |  | ([SysEndTime]>=[SysStartTime]) |

## Foreign Keys

| Name                          | Columns   |
|-------------------------------|---|
| FK_Customer_Country           | CountryId->[Locale].[Country].[CountryId]                                   |
| FK_Customer_UserAuthorization | UserAuthorizationId->[DbSecurity].[UserAuthorization].[UserAuthorizationId] |

## SQL Script

```
CREATE TABLE [Sales].[Customer]
(
    [CustomerId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Sales_Customer_Id]
    DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[Sales_Customer_Id]),
    [CustomerName] [sdNameString].[CustomerName] NOT NULL,
    [CustomerAddress1] [sdAddressesString].[AddressString] NOT NULL,
    [CustomerAddress2] [sdAddressesString].[AddressString] NULL,
    [CustomerTown] [sdAddressesString].[TownString] NOT NULL,
    [CustomerPostalCode] [sdAddressesString].[PostalCodeString] NULL,
    [CountryId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [IsCustomerReseller] [sdFlag].[FlagBit] NOT NULL,
    [IsCustomerCreditRisk] [sdFlag].[FlagBit] NOT NULL,
    [SpendCapacity] [sdMarketingTextString].[CustomerSpendCapacity] NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Sales_
    Customer_UserAuthorizationId] DEFAULT ((1)),
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Sales_Customer_SysStart-
    Time] DEFAULT (sysdatetime()),
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Sales_Customer_SysEnd-
    Time] DEFAULT ('99991231 23:59:59.9999999'),
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [DF_-
    Sales_Customer_TransactionNumber] DEFAULT ((1)),
    [Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_Sales_Customer_Note] DEFAULT ('Row
    was inserted'),
    [PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_Sales_Customer_-
    FireAuditTrigger] DEFAULT ('N')
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTd_Customer on Sales.Customer
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [Sales].[uTd_Customer] on [Sales].[Customer]
```

```
WITH
    EXECUTE AS CALLER AFTER DELETE

AS

BEGIN

DECLARE
@NowTimestamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."SalesCustomerHistory"
(
    "d"."CustomerId", "d"."CustomerName", "d"."CustomerAddress1", "d"."CustomerAddress2",
    "d"."CustomerTown", "d"."CustomerPostalCode", "d"."CountryId", "d"."IsCustomer-
Reseller", "d"."IsCustomerCreditRisk", "d"."SpendCapacity", "d"."TransactionNumber",
    "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."Row-
LevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger", "d"."AuditDateTime-
Stamp", "d"."DBAction", "d"."isDeleted"
)
SELECT
    "d"."CustomerId", "d"."CustomerName", "d"."CustomerAddress1", "d"."CustomerAddress2",
    "d"."CustomerTown", "d"."CustomerPostalCode", "d"."CountryId", "d"."IsCustomer-
Reseller", "d"."IsCustomerCreditRisk", "d"."SpendCapacity",
    "d"."TransactionNumber",
    'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
Transaction Number: ', "d"."TransactionNumber")),
    "d"."UserAuthorizationId",
    "d"."SysStartTime",
    @NowTimeStamp, -- AS SysEndTime
    "d"."RowLevelHashKey",
    "d"."PriorRowLevelHashKey",
    "d"."FireAuditTrigger",
    @NowTimeStamp,
    @DBAction,
    @isDeleted
FROM deleted as "d"
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTi_Customer on Sales.Customer
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Sales].[uTi_Customer] on [Sales].[Customer]
WITH
```

```
EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
    factually being true
    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputSales-
Customer"("i"."CustomerId"),
        "ut"."PriorRowLevelHashKey" = null,
        "ut"."Note" = 'Row Inserted',
        "ut"."FireAuditTrigger" = 'N'
    FROM "Sales"."Customer" as "ut" --updateTable
    INNER JOIN inserted as "i"
    ON "i"."CustomerId" = "ut"."CustomerId"
    AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTu_Customer on Sales.Customer
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Sales].[uTu_Customer] on [Sales].[Customer]
WITH
    EXECUTE AS CALLER AFTER UPDATE

AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';

    SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
    FROM deleted as "d"
    INNER JOIN inserted as "i"
    ON "i"."CustomerId" = "d"."CustomerId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber";

    -- Audit only if @FireAuditTrigger = 'Y'
    IF (@FireAuditTrigger = 'Y')
    BEGIN
        -- Insert record into audit table
        INSERT INTO "Audit"."SalesCustomerHistory"
        (
            "d"."CustomerId", "d"."CustomerName", "d"."CustomerAddress1", "d"."Customer-
Address2", "d"."CustomerTown", "d"."CustomerPostalCode", "d"."CountryId", "d"."IsCustomer-
```

```
Reseller", "d"."IsCustomerCreditRisk", "d"."SpendCapacity", "d"."Transaction-
Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEnd-
Time", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger",
"d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
)
SELECT
    "d"."CustomerId", "d"."CustomerName", "d"."CustomerAddress1", "d"."Customer-
Address2", "d"."CustomerTown", "d"."CustomerPostalCode", "d"."CountryId", "d"."Is-
CustomerReseller", "d"."IsCustomerCreditRisk", "d"."SpendCapacity",
    "d"."TransactionNumber",
    coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
Number")),
    "d"."UserAuthorizationId",
    "d"."SysStartTime",
    @NowTimeStamp,
    "d"."RowLevelHashKey",
    "d"."PriorRowLevelHashKey",
    "d"."FireAuditTrigger",
    @NowTimeStamp,
    @DBAction,
    @isDeleted
FROM deleted AS "d"
INNER JOIN inserted AS "i"
ON "i"."CustomerId" = "d"."CustomerId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber";

UPDATE "ut"
SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputSales-
Customer"("i"."CustomerId"),
    "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
    "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
    "ut"."SysStartTime" = @NowTimeStamp,
    "ut"."SysEndTime" = @OpenEndedSysEndTime,
    "ut"."Note" = "i"."Note",
    "ut"."FireAuditTrigger" = 'N'
FROM "Sales"."Customer" as "ut"
INNER JOIN inserted as "i"
    ON "i"."CustomerId" = "ut"."CustomerId"
    AND "i"."TransactionNumber" = "ut"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
INNER JOIN deleted as "d"
    ON "i"."CustomerId" = "d"."CustomerId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [Sales].[Customer] ADD CONSTRAINT [BCK_TemplateTable_ValidBit_161407054]
CHECK (([IsCustomerCreditRisk]=(0) OR [IsCustomerCreditRisk]=(1)))
GO
ALTER TABLE [Sales].[Customer] ADD CONSTRAINT [CK_Sales_Customer_FireAuditTrigger]
CHECK (([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N'))
GO
ALTER TABLE [Sales].[Customer] ADD CONSTRAINT [CK_Sales_Customer_IsCustomerReseller]
CHECK (([IsCustomerReseller]=(0) OR [IsCustomerReseller]=(1)))
```



```
GO
ALTER TABLE [Sales].[Customer] ADD CONSTRAINT [CK_Sales_Customer_SysEndTime] CHECK
([SysEndTime]>=[SysStartTime])
GO
ALTER TABLE [Sales].[Customer] ADD CONSTRAINT [CK_Sales_Customer_SysStartTime] CHECK
([SysEndTime]>=[SysStartTime])
GO
ALTER TABLE [Sales].[Customer] ADD CONSTRAINT [PK_Customer] PRIMARY KEY CLUSTERED
([CustomerId]) ON [PRIMARY]
GO
CREATE NONCLUSTERED INDEX [XIE1Customer] ON [Sales].[Customer] ([CustomerName]) ON
[PRIMARY]
GO
ALTER TABLE [Sales].[Customer] ADD CONSTRAINT [FK_Customer_Country] FOREIGN KEY
([CountryId]) REFERENCES [Locale].[Country] ([CountryId])
GO
ALTER TABLE [Sales].[Customer] ADD CONSTRAINT [FK_Customer_UserAuthorization] FOREIGN
KEY ([UserAuthorizationId]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'A person who purchases a vehicle from
the business', 'SCHEMA', N'Sales', 'TABLE', N'Customer', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for countries',
'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'CountryId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The street address of a customer',
'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'CustomerAddress1'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The extended street address of a
customer', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'CustomerAddress2'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for customers',
'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'CustomerId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The full name of a customer',
'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'CustomerName'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The postal code of a customer if
applicable', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'CustomerPostalCode'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The town or city a customer resides
in', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'CustomerTown'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'FireAudit-
Trigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag to determine if customer is a
credit risk', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'IsCustomerCredit-
Risk'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Flag to determine if a customer is a
reseller', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'IsCustomerReseller'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'Note'
GO
```

```
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'PriorRowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The spend capacity of a customer', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'SpendCapacity'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system transaction', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'SysEndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system transaction', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'SysStartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of database transactions', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for UserAuthorizationIds', 'SCHEMA', N'Sales', 'TABLE', N'Customer', 'COLUMN', N'UserAuthorizationId'
GO
```

## Uses

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[DbSecurity].[UserAuthorization]  
[Locale].[Country]  
[sdAddressesString].[AddressString]  
[sdAddressesString].[PostalCodeString]  
[sdAddressesString].[TownString]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagBit]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdMarketingTextString].[CustomerSpendCapacity]  
[sdNameString].[CustomerName]  
[sdOrdinalNumber].[TransactionNumber]  
Sales

## Used By

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[Sales].[SalesOrderVehicle]  
[Audit].[vwFindUniqueTablePkySalesCustomer]  
[CustomViews].[uvw\_ChuanCustomerCountry]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_SalesText]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Tables > Sales.Customer

[Sales].[uvw\_YearlySales]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]

[Hashing].[CreateSha256KeyFromJsonInputSalesCustomer]

## [Sales].[SalesCategoryThreshold]



### MS\_Description


The classification of vehicle categories based on price range

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 6                                     |
| Created       | 3:47:39 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name   | Data Type                      | Persisted | Computed | Max Length (Bytes) | Nullability  | Default  |
|---|--|--------------------------------|-----------|----------|--------------------|--------------|--|
|   | SalesCategoryThresholdId<br><i>A unique identifier for SalesCategoryThresholdIds</i> | [sdKey].[SurrogateKey-Integer] |           |          | 4                  | NOT NULL     | (NEXT VALUE FOR [Sequenced-Insert].[Sales_SalesCategory-Threshold_Id]) |
|   | LowerThreshold<br><i>The lowest amount a vehicle in a category is sold for</i>       | [sdNumber].[Currency]          |           |          | 9                  | NOT NULL     |  |
|   | UpperThreshold<br><i>The highest amount this vehicle was sold for</i>                | [sdNumber].[Currency]          |           |          | 9                  | NOT NULL     |  |
|   | CategoryDescription<br><i>The category description a vehicle sales threshold</i>     | varchar(11)                    | True      | True     | 11                 | NOT NULL     |  |
|  | UserAuthorizationId<br><i>A unique identifier for UserAuthorizationIds</i>           | [sdKey].[SurrogateKey-Integer] |           |          | 4                  | NOT NULL     | ((1))  |
|   | SysStartTime<br><i>The start time for a system transaction</i>                       | [sdDateTime].[Date-Timestamp]  |           |          | 8                  | NULL allowed | (sysdatetime())  |
|   | SysEndTime<br><i>The end time for a system transaction</i>                           | [sdDateTime].[Date-Timestamp]  |           |          | 8                  | NULL allowed | ('99991231 23:59:59.999999')   |

|   |  |   |  |  |     |              |                      |
|---|--|---|--|--|-----|--------------|----------------------|
|   | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i>        | [sdHashKey].[RowLevelHashKey]           |  |  | 32  | NULL allowed |                      |
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[Transaction-Number] |  |  | 4   | NOT NULL     | ((1))                |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongText-String].[Note]              |  |  | 200 | NULL allowed | ('Row was inserted') |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHashKey]           |  |  | 32  | NULL allowed |                      |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNo-String]             |  |  | 1   | NOT NULL     | ('N')                |

### Computed columns

| Name                | Column definition  |
|---------------------|--|
| CategoryDescription | (case when [LowerThreshold]>=(100001.00) then 'Very High' when [LowerThreshold]>=(75001.00) AND [LowerThreshold]<=(100000.00) then 'High' when [LowerThreshold]>=(50001.00) AND [LowerThreshold]<=(75000.00) then 'Medium' when [LowerThreshold]>=(25001.00) AND [LowerThreshold]<=(50000.00) then 'Low' when [LowerThreshold]>=(150001.00) AND [LowerThreshold]<=(250000.00) then 'Exceptional' when [LowerThreshold]>=(100001.00) AND [LowerThreshold]<=(150000.00) then 'Very High' when [LowerThreshold]>=(100.00) AND [LowerThreshold]<=(25000.00) then 'Very Low' else 'Unknown' end COLLATE SQL_Latin1_General_CP1_CI_AS) |

### Indexes

| Key   | Name                        | Key Columns              | Unique |
|---|-----------------------------|--------------------------|--------|
|  | XPKSales_Category_Threshold | SalesCategoryThresholdId | True   |

### Triggers

| Name                       | ANSI Nulls On | Quoted Identifier On | On           |
|----------------------------|---------------|----------------------|--------------|
| uTd_SalesCategoryThreshold | True          | True                 | After Delete |
| uTi_SalesCategoryThreshold | True          | True                 | After Insert |
| uTu_SalesCategoryThreshold | True          | True                 | After Update |

### Check Constraints

| Name   | On Column        | Constraint   |
|--|------------------|--|
| CK_Sales_SalesCategoryThreshold_FireAuditTrigger | FireAuditTrigger | ([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N') |
| CK_Sales_SalesCategoryThreshold_SysEndTime       |                  | ([SysEndTime]>=[SysStartTime])                     |

|  |  |                                |
|--|--|--------------------------------|
| CK_Sales_SalesCategoryThreshold_SysStartTime |  | ([SysEndTime]>=[SysStartTime]) |
|--|--|--------------------------------|

## Foreign Keys

| Name  | Columns   |
|---|---|
| FK_SalesCategoryThreshold_UserAuthorization | UserAuthorizationId->[DbSecurity].[UserAuthorization].[UserAuthorizationId] |

## SQL Script

```
CREATE TABLE [Sales].[SalesCategoryThreshold]
(
    [SalesCategoryThresholdId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Sales_
SalesCategoryThresholdId] DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[Sales_Sales-
CategoryThreshold_Id]),
    [LowerThreshold] [sdNumber].[Currency] NOT NULL,
    [UpperThreshold] [sdNumber].[Currency] NOT NULL,
    [CategoryDescription] AS (case when [LowerThreshold]>=(100001.00) then 'Very High'
when [LowerThreshold]>=(75001.00) AND [LowerThreshold]<=(100000.00) then 'High' when
[LowerThreshold]>=(50001.00) AND [LowerThreshold]<=(75000.00) then 'Medium' when [Lower-
Threshold]>=(25001.00) AND [LowerThreshold]<=(50000.00) then 'Low' when [Lower-
Threshold]>=(150001.00) AND [LowerThreshold]<=(250000.00) then 'Exceptional' when
[LowerThreshold]>=(100001.00) AND [LowerThreshold]<=(150000.00) then 'Very High' when
[LowerThreshold]>=(100.00) AND [LowerThreshold]<=(25000.00) then 'Very Low' else
'Unknown' end COLLATE SQL_Latin1_General_CP1_CI_AS) PERSISTED NOT NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Sales_Sales-
CategoryThreshold_UserAuthorizationId] DEFAULT ((1)),
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Sales_SalesCategory-
Threshold_SysStartTime] DEFAULT (sysdatetime()),
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Sales_SalesCategory-
Threshold_SysEndTime] DEFAULT ('99991231 23:59:59.9999999'),
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [DF_-
Sales_SalesCategoryThreshold_TransactionNumber] DEFAULT ((1)),
    [Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_Sales_SalesCategoryThreshold_Note]
DEFAULT ('Row was inserted'),
    [PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_Sales_Sales-
CategoryThreshold_FireAuditTrigger] DEFAULT ('N')
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTd_SalesCategoryThreshold on Sales.SalesCategoryThreshold
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [Sales].[uTd_SalesCategoryThreshold] on [Sales].[SalesCategoryThreshold]
WITH
EXECUTE AS CALLER AFTER DELETE
```

```
AS

BEGIN

DECLARE
@NowTimestamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."SalesSalesCategoryThresholdHistory"
(
    "d"."SalesCategoryThresholdId", "d"."LowerThreshold", "d"."UpperThreshold",
    "d"."CategoryDescription", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorization-
    Id", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevel-
    HashKey", "d"."FireAuditTrigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."is-
    Deleted"
)
SELECT
    "d"."SalesCategoryThresholdId", "d"."LowerThreshold", "d"."UpperThreshold",
    "d"."CategoryDescription",
    "d"."TransactionNumber",
    'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
    Transaction Number: ', "d"."TransactionNumber")),
    "d"."UserAuthorizationId",
    "d"."SysStartTime",
    "d"."SysEndTime",
    @NowTimestamp, -- AS SysEndTime
    "d"."RowLevelHashKey",
    "d"."PriorRowLevelHashKey",
    "d"."FireAuditTrigger",
    @NowTimestamp,
    @DBAction,
    @isDeleted
FROM deleted as "d"
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTi_SalesCategoryThreshold on Sales.SalesCategoryThreshold
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Sales].[uTi_SalesCategoryThreshold] on [Sales].[SalesCategoryThreshold]
WITH
    EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
```

```
factually being true
UPDATE "ut"
SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputSalesSales-
CategoryThreshold"("i"."SalesCategoryThresholdId"),
    "ut"."PriorRowLevelHashKey" = null,
    "ut"."Note" = 'Row Inserted',
    "ut"."FireAuditTrigger" = 'N'
FROM "Sales"."SalesCategoryThreshold" as "ut" --updateTable
INNER JOIN inserted as "i"
ON "i"."SalesCategoryThresholdId" = "ut"."SalesCategoryThresholdId"
AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTu_SalesCategoryThreshold on Sales.SalesCategoryThreshold
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Sales].[uTu_SalesCategoryThreshold] on [Sales].[SalesCategoryThreshold]
WITH
    EXECUTE AS CALLER AFTER UPDATE

AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';

    SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
    FROM deleted as "d"
        INNER JOIN inserted as "i"
            ON "i"."SalesCategoryThresholdId" = "d"."SalesCategoryThresholdId"
            AND "i"."TransactionNumber" = "d"."TransactionNumber";

    -- Audit only if @FireAuditTrigger = 'Y'
    IF (@FireAuditTrigger = 'Y')
    BEGIN
        -- Insert record into audit table
        INSERT INTO "Audit"."SalesSalesCategoryThresholdHistory"
        (
            "d"."SalesCategoryThresholdId", "d"."LowerThreshold", "d"."Upper-
            Threshold", "d"."CategoryDescription", "d"."TransactionNumber", "d"."Note", "d"."User-
            AuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."Prior-
            RowLevelHashKey", "d"."FireAuditTrigger", "d"."AuditDateTimeStamp", "d"."DBAction",
            "d"."isDeleted"
        )
    )

```



```
SELECT
    "d"."SalesCategoryThresholdId", "d"."LowerThreshold", "d"."UpperThreshold",
    "d"."CategoryDescription",
    "d"."TransactionNumber",
    coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
Number")),
    "d"."UserAuthorizationId",
    "d"."SysStartTime",
    @NowTimeStamp,
    "d"."RowLevelHashKey",
    "d"."PriorRowLevelHashKey",
    "d"."FireAuditTrigger",
    @NowTimeStamp,
    @DBAction,
    @isDeleted
FROM deleted AS "d"
INNER JOIN inserted AS "i"
ON "i"."SalesCategoryThresholdId" = "d"."SalesCategoryThresholdId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber";

UPDATE "ut"
SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputSalesSales-
CategoryThreshold"("i"."SalesCategoryThresholdId"),
    "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
    "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
    "ut"."SysStartTime" = @NowTimeStamp,
    "ut"."SysEndTime" = @OpenEndedSysEndTime,
    "ut"."Note" = "i"."Note",
    "ut"."FireAuditTrigger" = 'N'
FROM "Sales"."SalesCategoryThreshold" as "ut"
INNER JOIN inserted as "i"
    ON "i"."SalesCategoryThresholdId" = "ut"."SalesCategoryThresholdId"
    AND "i"."TransactionNumber" = "ut"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
INNER JOIN deleted as "d"
    ON "i"."SalesCategoryThresholdId" = "d"."SalesCategoryThresholdId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [Sales].[SalesCategoryThreshold] ADD CONSTRAINT [CK_Sales_SalesCategory-
Threshold_FireAuditTrigger] CHECK (([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N'))
GO
ALTER TABLE [Sales].[SalesCategoryThreshold] ADD CONSTRAINT [CK_Sales_SalesCategory-
Threshold_SysEndTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Sales].[SalesCategoryThreshold] ADD CONSTRAINT [CK_Sales_SalesCategory-
Threshold_SysStartTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Sales].[SalesCategoryThreshold] ADD CONSTRAINT [XPKSales_Category_-
Threshold] PRIMARY KEY CLUSTERED ([SalesCategoryThresholdId]) ON [PRIMARY]
GO
ALTER TABLE [Sales].[SalesCategoryThreshold] ADD CONSTRAINT [FK_SalesCategoryThreshold_
UserAuthorization] FOREIGN KEY ([UserAuthorizationId]) REFERENCES [DbSecurity].[User-
```

```
Authorization] ([UserAuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'The classification of vehicle categories based on price range', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategory-Threshold', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'The category description a vehicle sales threshold', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'CategoryDescription'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger should be fired', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The lowest amount a vehicle in a category is sold for', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'LowerThreshold'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash key', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'PriorRowLevel-HashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all combined columns', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for SalesCategory-ThresholdIds', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'SalesCategoryThresholdId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'Sys-EndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'Sys-StartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of database transactions', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The highest amount this vehicle was sold for', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'Upper-Threshold'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-AuthorizationIds', 'SCHEMA', N'Sales', 'TABLE', N'SalesCategoryThreshold', 'COLUMN', N'UserAuthorizationId'
GO
```

## Uses

[DbSecurity].[UserAuthorization]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Tables > Sales.SalesCategoryThreshold

[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdNumber].[Currency]  
[sdOrdinalNumber].[TransactionNumber]  
Sales

### Used By

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[Sales].[SalesOrderVehicle]  
[Audit].[vwFindUniqueTablePkySalesSalesCategoryThreshold]  
[CustomViews].[uvw\_RalphSalesPerCategoryThreshold]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold]  
[Hashing].[CreateSha256KeyFromJsonInputSalesSalesCategoryThreshold]

## [Sales].[SalesOrderVehicle]






### MS\_Description



An order for the purchase of a vehicle

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 324                                   |
| Created       | 3:47:40 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Key   | Name  | Data Type                            | Max Length (Bytes) | Nullability  | Default   |
|---|---|--------------------------------------|--------------------|--------------|---|
|   | SalesOrderVehicleId<br><i>A unique identifier for a purchase</i>            | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     | (NEXT VALUE FOR [SequenceId-Insert].[Sales_SalesOrderVehicle_Id]) |
|  | CustomerId<br><i>A unique identifier for customers</i>                      | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |   |
|  | StaffId<br><i>A unique identifier for staff members</i>                     | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     |   |
|   | InvoiceNumber<br><i>The invoice number of an order</i>                      | [sdShortTextString].[Invoice-Number] | 8                  | NOT NULL     |   |
|  | TotalSalePrice<br><i>The total sale price of an order</i>                   | [sdNumber].[Currency]                | 9                  | NOT NULL     | ((0))   |
|   | SaleDate<br><i>The date an order was made</i>                               | [sdDate].[DateYYYYMMDD]              | 3                  | NOT NULL     | (sysdatetime())   |
|  | UserAuthorizationId<br><i>A unique identifier for UserAuthorization-Ids</i> | [sdKey].[SurrogateKeyInteger]        | 4                  | NOT NULL     | ((1))   |
|   | SysStartTime<br><i>The start time for a system transaction</i>              | [sdDateTime].[Date-TimeStamp]        | 8                  | NULL allowed | (sysdatetime())   |
|   | SysEndTime<br><i>The end time for a system transaction</i>                  | [sdDateTime].[Date-TimeStamp]        | 8                  | NULL allowed | ('99991231 23:59:59.999999')                                      |

|   |  |  |     |              |                      |
|---|--|--|-----|--------------|----------------------|
|   | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i>        | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                      |
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[TransactionNumber] | 4   | NOT NULL     | ((1))                |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongTextString].[Note]              | 200 | NULL allowed | ('Row was inserted') |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[RowLevelHash-Key]         | 32  | NULL allowed |                      |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNoString]             | 1   | NOT NULL     | ('N')                |
|  | <b>SalesCategoryThresholdId</b><br><i>A unique identifier for SalesCategory-ThresholdIds</i>   | [sdKey].[SurrogateKeyInteger]          | 4   | NULL allowed |                      |

## Indexes

| Key   | Name                   | Key Columns         | Unique |
|---|------------------------|---------------------|--------|
|  | XPKSales_Order_Vehicle | SalesOrderVehicleId | True   |

## Triggers

| Name                  | ANSI Nulls On | Quoted Identifier On | On           |
|-----------------------|---------------|----------------------|--------------|
| uTd_SalesOrderVehicle | True          | True                 | After Delete |
| uTi_SalesOrderVehicle | True          | True                 | After Insert |
| uTu_SalesOrderVehicle | True          | True                 | After Update |

## Check Constraints

| Name  | On Column        | Constraint  |
|---|------------------|---|
| CK_Sales_SalesOrderVehicle_FireAuditTrigger | FireAuditTrigger | ([FireAuditTrigger]='Y' OR [FireAudit-Trigger]='N') |
| CK_Sales_SalesOrderVehicle_SysEndTime       |                  | ([SysEndTime]>=[SysStartTime])                      |
| CK_Sales_SalesOrderVehicle_SysStartTime     |                  | ([SysEndTime]>=[SysStartTime])                      |
| CK_Sales_SalesOrderVehicle_TotalSalePrice   | TotalSalePrice   | ([TotalSalePrice]>=(0))                             |

## Foreign Keys

| Name  | Columns  |
|---|--|
| FK_SalesOrderVehicle_Customer               | CustomerId->[Sales].[Customer].[CustomerId]  |
| FK_SalesOrderVehicle_SalesCategoryThreshold | SalesCategoryThresholdId->[Sales].[SalesCategory-Threshold].[SalesCategoryThresholdId] |

|  |   |
|--|---|
| FK_SalesOrderVehicle_Staff             | StaffId->[HumanResources].[Staff].[StaffId]                                 |
| FK_SalesOrderVehicle_UserAuthorization | UserAuthorizationId->[DbSecurity].[UserAuthorization].[UserAuthorizationId] |

## SQL Script

```
CREATE TABLE [Sales].[SalesOrderVehicle]
(
    [SalesOrderVehicleId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_Id] DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[Sales_SalesOrderVehicle_Id]),
    [CustomerId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [StaffId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [InvoiceNumber] [sdShortTextString].[InvoiceNumber] NOT NULL,
    [TotalSalePrice] [sdNumber].[Currency] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_TotalSalePrice] DEFAULT ((0)),
    [SaleDate] [sdDate].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_SaleDate] DEFAULT (sysdatetime()),
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_UserAuthorizationId] DEFAULT ((1)),
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_SysStartTime] DEFAULT (sysdatetime()),
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_SysEndTime] DEFAULT ('99991231 23:59:59.9999999'),
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_TransactionNumber] DEFAULT ((1)),
    [Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_Note] DEFAULT ('Row was inserted'),
    [PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicle_FireAuditTrigger] DEFAULT ('N'),
    [SalesCategoryThresholdId] [sdKey].[SurrogateKeyInteger] NULL
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTd_SalesOrderVehicle on Sales.SalesOrderVehicle
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [Sales].[uTd_SalesOrderVehicle] on [Sales].[SalesOrderVehicle]
WITH
    EXECUTE AS CALLER AFTER DELETE

AS

BEGIN

DECLARE
```

```
@NowTimestamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."SalesSalesOrderVehicleHistory"
(
    "d"."SalesOrderVehicleId", "d"."CustomerId", "d"."StaffId", "d"."InvoiceNumber",
    "d"."TotalSalePrice", "d"."SaleDate", "d"."SalesCategoryThresholdId", "d"."Transaction-
    Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime",
    "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger", "d"."Audit-
    DateTimeStamp", "d"."DBAction", "d"."isDeleted"
)
SELECT
    "d"."SalesOrderVehicleId", "d"."CustomerId", "d"."StaffId", "d"."InvoiceNumber",
    "d"."TotalSalePrice", "d"."SaleDate", "d"."SalesCategoryThresholdId",
    "d"."TransactionNumber",
    'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
    Transaction Number: ', "d"."TransactionNumber")),
    "d"."UserAuthorizationId",
    "d"."SysStartTime",
    @NowTimeStamp, -- AS SysEndTime
    "d"."RowLevelHashKey",
    "d"."PriorRowLevelHashKey",
    "d"."FireAuditTrigger",
    @NowTimeStamp,
    @DBAction,
    @isDeleted
FROM deleted as "d"
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTi_SalesOrderVehicle on Sales.SalesOrderVehicle
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Sales].[uTi_SalesOrderVehicle] on [Sales].[SalesOrderVehicle]
WITH
    EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
    factually being true
    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputSalesSalesOrder-
    Vehicle"("i"."SalesOrderVehicleId"),
        "ut"."PriorRowLevelHashKey" = null,
        "ut"."Note" = 'Row Inserted',
```

```
"ut"."FireAuditTrigger" = 'N'
FROM "Sales"."SalesOrderVehicle" as "ut" --updateTable
INNER JOIN inserted as "i"
ON "i"."SalesOrderVehicleId" = "ut"."SalesOrderVehicleId"
AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTu_SalesOrderVehicle on Sales.SalesOrderVehicle
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Sales].[uTu_SalesOrderVehicle] on [Sales].[SalesOrderVehicle]
WITH
    EXECUTE AS CALLER AFTER UPDATE

AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';

    SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
    FROM deleted as "d"
    INNER JOIN inserted as "i"
    ON "i"."SalesOrderVehicleId" = "d"."SalesOrderVehicleId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber";

    -- Audit only if @FireAuditTrigger = 'Y'
    IF (@FireAuditTrigger = 'Y')
    BEGIN
        -- Insert record into audit table
        INSERT INTO "Audit"."SalesSalesOrderVehicleHistory"
        (
            "d"."SalesOrderVehicleId", "d"."CustomerId", "d"."StaffId", "d"."Invoice-
            Number", "d"."TotalSalePrice", "d"."SaleDate", "d"."SalesCategoryThreshold-
            Id", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStart-
            Time", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
            Trigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
        )
        SELECT
            "d"."SalesOrderVehicleId", "d"."CustomerId", "d"."StaffId", "d"."InvoiceNumber",
            "d"."TotalSalePrice", "d"."SaleDate", "d"."SalesCategoryThresholdId",
            "d"."TransactionNumber",
            coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
            Number")),

```



```
"d"."UserAuthorizationId",
"d"."SysStartTime",
@NowTimeStamp,
"d"."RowLevelHashKey",
"d"."PriorRowLevelHashKey",
"d"."FireAuditTrigger",
@NowTimeStamp,
@DBAction,
@isDeleted
FROM deleted AS "d"
INNER JOIN inserted AS "i"
ON "i"."SalesOrderVehicleId" = "d"."SalesOrderVehicleId"
   AND "i"."TransactionNumber" = "d"."TransactionNumber";

UPDATE "ut"
SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputSalesSales-
OrderVehicle"("i"."SalesOrderVehicleId"),
    "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
    "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
    "ut"."SysStartTime" = @NowTimeStamp,
    "ut"."SysEndTime" = @OpenEndedSysEndTime,
    "ut"."Note" = "i"."Note",
    "ut"."FireAuditTrigger" = 'N'
FROM "Sales"."SalesOrderVehicle" as "ut"
INNER JOIN inserted as "i"
ON "i"."SalesOrderVehicleId" = "ut"."SalesOrderVehicleId"
   AND "i"."TransactionNumber" = "ut"."TransactionNumber"
   AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
INNER JOIN deleted as "d"
ON "i"."SalesOrderVehicleId" = "d"."SalesOrderVehicleId"
   AND "i"."TransactionNumber" = "d"."TransactionNumber"
   AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [CK_Sales_SalesOrderVehicle_Fire-
AuditTrigger] CHECK (([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N'))
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [CK_Sales_SalesOrderVehicle_Sys-
EndTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [CK_Sales_SalesOrderVehicle_Sys-
StartTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [CK_Sales_SalesOrderVehicle_-
TotalSalePrice] CHECK (([TotalSalePrice]>=(0)))
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [XPKSales_Order_Vehicle] PRIMARY
KEY CLUSTERED ([SalesOrderVehicleId]) ON [PRIMARY]
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [FK_SalesOrderVehicle_Customer]
FOREIGN KEY ([CustomerId]) REFERENCES [Sales].[Customer] ([CustomerId])
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [FK_SalesOrderVehicle_Sales-
CategoryThreshold] FOREIGN KEY ([SalesCategoryThresholdId]) REFERENCES [Sales].[Sales-
```

```
CategoryThreshold] ([SalesCategoryThresholdId])
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [FK_SalesOrderVehicle_Staff]
FOREIGN KEY ([StaffId]) REFERENCES [HumanResources].[Staff] ([StaffId])
GO
ALTER TABLE [Sales].[SalesOrderVehicle] ADD CONSTRAINT [FK_SalesOrderVehicle_User-
Authorization] FOREIGN KEY ([UserAuthorizationId]) REFERENCES [DbSecurity].[User-
Authorization] ([UserAuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'An order for the purchase of a
vehicle', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for customers',
'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'CustomerId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'Fire-
AuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The invoice number of an order',
'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'InvoiceNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
key', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'PriorRowLevelHash-
Key'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'Row-
LevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The date an order was made', 'SCHEMA',
N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'SaleDate'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for SalesCategory-
ThresholdIds', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'Sales-
CategoryThresholdId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for a purchase',
'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'SalesOrderVehicleId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for staff
members', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'StaffId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'SysEnd-
Time'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'SysStart-
Time'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The total sale price of an order',
'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'TotalSalePrice'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN',
```

```
N'TransactionNumber'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-  
AuthorizationIds', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicle', 'COLUMN', N'User-  
AuthorizationId'  
GO
```

## Uses

---

[DbSecurity].[UserAuthorization]  
[HumanResources].[Staff]  
[Sales].[Customer]  
[Sales].[SalesCategoryThreshold]  
[sdDate].[DateYYYYMMDD]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdNumber].[Currency]  
[sdOrdinalNumber].[TransactionNumber]  
[sdShortTextString].[InvoiceNumber]  
Sales

## Used By

---

[Sales].[SalesOrderVehicleDetail]  
[Audit].[vwFindUniqueTablePkySalesSalesOrderVehicle]  
[CustomViews].[uvw\_ChuanStaffDiscountGiven]  
[CustomViews].[uvw\_ChuanStaffSales]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[CustomViews].[uvw\_RalphSalesPerCategoryThreshold]  
[Sales].[uvw\_PivotTable]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_SalesText]  
[Sales].[uvw\_YearlySales]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]  
[Hashing].[CreateSha256KeyFromJsonInputSalesSalesOrderVehicle]

## [Sales].[SalesOrderVehicleDetail]







### MS\_Description


The details of a vehicle order

### Properties

| Property      | Value                                 |
|---------------|---------------------------------------|
| Collation     | SQL_Latin1_General_CP1_CI_AS          |
| Row Count (~) | 351                                   |
| Created       | 3:47:40 AM Thursday, December 7, 2023 |
| Last Modified | 3:49:37 AM Thursday, December 7, 2023 |

### Columns


| Key   | Name  | Data Type                             | Persisted | Computed | Max Length (Bytes) | Nullability | Default   |
|---|---|---------------------------------------|-----------|----------|--------------------|-------------|---|
|  | SalesOrderVehicleDetailId<br><i>A unique identifier for SalesOrderVehicleDetail Ids</i> | [sdKey].[SurrogateKey-Integer]        |           |          | 4                  | NOT NULL    | (NEXT VALUE FOR [Sequenceld-Insert].[Sales_SalesOrderVehicleDetail_Id]) |
|  | SalesOrderVehicleId<br><i>A unique identifier for a purchase</i>                        | [sdKey].[SurrogateKey-Integer]        |           |          | 4                  | NOT NULL    |   |
|   | LineItemNumber<br><i>The line item number on the invoice</i>                            | [sdSequence-Number].[LineItem-Number] |           |          | 4                  | NOT NULL    | ((1))   |
|  | SalePrice<br><i>The sale price of a vehicle</i>   | [sdNumber].[Currency]                 |           |          | 9                  | NOT NULL    | ((0))   |
|  | LineItemDiscount<br><i>The discount of the line item number</i>                         | [sdNumber].[Currency]                 |           |          | 9                  | NOT NULL    | ((0))   |
|   | DerivedDiscountedSalePrice<br><i>The derived discounted sale price of a vehicle</i>     | numeric(19,2)                         | True      | True     | 9                  | NOT NULL    |   |
|  | ManufacturerVehicleStockId<br><i>A unique identifier for manufacturer vehicle stock</i> | [sdKey].[SurrogateKey-Integer]        |           |          | 4                  | NOT NULL    |   |
|  | UserAuthorizationId<br><i>A unique identifier for User-</i>                             | [sdKey].[SurrogateKey-Integer]        |           |          | 4                  | NOT NULL    | ((1))   |

|   |  |   |  |  |     |              |                               |
|---|--|---|--|--|-----|--------------|-------------------------------|
|   | <i>AuthorizationIds</i>  |   |  |  |     |              |                               |
|   | <b>SysStartTime</b><br><i>The start time for a system transaction</i>                          | [sdDateTime].[Date-Timestamp]           |  |  | 8   | NULL allowed | (sysdatetime())               |
|   | <b>SysEndTime</b><br><i>The end time for a system transaction</i>                              | [sdDateTime].[Date-Timestamp]           |  |  | 8   | NULL allowed | ('99991231 23:59:59.9999999') |
|   | <b>RowLevelHashKey</b><br><i>Current row hash key representing all combined columns</i>        | [sdHashKey].[Row-LevelHashKey]          |  |  | 32  | NULL allowed |                               |
|   | <b>TransactionNumber</b><br><i>The transaction number in a series of database transactions</i> | [sdOrdinal-Number].[Transaction-Number] |  |  | 4   | NOT NULL     | ((1))                         |
|   | <b>Note</b><br><i>A note regarding the database transaction</i>                                | [sdLongText-String].[Note]              |  |  | 200 | NULL allowed | ('Row was inserted')          |
|   | <b>PriorRowLevelHashKey</b><br><i>The prior transaction row level hash key</i>                 | [sdHashKey].[Row-LevelHashKey]          |  |  | 32  | NULL allowed |                               |
|  | <b>FireAuditTrigger</b><br><i>A flag to indicate if an audit trigger should be fired</i>       | [sdFlag].[FlagYesNo-String]             |  |  | 1   | NOT NULL     | ('N')                         |

## Computed columns

| Name                       | Column definition                |
|----------------------------|----------------------------------|
| DerivedDiscountedSalePrice | [(SalePrice)-[LineItemDiscount]] |

## Indexes

| Key   | Name                           | Key Columns                                     | Unique |
|---|--------------------------------|---|--------|
|  | PK_SalesDetails                | SalesOrderVehicleDetailId                       | True   |
|   | XAK1Sales_Order_Vehicle_Detail | SalesOrderVehicleId, ManufacturerVehicleStockId | True   |

## Triggers

| Name                        | ANSI Nulls On | Quoted Identifier On | On           |
|-----------------------------|---------------|----------------------|--------------|
| uTd_SalesOrderVehicleDetail | True          | True                 | After Delete |
| uTi_SalesOrderVehicleDetail | True          | True                 | After Insert |
| uTu_SalesOrderVehicleDetail | True          | True                 | After Update |

## Check Constraints

| Name  | On Column        | Constraint   |
|---|------------------|--|
| CK_Sales_SalesOrderVehicleDetail_FireAuditTrigger | FireAuditTrigger | ([FireAuditTrigger]='Y' OR [FireAuditTrigger]='N') |
| CK_Sales_SalesOrderVehicleDetail_LineItemDiscount | LineItemDiscount | ([LineItemDiscount]>=(0))                          |
| CK_Sales_SalesOrderVehicleDetail_SalePrice        | SalePrice        | ([SalePrice]>=(0))                                 |
| CK_Sales_SalesOrderVehicleDetail_SysEndTime       |                  | ([SysEndTime]>=[SysStartTime])                     |
| CK_Sales_SalesOrderVehicleDetail_SysStartTime     |                  | ([SysEndTime]>=[SysStartTime])                     |

## Foreign Keys

| Name  | Columns  |
|---|--|
| FK_SalesOrderVehicleDetail_ManufacturerVehicleStock | ManufacturerVehicleStockId->[Production].[ManufacturerVehicleStock].[ManufacturerVehicleStockId] |
| FK_SalesOrderVehicleDetail_SalesOrderVehicle        | SalesOrderVehicleId->[Sales].[SalesOrderVehicle].[SalesOrderVehicleId]                           |
| FK_SalesOrderVehicleDetail_UserAuthorization        | UserAuthorizationId->[DbSecurity].[UserAuthorization].[UserAuthorizationId]                      |

## SQL Script

```
CREATE TABLE [Sales].[SalesOrderVehicleDetail]
(
    [SalesOrderVehicleDetailId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_Id] DEFAULT (NEXT VALUE FOR [SequenceIdInsert].[Sales_SalesOrderVehicleDetail_Id]),
    [SalesOrderVehicleId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [LineItemNumber] [sdSequenceNumber].[LineItemNumber] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_LineItemNumber] DEFAULT ((1)),
    [SalePrice] [sdNumber].[Currency] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_SalePrice] DEFAULT ((0)),
    [LineItemDiscount] [sdNumber].[Currency] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_LineItemDiscount] DEFAULT ((0)),
    [DerivedDiscountedSalePrice] AS ([SalePrice]-[LineItemDiscount]) PERSISTED NOT NULL,
    [ManufacturerVehicleStockId] [sdKey].[SurrogateKeyInteger] NOT NULL,
    [UserAuthorizationId] [sdKey].[SurrogateKeyInteger] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_UserAuthorizationId] DEFAULT ((1)),
    [SysStartTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_SysStartTime] DEFAULT (sysdatetime()),
    [SysEndTime] [sdDateTime].[DateTimeStamp] NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_SysEndTime] DEFAULT ('99991231 23:59:59.9999999'),
    [RowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [TransactionNumber] [sdOrdinalNumber].[TransactionNumber] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_TransactionNumber] DEFAULT ((1)),
    [Note] [sdLongTextString].[Note] NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_Note] DEFAULT ('Row was inserted'),
    [PriorRowLevelHashKey] [sdHashKey].[RowLevelHashKey] NULL,
    [FireAuditTrigger] [sdFlag].[FlagYesNoString] NOT NULL CONSTRAINT [DF_Sales_SalesOrderVehicleDetail_FireAuditTrigger] DEFAULT ('N')
```

```
) ON [PRIMARY]
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTd_SalesOrderVehicleDetail on Sales.SalesOrderVehicleDetail
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER DELETE

-- Description: TSQL-AuditDeleteTrigger Templated Code

CREATE TRIGGER [Sales].[uTd_SalesOrderVehicleDetail] on [Sales].[SalesOrderVehicle-
Detail]
WITH
    EXECUTE AS CALLER AFTER DELETE

AS

BEGIN

DECLARE
@NowTimeStamp datetime = sysdatetime(),
@DBAction char(1) = 'D',
@isDeleted char(1) = 'Y'

-- Trigger Code
--

INSERT into "Audit"."SalesSalesOrderVehicleDetailHistory"
(
    "d"."SalesOrderVehicleDetailId", "d"."SalesOrderVehicleId", "d"."LineItemNumber",
    "d"."ManufacturerVehicleStockId", "d"."SalePrice", "d"."LineItemDiscount", "d"."Derived-
DiscountedSalePrice", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId",
    "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHash-
Key", "d"."FireAuditTrigger", "d"."AuditDateTimeStamp", "d"."DBAction", "d"."isDeleted"
)
SELECT
    "d"."SalesOrderVehicleDetailId", "d"."SalesOrderVehicleId", "d"."LineItemNumber",
    "d"."SalePrice", "d"."LineItemDiscount", "d"."DerivedDiscountedSalePrice",
    "d"."ManufacturerVehicleStockId",
    "d"."TransactionNumber",
    'Last Transaction prior to deletion: ' + coalesce("d"."Note", concat('No Message
Transaction Number: ', "d"."TransactionNumber")),
    "d"."UserAuthorizationId",
    "d"."SysStartTime",
    @NowTimeStamp, -- AS SysEndTime
    "d"."RowLevelHashKey",
    "d"."PriorRowLevelHashKey",
    "d"."FireAuditTrigger",
    @NowTimeStamp,
    @DBAction,
    @isDeleted
FROM deleted as "d"
END;
```

```
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTi_SalesOrderVehicleDetail on Sales.SalesOrderVehicleDetail
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER INSERT

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Sales].[uTi_SalesOrderVehicleDetail] on [Sales].[SalesOrderVehicle-
Detail]
WITH
    EXECUTE AS CALLER AFTER INSERT
AS
BEGIN
    -- Update the current record hash keys and the temporal range of the transaction of
    factually being true
    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputSalesSalesOrder-
VehicleDetail"("i"."SalesOrderVehicleDetailId"),
        "ut"."PriorRowLevelHashKey" = null,
        "ut"."Note" = 'Row Inserted',
        "ut"."FireAuditTrigger" = 'N'
    FROM "Sales"."SalesOrderVehicleDetail" as "ut" --updateTable
    INNER JOIN inserted as "i"
    ON "i"."SalesOrderVehicleDetailId" = "ut"."SalesOrderVehicleDetailId"
    AND "i"."TransactionNumber" = 1;
END;
GO

-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Trigger Name: Sales.uTu_SalesOrderVehicleDetail on Sales.SalesOrderVehicleDetail
-- Trigger Type: After WITH EXECUTE AS CALLER AFTER UPDATE

-- Description: TSQL-AuditInsertTrigger Templated Code

CREATE TRIGGER [Sales].[uTu_SalesOrderVehicleDetail] on [Sales].[SalesOrderVehicle-
Detail]
WITH
    EXECUTE AS CALLER AFTER UPDATE
AS
BEGIN
    DECLARE
        @NowTimeStamp datetime2(7) = sysdatetime(),
        @OpenEndedSysEndTime datetime2(7) = '99991231 23:59:59.9999999',
        @FireAuditTrigger char(1) = 'N',
        @DBAction char(1) = 'U',
        @isDeleted char(1) = 'N';
```



```
SELECT @FireAuditTrigger = "i"."FireAuditTrigger"
FROM deleted as "d"
    INNER JOIN inserted as "i"
        ON "i"."SalesOrderVehicleDetailId" = "d"."SalesOrderVehicleDetailId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber";

-- Audit only if @FireAuditTrigger = 'Y'
IF (@FireAuditTrigger = 'Y')
BEGIN
    -- Insert record into audit table
    INSERT INTO "Audit"."SalesSalesOrderVehicleDetailHistory"
    (
        "d"."SalesOrderVehicleDetailId", "d"."SalesOrderVehicleId", "d"."LineItem-
        Number", "d"."ManufacturerVehicleStockId", "d"."SalePrice", "d"."LineItem-
        Discount", "d"."DerivedDiscountedSalePrice", "d"."TransactionNumber", "d"."Note", "d"."User-
        AuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."Prior-
        RowLevelHashKey", "d"."FireAuditTrigger", "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."isDeleted"
    )
    SELECT
        "d"."SalesOrderVehicleDetailId", "d"."SalesOrderVehicleId", "d"."LineItem-
        Number", "d"."SalePrice", "d"."LineItemDiscount", "d"."DerivedDiscountedSalePrice",
        "d"."ManufacturerVehicleStockId",
        "d"."TransactionNumber",
        coalesce("d"."Note", concat('No Message Transaction Number: ', "d"."Transaction-
        Number")),
        "d"."UserAuthorizationId",
        "d"."SysStartTime",
        @NowTimeStamp,
        "d"."RowLevelHashKey",
        "d"."PriorRowLevelHashKey",
        "d"."FireAuditTrigger",
        @NowTimeStamp,
        @DBAction,
        @isDeleted
    FROM deleted AS "d"
    INNER JOIN inserted AS "i"
        ON "i"."SalesOrderVehicleDetailId" = "d"."SalesOrderVehicleDetailId"
        AND "i"."TransactionNumber" = "d"."TransactionNumber";

    UPDATE "ut"
    SET "ut"."RowLevelHashKey" = "Hashing"."CreateSha256KeyFromJsonInputSalesSales-
    OrderVehicleDetail"("i"."SalesOrderVehicleDetailId"),
        "ut"."PriorRowLevelHashKey" = "d"."RowLevelHashKey",
        "ut"."TransactionNumber" = "d"."TransactionNumber" + 1,
        "ut"."SysStartTime" = @NowTimeStamp,
        "ut"."SysEndTime" = @OpenEndedSysEndTime,
        "ut"."Note" = "i"."Note",
        "ut"."FireAuditTrigger" = 'N'
    FROM "Sales"."SalesOrderVehicleDetail" as "ut"
    INNER JOIN inserted as "i"
        ON "i"."SalesOrderVehicleDetailId" = "ut"."SalesOrderVehicleDetailId"
        AND "i"."TransactionNumber" = "ut"."TransactionNumber"
        AND "i"."RowLevelHashKey" = "ut"."RowLevelHashKey"
```

```
INNER JOIN deleted as "d"
    ON "i"."SalesOrderVehicleDetailId" = "d"."SalesOrderVehicleDetailId"
    AND "i"."TransactionNumber" = "d"."TransactionNumber"
    AND "i"."RowLevelHashKey" = "d"."RowLevelHashKey";

END;
END;
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [CK_Sales_SalesOrder-
VehicleDetail_FireAuditTrigger] CHECK (([FireAuditTrigger]='Y' OR [FireAudit-
Trigger]='N'))
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [CK_Sales_SalesOrder-
VehicleDetail_LineItemDiscount] CHECK (([LineItemDiscount]>=(0)))
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [CK_Sales_SalesOrder-
VehicleDetail_SalePrice] CHECK (([SalePrice]>=(0)))
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [CK_Sales_SalesOrder-
VehicleDetail_SysEndTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [CK_Sales_SalesOrder-
VehicleDetail_SysStartTime] CHECK (([SysEndTime]>=[SysStartTime]))
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [PK_SalesDetails] PRIMARY
KEY CLUSTERED ([SalesOrderVehicleDetailId]) ON [PRIMARY]
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [XAK1Sales_Order_Vehicle_-
Detail] UNIQUE NONCLUSTERED ([SalesOrderVehicleId], [ManufacturerVehicleStockId]) ON
[PRIMARY]
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [FK_SalesOrderVehicle-
Detail_ManufacturerVehicleStock] FOREIGN KEY ([ManufacturerVehicleStockId]) REFERENCES
[Production].[ManufacturerVehicleStock] ([ManufacturerVehicleStockId])
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [FK_SalesOrderVehicle-
Detail_SalesOrderVehicle] FOREIGN KEY ([SalesOrderVehicleId]) REFERENCES [Sales].[Sales-
OrderVehicle] ([SalesOrderVehicleId])
GO
ALTER TABLE [Sales].[SalesOrderVehicleDetail] ADD CONSTRAINT [FK_SalesOrderVehicle-
Detail_UserAuthorization] FOREIGN KEY ([UserAuthorizationId]) REFERENCES [Db-
Security].[UserAuthorization] ([UserAuthorizationId])
GO
EXEC sp_addextendedproperty N'MS_Description', N'The details of a vehicle order',
'SHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', NULL, NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'The derived discounted sale price of a
vehicle', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN', N'Derived-
DiscountedSalePrice'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A flag to indicate if an audit trigger
should be fired', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN',
N'FireAuditTrigger'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The discount of the line item number',
'SHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN', N'LineItemDiscount'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The line item number on the invoice',
'SHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN', N'LineItemNumber'
```

```
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for manufacturer
vehicle stock', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN',
N'ManufacturerVehicleStockId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A note regarding the database
transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN',
N'Note'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The prior transaction row level hash
key', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN', N'PriorRow-
LevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'Current row hash key representing all
combined columns', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN',
N'RowLevelHashKey'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The sale price of a vehicle',
'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN', N'SalePrice'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for SalesOrder-
VehicleDetail Ids', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN',
N'SalesOrderVehicleDetailId'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for a purchase',
'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN', N'SalesOrderVehicle-
Id'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The end time for a system
transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN', N'Sys-
EndTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The start time for a system
transaction', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN', N'Sys-
StartTime'
GO
EXEC sp_addextendedproperty N'MS_Description', N'The transaction number in a series of
database transactions', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail',
'COLUMN', N'TransactionNumber'
GO
EXEC sp_addextendedproperty N'MS_Description', N'A unique identifier for User-
AuthorizationIds', 'SCHEMA', N'Sales', 'TABLE', N'SalesOrderVehicleDetail', 'COLUMN',
N'UserAuthorizationId'
GO
```

## Uses

[DbSecurity].[UserAuthorization]  
[Production].[ManufacturerVehicleStock]  
[Sales].[SalesOrderVehicle]  
[sdDateTime].[DateTimeStamp]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdNumber].[Currency]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Tables > Sales.SalesOrderVehicleDetail

[sdOrdinalNumber].[TransactionNumber]  
[sdSequenceNumber].[LineItemNumber]  
Sales

## Used By

---

[Audit].[vwFindUniqueTablePkySalesSalesOrderVehicleDetail]  
[CustomViews].[uvw\_ChuanStaffDiscountGiven]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[Sales].[uvw\_PivotTable]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_SalesText]  
[Sales].[uvw\_YearlySales]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]  
[Hashing].[CreateSha256KeyFromJsonInputSalesSalesOrderVehicleDetail]



## Views

### Objects

| Name   |
|--|
| Audit.vwFindUniqueTablePkyHumanResourcesStaff                |
| Audit.vwFindUniqueTablePkyLocaleCountry                      |
| Audit.vwFindUniqueTablePkyProductionManufacturerModel        |
| Audit.vwFindUniqueTablePkyProductionManufacturerVehicleMake  |
| Audit.vwFindUniqueTablePkyProductionManufacturerVehicleStock |
| Audit.vwFindUniqueTablePkySalesCustomer                      |
| Audit.vwFindUniqueTablePkySalesSalesCategoryThreshold        |
| Audit.vwFindUniqueTablePkySalesSalesOrderVehicle             |
| Audit.vwFindUniqueTablePkySalesSalesOrderVehicleDetail       |
| CustomViews.uvw_ChuanCustomerCountry                         |
| CustomViews.uvw_ChuanMakeCountry                             |
| CustomViews.uvw_ChuanModelMake                               |
| CustomViews.uvw_ChuanStaffDiscountGiven                      |
| CustomViews.uvw_ChuanStaffSales                              |
| CustomViews.uvw_MehrshadVehicleCost                          |
| CustomViews.uvw_MehrshadYearlyCustomerSales                  |
| CustomViews.uvw_MehrshadYearlySalesProfits                   |
| CustomViews.uvw_RalphEmployeeManager                         |
| CustomViews.uvw_RalphMakeModelPartsCost                      |
| CustomViews.uvw_RalphSalesPerCategoryThreshold               |
| Sales.uvw_PivotTable   |
| Sales.uvw_Sales2018  |
| Sales.uvw_SalesByCountry                                     |
| Sales.uvw_SalesText  |
| Sales.uvw_StockPrices  |
| Sales.uvw_YearlySales  |
| Utils.uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint  |

## [Audit].[vwFindUniqueTablePkyHumanResourcesStaff]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:36 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:36 AM Thursday, December 7, 2023 |

### Columns

| Name    | Data Type                     | Max Length (Bytes) |
|---------|-------------------------------|--------------------|
| StaffId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkyHumanResourcesStaff"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus HumanResourcesStaff

CREATE VIEW [Audit].[vwFindUniqueTablePkyHumanResourcesStaff] AS

    SELECT "CurrentTable"."StaffId"
    FROM "HumanResources"."Staff" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."StaffId"
    FROM "Audit"."HumanResourcesStaffHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[HumanResourcesStaffHistory]  
[HumanResources].[Staff]  
[sdKey].[SurrogateKeyInteger]  
Audit

## [Audit].[vwFindUniqueTablePkyLocaleCountry]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:36 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:36 AM Thursday, December 7, 2023 |

### Columns

| Name      | Data Type                     | Max Length (Bytes) |
|-----------|-------------------------------|--------------------|
| CountryId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkyLocaleCountry"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus LocaleCountry

CREATE VIEW [Audit].[vwFindUniqueTablePkyLocaleCountry] AS

    SELECT "CurrentTable"."CountryId"
    FROM "Locale"."Country" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."CountryId"
    FROM "Audit"."LocaleCountryHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[LocaleCountryHistory]  
[Locale].[Country]  
[sdKey].[SurrogateKeyInteger]  
Audit

## [Audit].[vwFindUniqueTablePkyProductionManufacturerModel]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:36 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:36 AM Thursday, December 7, 2023 |

### Columns

| Name                | Data Type                     | Max Length (Bytes) |
|---------------------|-------------------------------|--------------------|
| ManufacturerModelId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkyProductionManufacturerModel"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus Production-
ManufacturerModel

CREATE VIEW [Audit].[vwFindUniqueTablePkyProductionManufacturerModel] AS

    SELECT "CurrentTable"."ManufacturerModelId"
    FROM "Production"."ManufacturerModel" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."ManufacturerModelId"
    FROM "Audit"."ProductionManufacturerModelHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[ProductionManufacturerModelHistory]  
[Production].[ManufacturerModel]  
[sdKey].[SurrogateKeyInteger]  
Audit



## [Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleMake]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:37 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Name                      | Data Type                     | Max Length (Bytes) |
|---------------------------|-------------------------------|--------------------|
| ManufacturerVehicleMakeId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkyProductionManufacturerVehicleMake"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus Production-
ManufacturerVehicleMake

CREATE VIEW [Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleMake] AS

    SELECT "CurrentTable"."ManufacturerVehicleMakeId"
    FROM "Production"."ManufacturerVehicleMake" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."ManufacturerVehicleMakeId"
    FROM "Audit"."ProductionManufacturerVehicleMakeHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Production].[ManufacturerVehicleMake]  
[sdKey].[SurrogateKeyInteger]  
Audit

## [Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleStock]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:37 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Name                       | Data Type                     | Max Length (Bytes) |
|----------------------------|-------------------------------|--------------------|
| ManufacturerVehicleStockId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkyProductionManufacturerVehicleStock"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus Production-
ManufacturerVehicleStock

CREATE VIEW [Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleStock] AS

    SELECT "CurrentTable"."ManufacturerVehicleStockId"
    FROM "Production"."ManufacturerVehicleStock" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."ManufacturerVehicleStockId"
    FROM "Audit"."ProductionManufacturerVehicleStockHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[ProductionManufacturerVehicleStockHistory]  
[Production].[ManufacturerVehicleStock]  
[sdKey].[SurrogateKeyInteger]  
Audit

## [Audit].[vwFindUniqueTablePkySalesCustomer]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:37 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Name       | Data Type                     | Max Length (Bytes) |
|------------|-------------------------------|--------------------|
| CustomerId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkySalesCustomer"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus SalesCustomer

CREATE VIEW [Audit].[vwFindUniqueTablePkySalesCustomer] AS

    SELECT "CurrentTable"."CustomerId"
    FROM "Sales"."Customer" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."CustomerId"
    FROM "Audit"."SalesCustomerHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[SalesCustomerHistory]  
[Sales].[Customer]  
[sdKey].[SurrogateKeyInteger]  
Audit

## [Audit].[vwFindUniqueTablePkySalesSalesCategoryThreshold]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:37 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Name                     | Data Type                     | Max Length (Bytes) |
|--------------------------|-------------------------------|--------------------|
| SalesCategoryThresholdId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkySalesSalesCategoryThreshold"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus SalesSalesCategory-Threshold

CREATE VIEW [Audit].[vwFindUniqueTablePkySalesSalesCategoryThreshold] AS

    SELECT "CurrentTable"."SalesCategoryThresholdId"
    FROM "Sales"."SalesCategoryThreshold" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."SalesCategoryThresholdId"
    FROM "Audit"."SalesSalesCategoryThresholdHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[SalesSalesCategoryThresholdHistory]  
[Sales].[SalesCategoryThreshold]  
[sdKey].[SurrogateKeyInteger]  
Audit

## [Audit].[vwFindUniqueTablePkySalesSalesOrderVehicle]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:37 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Name                | Data Type                     | Max Length (Bytes) |
|---------------------|-------------------------------|--------------------|
| SalesOrderVehicleId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkySalesSalesOrderVehicle"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus SalesSalesOrder-
Vehicle

CREATE VIEW [Audit].[vwFindUniqueTablePkySalesSalesOrderVehicle] AS

    SELECT "CurrentTable"."SalesOrderVehicleId"
    FROM "Sales"."SalesOrderVehicle" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."SalesOrderVehicleId"
    FROM "Audit"."SalesSalesOrderVehicleHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[SalesSalesOrderVehicleHistory]  
[Sales].[SalesOrderVehicle]  
[sdKey].[SurrogateKeyInteger]  
Audit



## [Audit].[vwFindUniqueTablePkySalesSalesOrderVehicleDetail]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:49:37 AM Thursday, December 7, 2023 |
| Last Modified        | 3:49:37 AM Thursday, December 7, 2023 |

### Columns

| Name                      | Data Type                     | Max Length (Bytes) |
|---------------------------|-------------------------------|--------------------|
| SalesOrderVehicleDetailId | [sdKey].[SurrogateKeyInteger] | 4                  |

### SQL Script

```
-- View Name: "Audit"."FindUniqueTablePkySalesSalesOrderVehicleDetail"
-- Description: TSQL-vwFindUniqueTablePkyView Templated Code plus SalesSalesOrder-
VehicleDetail

CREATE VIEW [Audit].[vwFindUniqueTablePkySalesSalesOrderVehicleDetail] AS

    SELECT "CurrentTable"."SalesOrderVehicleDetailId"
    FROM "Sales"."SalesOrderVehicleDetail" AS "CurrentTable"
    UNION
    SELECT "AuditHistory"."SalesOrderVehicleDetailId"
    FROM "Audit"."SalesSalesOrderVehicleDetailHistory"
    AS "AuditHistory"
GO
```

### Uses

[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Sales].[SalesOrderVehicleDetail]  
[sdKey].[SurrogateKeyInteger]  
Audit

## [CustomViews].[uvw\_ChuanCustomerCountry]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:47:42 AM Thursday, December 7, 2023 |
| Last Modified        | 3:47:42 AM Thursday, December 7, 2023 |

### Columns

| Name         | Data Type                           | Max Length (Bytes) |
|--------------|-------------------------------------|--------------------|
| CustomerName | [sdNameString].[CustomerName]       | 130                |
| CountryName  | [sdAddressesString].[CountryString] | 100                |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_ChuanCustomerCountry] as
select SC.CustomerName,LC.CountryName from Sales.Customer as SC INNER JOIN
Locale.Country as LC on LC.CountryId = SC.CountryId;
GO
```

### Uses

[Locale].[Country]  
[Sales].[Customer]  
[sdAddressesString].[CountryString]  
[sdNameString].[CustomerName]  
CustomViews

## [CustomViews].[uvw\_ChuanMakeCountry]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:47:42 AM Thursday, December 7, 2023 |
| Last Modified        | 3:47:42 AM Thursday, December 7, 2023 |

### Columns

| Name    | Data Type                             | Max Length (Bytes) |
|---------|---------------------------------------|--------------------|
| Country | [sdAddressesString].[CountryString]   | 100                |
| Make    | [sdVehicleString].[VehicleMakeString] | 60                 |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_ChuanMakeCountry] as
select LC.CountryName as Country, PMVM.ManufacturerVehicleMakeName as Make from
Production.ManufacturerVehicleMake as PMVM
INNER JOIN Locale.Country as LC on PMVM.CountryId = LC.CountryId;
GO
```

### Uses

[Locale].[Country]  
[Production].[ManufacturerVehicleMake]  
[sdAddressesString].[CountryString]  
[sdVehicleString].[VehicleMakeString]  
CustomViews



## [CustomViews].[uvw\_ChuanModelMake]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name  | Data Type                              | Max Length (Bytes) |
|-------|--|--------------------|
| Model | [sdVehicleString].[VehicleModelString] | 70                 |
| Make  | [sdVehicleString].[VehicleMakeString]  | 60                 |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_ChuanModelMake] as
select PMM.ManufacturerModelName as Model, PMVM.ManufacturerVehicleMakeName as Make
from Production.ManufacturerModel as PMM
INNER JOIN Production.ManufacturerVehicleMake as PMVM on PMM.ManufacturerVehicleMakeId
= PMVM.ManufacturerVehicleMakeId
GO
```

### Uses

[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleModelString]  
CustomViews

## [CustomViews].[uvw\_ChuanStaffDiscountGiven]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name          | Data Type                       | Max Length (Bytes) |
|---------------|---------------------------------|--------------------|
| StaffName     | [sdNameString].[FullNameString] | 120                |
| DiscountGiven | nvarchar(4000)                  | 8000               |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_ChuanStaffDiscountGiven] as
select HRS.StaffName, FORMAT(SUM(SSOVD.LineItemDiscount), 'C', 'en-US') as Discount-
Given from HumanResources.Staff as HRS
INNER JOIN Sales.SalesOrderVehicle as SSOV on HRS.StaffId = SSOV.StaffId
INNER JOIN Sales.SalesOrderVehicleDetail as SSOVD on SSOV.SalesOrderVehicleId =
SSOVD.SalesOrderVehicleId group by StaffName;
GO
```

### Uses

[HumanResources].[Staff]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdNameString].[FullNameString]  
CustomViews

## [CustomViews].[uvw\_ChuanStaffSales]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name       | Data Type                       | Max Length (Bytes) |
|------------|---------------------------------|--------------------|
| StaffName  | [sdNameString].[FullNameString] | 120                |
| TotalSales | nvarchar(4000)                  | 8000               |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_ChuanStaffSales] as
select HRS.StaffName, FORMAT(SUM(SSOV.TotalSalePrice), 'C', 'en-US') as TotalSales from
HumanResources.Staff as HRS
INNER JOIN Sales.SalesOrderVehicle as SSOV on HRS.StaffId = SSOV.StaffId group by Staff-
Name;
GO
```

### Uses

[HumanResources].[Staff]  
[Sales].[SalesOrderVehicle]  
[sdNameString].[FullNameString]  
CustomViews

## [CustomViews].[uvw\_MehrshadVehicleCost]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name                        | Data Type                              | Max Length (Bytes) |
|-----------------------------|--|--------------------|
| ManufacturerVehicleMakeName | [sdVehicleString].[VehicleMakeString]  | 60                 |
| ManufacturerModelName       | [sdVehicleString].[VehicleModelString] | 70                 |
| Cost                        | [sdNumber].[Currency]                  | 9                  |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_MehrshadVehicleCost]
as
SELECT
    "Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeName",
    "Production"."ManufacturerModel"."ManufacturerModelName",
    "Production"."ManufacturerVehicleStock"."Cost"
FROM
    "Sales"."SalesOrderVehicleDetail"
INNER JOIN
    "Sales"."SalesOrderVehicle"
ON
    "Sales"."SalesOrderVehicleDetail"."SalesOrderVehicleId" = "Sales"."SalesOrderVehicle"."SalesOrderVehicleId"
INNER JOIN
    "Sales"."Customer"
ON
    "Sales"."SalesOrderVehicle"."CustomerId" = "Sales"."Customer"."CustomerId"
INNER JOIN
    "Production"."ManufacturerVehicleStock"
ON
    "Sales"."SalesOrderVehicleDetail"."ManufacturerVehicleStockId" =
    "Production"."ManufacturerVehicleStock"."ManufacturerVehicleStockId"
INNER JOIN
    "Production"."ManufacturerModel"
```

```
INNER JOIN
    "Production"."ManufacturerVehicleMake"
ON
    "Production"."ManufacturerModel"."ManufacturerVehicleMakeId" =
"Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeId"
ON
    "Production"."ManufacturerVehicleStock"."ModelId" = "Production"."Manufacturer-
Model"."ManufacturerModelId"
GO
```

## Uses

---

[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdNumber].[Currency]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleModelString]  
CustomViews

## [CustomViews].[uvw\_MehrshadYearlyCustomerSales]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name                        | Data Type                              | Max Length (Bytes) |
|-----------------------------|--|--------------------|
| SaleDate                    | [sdDate].[DateYYYYMMDD]                | 3                  |
| CustomerName                | [sdNameString].[CustomerName]          | 130                |
| ManufacturerVehicleMakeName | [sdVehicleString].[VehicleMakeString]  | 60                 |
| ManufacturerModelName       | [sdVehicleString].[VehicleModelString] | 70                 |
| SalePrice                   | [sdNumber].[Currency]                  | 9                  |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_MehrshadYearlyCustomerSales]
as
SELECT
    "Sales"."SalesOrderVehicle"."SaleDate" ,
    "Sales"."Customer"."CustomerName" ,
    "Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeName" ,
    "Production"."ManufacturerModel"."ManufacturerModelName" ,
    "Sales"."SalesOrderVehicleDetail"."SalePrice"
FROM
    "Sales"."SalesOrderVehicleDetail"
INNER JOIN
    "Sales"."SalesOrderVehicle"
ON
    "Sales"."SalesOrderVehicleDetail"."SalesOrderVehicleId" = "Sales"."SalesOrder-
Vehicle"."SalesOrderVehicleId"
INNER JOIN
    "Sales"."Customer"
ON
    "Sales"."SalesOrderVehicle"."CustomerId" = "Sales"."Customer"."CustomerId"
CROSS JOIN
    "Production"."ManufacturerModel"
```

```
INNER JOIN
    "Production"."ManufacturerVehicleMake"
ON
    "Production"."ManufacturerModel"."ManufacturerVehicleMakeId" =
    "Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeId";
GO
```

## Uses

---

[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Sales].[Customer]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdDate].[DateYYYYMMDD]  
[sdNameString].[CustomerName]  
[sdNumber].[Currency]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleModelString]  
CustomViews

## [CustomViews].[uvw\_MehrshadYearlySalesProfits]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name            | Data Type                              | Max Length (Bytes) |
|-----------------|--|--------------------|
| SalesYear       | int                                    | 4                  |
| MakeName        | [sdVehicleString].[VehicleMakeString]  | 60                 |
| ModelName       | [sdVehicleString].[VehicleModelString] | 70                 |
| CustomerName    | [sdNameString].[CustomerName]          | 130                |
| Cost            | [sdNumber].[Currency]                  | 9                  |
| RepairsCharge   | [sdNumber].[Currency]                  | 9                  |
| PartsCost       | [sdNumber].[Currency]                  | 9                  |
| TransportInCost | [sdNumber].[Currency]                  | 9                  |
| SalePrice       | [sdNumber].[Currency]                  | 9                  |
| SaleDate        | [sdDate].[DateYYYYMMDD]                | 3                  |
| Profit          | numeric(22,2)                          | 13                 |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_MehrshadYearlySalesProfits]
as
SELECT
    YEAR("Sales"."SalesOrderVehicle"."SaleDate") AS "SalesYear",
    "Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeName" AS "MakeName",
    "Production"."ManufacturerModel"."ManufacturerModelName" AS "ModelName",
    "Sales"."Customer"."CustomerName",
    "Production"."ManufacturerVehicleStock"."Cost",
    "Production"."ManufacturerVehicleStock"."RepairsCharge",
    "Production"."ManufacturerVehicleStock"."PartsCharge" AS "PartsCost",
    "Production"."ManufacturerVehicleStock"."DeliveryCharge" AS "TransportInCost",
    "Sales"."SalesOrderVehicleDetail"."SalePrice",
    "Sales"."SalesOrderVehicle"."SaleDate",
```



```
    ("Sales"."SalesOrderVehicleDetail"."SalePrice" - "Production"."ManufacturerVehicle-
Stock"."Cost" - "Production"."ManufacturerVehicleStock"."RepairsCharge" -
    "Production"."ManufacturerVehicleStock"."PartsCharge" - "Production"."Manufacturer-
VehicleStock"."DeliveryCharge") AS "Profit"
FROM
    "Sales"."Customer"
INNER JOIN
    "Sales"."SalesOrderVehicle"
ON
    "Sales"."Customer"."CustomerId" = "Sales"."SalesOrderVehicle"."CustomerId"
INNER JOIN
    "Sales"."SalesOrderVehicleDetail"
ON
    "Sales"."SalesOrderVehicle"."SalesOrderVehicleId" = "Sales"."SalesOrderVehicle-
Detail"."SalesOrderVehicleId"
INNER JOIN
    "Production"."ManufacturerVehicleStock"
ON
    "Sales"."SalesOrderVehicleDetail"."ManufacturerVehicleStockId" =
"Production"."ManufacturerVehicleStock"."ManufacturerVehicleStockId"
INNER JOIN
    "Production"."ManufacturerModel"
ON
    "Production"."ManufacturerModel"."ManufacturerModelId" = "Production"."Manufacturer-
VehicleStock"."ModelId"
INNER JOIN
    "Production"."ManufacturerVehicleMake"
ON
    "Production"."ManufacturerModel"."ManufacturerVehicleMakeId" =
"Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeId";

GO
```

## Uses

---

[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdDate].[DateYYYYMMDD]  
[sdNameString].[CustomerName]  
[sdNumber].[Currency]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleModelString]  
CustomViews

## [CustomViews].[uvw\_RalphEmployeeManager]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name                | Data Type                                      | Max Length (Bytes) |
|---------------------|--|--------------------|
| Employee Name       | [sdNameString].[FullNameString]                | 120                |
| Employee Department | [sdBusinessComponentString].[DepartmentString] | 30                 |
| Manager Name        | [sdNameString].[FullNameString]                | 120                |
| Manager Department  | [sdBusinessComponentString].[DepartmentString] | 30                 |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_RalphEmployeeManager]
as
SELECT
    "emp"."StaffName" as "Employee Name",
    "emp"."Department" as "Employee Department",
    "mgr"."StaffName" as "Manager Name",
    "mgr"."Department" as "Manager Department"
FROM
    "HumanResources"."Staff" AS "emp"
INNER JOIN
    "HumanResources"."Staff" AS "mgr"
ON "emp"."ManagerId" = "mgr"."StaffId";
GO
```

### Uses

[HumanResources].[Staff]  
[sdBusinessComponentString].[DepartmentString]  
[sdNameString].[FullNameString]  
CustomViews

## [CustomViews].[uvw\_RalphMakeModelPartsCost]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name       | Data Type                              | Max Length (Bytes) |
|------------|--|--------------------|
| Make       | [sdVehicleString].[VehicleMakeString]  | 60                 |
| Model      | [sdVehicleString].[VehicleModelString] | 70                 |
| Parts Cost | [sdNumber].[Currency]                  | 9                  |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_RalphMakeModelPartsCost] AS
SELECT
    "mvm"."ManufacturerVehicleMakeName" AS "Make",
    "mm"."ManufacturerModelName" AS "Model",
    "mvs"."PartsCharge" AS "Parts Cost"
FROM
    "Production"."ManufacturerVehicleStock" as "mvs"
INNER JOIN
    "Production"."ManufacturerModel" as "mm"
ON "mm"."ManufacturerModelId" = "mvs"."ModelId"
INNER JOIN "Production"."ManufacturerVehicleMake" as "mvm"
ON "mm"."ManufacturerVehicleMakeId" = "mvm"."ManufacturerVehicleMakeId";
GO
```

### Uses

[Production].[ManufacturerModel]  
 [Production].[ManufacturerVehicleMake]  
 [Production].[ManufacturerVehicleStock]  
 [sdNumber].[Currency]  
 [sdVehicleString].[VehicleMakeString]

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CustomViews.uvw\_RalphMakeModelPartsCost

[sdVehicleString].[VehicleModelString]  
CustomViews

## [CustomViews].[uvw\_RalphSalesPerCategoryThreshold]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name                | Data Type   | Max Length (Bytes) |
|---------------------|-------------|--------------------|
| CategoryDescription | varchar(11) | 11                 |
| Number of Sales     | int         | 4                  |

### SQL Script

```
CREATE VIEW [CustomViews].[uvw_RalphSalesPerCategoryThreshold] AS
SELECT
    "sct"."CategoryDescription",
    COUNT("sov"."SalesOrderVehicleId") as "Number of Sales"
FROM
    "Sales"."SalesOrderVehicle" as "sov"
INNER JOIN
    "Sales"."SalesCategoryThreshold" as "sct"
ON "sov"."TotalSalePrice" >= "sct"."LowerThreshold"
AND
    "sov"."TotalSalePrice" <= "sct"."UpperThreshold"
GROUP BY "sct"."CategoryDescription";
GO
```

### Uses

[Sales].[SalesCategoryThreshold]  
[Sales].[SalesOrderVehicle]  
CustomViews

## [Sales].[uvw\_PivotTable]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name         | Data Type                        | Max Length (Bytes) |
|--------------|----------------------------------|--------------------|
| VehicleColor | [sdVehicleString].[VehicleColor] | 40                 |
| CY2015       | int                              | 4                  |
| CY2016       | int                              | 4                  |
| CY2017       | int                              | 4                  |
| CY2018       | int                              | 4                  |

### SQL Script

```
CREATE VIEW [Sales].[uvw_PivotTable] AS
SELECT
    "VehicleColor",
    CAST(SUM(CASE WHEN YEAR("SaleDate") = 2015 THEN "TotalSalePrice" ELSE 0 END) AS
INT) AS "CY2015",
    CAST(SUM(CASE WHEN YEAR("SaleDate") = 2016 THEN "TotalSalePrice" ELSE 0 END) AS
INT) AS "CY2016",
    CAST(SUM(CASE WHEN YEAR("SaleDate") = 2017 THEN "TotalSalePrice" ELSE 0 END) AS
INT) AS "CY2017",
    CAST(SUM(CASE WHEN YEAR("SaleDate") = 2018 THEN "TotalSalePrice" ELSE 0 END) AS
INT) AS "CY2018"
FROM
    "Sales"."SalesOrderVehicle"
JOIN
    "Sales"."SalesOrderVehicleDetail" ON "Sales"."SalesOrderVehicle"."SalesOrderVehicle-
Id" = "Sales"."SalesOrderVehicleDetail"."SalesOrderVehicleId"
JOIN
    "Production"."ManufacturerVehicleStock" ON "Sales"."SalesOrderVehicle-
Detail"."ManufacturerVehicleStockId" = "Production"."ManufacturerVehicle-
Stock"."ManufacturerVehicleStockId"
GROUP BY
    "VehicleColor";
```

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GO

## Uses

---

[Production].[ManufacturerVehicleStock]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdVehicleString].[VehicleColor]  
Sales

## [Sales].[uvw\_Sales2018]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
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### Columns

| Name            | Data Type                              | Max Length (Bytes) |
|-----------------|--|--------------------|
| SalesYear       | int                                    | 4                  |
| MakeName        | [sdVehicleString].[VehicleMakeString]  | 60                 |
| ModelName       | [sdVehicleString].[VehicleModelString] | 70                 |
| CustomerName    | [sdNameString].[CustomerName]          | 130                |
| CountryName     | [sdAddressesString].[CountryString]    | 100                |
| Cost            | nvarchar(4000)                         | 8000               |
| RepairCost      | nvarchar(4000)                         | 8000               |
| PartsCost       | nvarchar(4000)                         | 8000               |
| TransportInCost | nvarchar(4000)                         | 8000               |
| SalePrice       | int                                    | 4                  |
| SaleDate        | varchar(30)                            | 30                 |

### SQL Script

```
CREATE VIEW [Sales].[uvw_Sales2018] AS
SELECT
    YEAR("Sales"."SalesOrderVehicle"."SaleDate") AS "SalesYear",
    "Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeName" AS "MakeName",
    "Production"."ManufacturerModel"."ManufacturerModelName" AS "ModelName",
    "Sales"."Customer"."CustomerName",
    "Locale"."Country"."CountryName",
    FORMAT("Production"."ManufacturerVehicleStock"."Cost", 'C', 'en-US') as "Cost",
    FORMAT("Production"."ManufacturerVehicleStock"."RepairsCharge", 'C', 'en-US') as
RepairCost,
    FORMAT("Production"."ManufacturerVehicleStock"."PartsCharge", 'C', 'en-US') AS
"PartsCost",
    FORMAT("Production"."ManufacturerVehicleStock"."DeliveryCharge", 'C', 'en-US') AS
```



```
"TransportInCost",
    CAST("Sales"."SalesOrderVehicleDetail"."SalePrice" as INT) as "SalePrice",
    TRY_CONVERT(VARCHAR, "Sales"."SalesOrderVehicle"."SaleDate", 101) as SaleDate
FROM
    "Sales"."Customer"
INNER JOIN
    "Sales"."SalesOrderVehicle"
ON
    "Sales"."Customer"."CustomerId" = "Sales"."SalesOrderVehicle"."CustomerId"
INNER JOIN
    "Locale"."Country"
ON
    "Sales"."Customer"."CountryId" = "Locale"."Country"."CountryId"
INNER JOIN
    "Sales"."SalesOrderVehicleDetail"
ON
    "Sales"."SalesOrderVehicle"."SalesOrderVehicleId" = "Sales"."SalesOrderVehicle-
Detail"."SalesOrderVehicleId"
INNER JOIN
    "Production"."ManufacturerVehicleStock"
ON
    "Sales"."SalesOrderVehicleDetail"."ManufacturerVehicleStockId" =
"Production"."ManufacturerVehicleStock"."ManufacturerVehicleStockId"
INNER JOIN
    "Production"."ManufacturerModel"
ON
    "Production"."ManufacturerModel"."ManufacturerModelId" = "Production"."Manufacturer-
VehicleStock"."ModelId"
INNER JOIN
    "Production"."ManufacturerVehicleMake"
ON
    "Production"."ManufacturerModel"."ManufacturerVehicleMakeId" =
"Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeId" where
YEAR("Sales"."SalesOrderVehicle"."SaleDate") = 2018;
GO
```

## Uses

[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdAddressesString].[CountryString]  
[sdNameString].[CustomerName]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleModelString]  
Sales

## [Sales].[uvw\_SalesByCountry]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:47:42 AM Thursday, December 7, 2023 |
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### Columns

| Name             | Data Type                              | Max Length (Bytes) |
|------------------|--|--------------------|
| CountryName      | [sdAddressesString].[CountryString]    | 100                |
| MakeName         | [sdVehicleString].[VehicleMakeString]  | 60                 |
| ModelName        | [sdVehicleString].[VehicleModelString] | 70                 |
| Cost             | nvarchar(4000)                         | 8000               |
| RepairsCost      | nvarchar(4000)                         | 8000               |
| PartsCost        | nvarchar(4000)                         | 8000               |
| TransportInCost  | nvarchar(4000)                         | 8000               |
| Color            | [sdVehicleString].[VehicleColor]       | 40                 |
| SalePrice        | int                                    | 4                  |
| LineItemDiscount | int                                    | 4                  |
| InvoiceNumber    | [sdShortTextString].[InvoiceNumber]    | 8                  |
| SaleDate         | varchar(30)                            | 30                 |
| CustomerName     | [sdNameString].[CustomerName]          | 130                |
| SalesDetailsID   | [sdKey].[SurrogateKeyInteger]          | 4                  |

### SQL Script

```
CREATE VIEW [Sales].[uvw_SalesByCountry] as
SELECT
    "Locale"."Country"."CountryName",
    "Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeName" AS "MakeName",
    "Production"."ManufacturerModel"."ManufacturerModelName" AS "ModelName",
    FORMAT("Production"."ManufacturerVehicleStock"."Cost", 'C', 'en-US') AS "Cost",
    FORMAT("Production"."ManufacturerVehicleStock"."RepairsCharge", 'C', 'en-US') AS
    "RepairsCost",
    FORMAT("Production"."ManufacturerVehicleStock"."PartsCharge", 'C', 'en-US') AS
```

```
"PartsCost",
    FORMAT("Production"."ManufacturerVehicleStock"."DeliveryCharge", 'C', 'en-US') AS
"TransportInCost",
    "Production"."ManufacturerVehicleStock"."VehicleColor" AS "Color",
    CAST("Sales"."SalesOrderVehicleDetail"."SalePrice" as INT) as SalePrice,
    CAST("Sales"."SalesOrderVehicleDetail"."LineItemDiscount" as INT) as LineItem-
Discount,
    "Sales"."SalesOrderVehicle"."InvoiceNumber",
    TRY_CONVERT(VARCHAR, "Sales"."SalesOrderVehicle"."SaleDate", 101) as SaleDate,
    "Sales"."Customer"."CustomerName",
    "Sales"."SalesOrderVehicleDetail"."SalesOrderVehicleDetailId" AS "SalesDetailsID"
FROM
    "Sales"."SalesOrderVehicle"
JOIN
    "Sales"."Customer" ON "Sales"."SalesOrderVehicle"."CustomerId" =
"Sales"."Customer"."CustomerId"
JOIN
    "Locale"."Country" ON "Sales"."Customer"."CountryId" = "Locale"."Country"."Country-
Id"
JOIN
    "Sales"."SalesOrderVehicleDetail" ON "Sales"."SalesOrderVehicle"."SalesOrderVehicle-
Id" = "Sales"."SalesOrderVehicleDetail"."SalesOrderVehicleId"
JOIN
    "Production"."ManufacturerVehicleStock" ON "Sales"."SalesOrderVehicle-
Detail"."ManufacturerVehicleStockId" = "Production"."ManufacturerVehicle-
Stock"."ManufacturerVehicleStockId"
JOIN
    "Production"."ManufacturerModel" ON "Production"."ManufacturerVehicleStock"."Model-
Id" = "Production"."ManufacturerModel"."ManufacturerModelId"
JOIN
    "Production"."ManufacturerVehicleMake" ON "Production"."Manufacturer-
Model"."ManufacturerVehicleMakeId" = "Production"."ManufacturerVehicle-
Make"."ManufacturerVehicleMakeId";

GO
```

## Uses

[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdAddressesString].[CountryString]  
[sdKey].[SurrogateKeyInteger]  
[sdNameString].[CustomerName]  
[sdShortTextString].[InvoiceNumber]  
[sdVehicleString].[VehicleColor]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleModelString]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Views >  
Sales.uvw\_SalesByCountry

Sales

## [Sales].[uvw\_SalesText]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:47:42 AM Thursday, December 7, 2023 |
| Last Modified        | 3:47:42 AM Thursday, December 7, 2023 |

### Columns

| Name        | Data Type                             | Max Length (Bytes) |
|-------------|---------------------------------------|--------------------|
| CountryName | [sdAddressesString].[CountryString]   | 100                |
| MakeName    | [sdVehicleString].[VehicleMakeString] | 60                 |
| Cost        | [sdNumber].[Currency]                 | 9                  |
| SalePrice   | [sdNumber].[Currency]                 | 9                  |

### SQL Script

```
CREATE VIEW [Sales].[uvw_SalesText] AS
SELECT
    co."CountryName",
    mvm."ManufacturerVehicleMakeName" AS "MakeName",
    mvs."Cost" AS "Cost",
    sv."TotalSalePrice" AS "SalePrice"
FROM
    "Sales"."SalesOrderVehicle" sv
    JOIN "Sales"."SalesOrderVehicleDetail" svd ON svd."SalesOrderVehicleId" = sv."Sales-
OrderVehicleId"
    JOIN "Production"."ManufacturerVehicleStock" mvs ON svd."ManufacturerVehicleStock-
Id" = mvs."ManufacturerVehicleStockId"
    JOIN "Production"."ManufacturerModel" mm ON mvs."ModelId" = mm."ManufacturerModel-
Id"
    JOIN "Production"."ManufacturerVehicleMake" mvm ON mvm."ManufacturerVehicleMakeId"
= mm."ManufacturerVehicleMakeId"
    JOIN "Sales"."Customer" c ON sv."CustomerId" = c."CustomerId"
    JOIN "Locale"."Country" co ON c."CountryId" = co."CountryId";

GO
```

## Uses

---

[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdAddressesString].[CountryString]  
[sdNumber].[Currency]  
[sdVehicleString].[VehicleMakeString]  
Sales

## [Sales].[uvw\_StockPrices]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:47:42 AM Thursday, December 7, 2023 |
| Last Modified        | 3:47:42 AM Thursday, December 7, 2023 |

### Columns

| Name       | Data Type                              | Max Length (Bytes) |
|------------|--|--------------------|
| MakeName   | [sdVehicleString].[VehicleMakeString]  | 60                 |
| ModelName  | [sdVehicleString].[VehicleModelString] | 70                 |
| RetailCost | nvarchar(4000)                         | 8000               |

### SQL Script

```
CREATE VIEW [Sales].[uvw_StockPrices] AS
SELECT
    mvsmm."ManufacturerVehicleMakeName" AS "MakeName",
    mm."ManufacturerModelName" AS "ModelName",
    FORMAT(mvs."Cost", '$#,0.00') AS "RetailCost"
FROM
    "Production"."ManufacturerVehicleStock" mvs
JOIN "Production"."ManufacturerModel" mm
ON mvs."ModelId" = mm."ManufacturerModelId"
JOIN "Production"."ManufacturerVehicleMake" mvsmm
ON mm."ManufacturerVehicleMakeId" = mvsmm."ManufacturerVehicleMakeId";

GO
```

### Uses

[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[sdVehicleString].[VehicleMakeString]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Views >  
Sales.uvw\_StockPrices

[sdVehicleString].[VehicleModelString]  
Sales



## [Sales].[uvw\_YearlySales]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:47:42 AM Thursday, December 7, 2023 |
| Last Modified        | 3:47:42 AM Thursday, December 7, 2023 |

### Columns

| Name            | Data Type                              | Max Length (Bytes) |
|-----------------|--|--------------------|
| SalesYear       | int                                    | 4                  |
| MakeName        | [sdVehicleString].[VehicleMakeString]  | 60                 |
| ModelName       | [sdVehicleString].[VehicleModelString] | 70                 |
| CustomerName    | [sdNameString].[CustomerName]          | 130                |
| CountryName     | [sdAddressesString].[CountryString]    | 100                |
| Cost            | nvarchar(4000)                         | 8000               |
| RepairsCost     | nvarchar(4000)                         | 8000               |
| PartsCost       | nvarchar(4000)                         | 8000               |
| TransportInCost | nvarchar(4000)                         | 8000               |
| SalePrice       | int                                    | 4                  |
| SaleDate        | varchar(30)                            | 30                 |

### SQL Script

```
CREATE VIEW [Sales].[uvw_YearlySales] AS
SELECT
    YEAR("Sales"."SalesOrderVehicle"."SaleDate") AS "SalesYear",
    "Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeName" AS "MakeName",
    "Production"."ManufacturerModel"."ManufacturerModelName" AS "ModelName",
    "Sales"."Customer"."CustomerName",
    "Locale"."Country"."CountryName",
    FORMAT("Production"."ManufacturerVehicleStock"."Cost" , 'C' , 'en-US') as "Cost",
    FORMAT("Production"."ManufacturerVehicleStock"."RepairsCharge" , 'C' , 'en-US') as
"RepairsCost",
    FORMAT("Production"."ManufacturerVehicleStock"."PartsCharge" , 'C' , 'en-US') AS
"PartsCost",
    FORMAT("Production"."ManufacturerVehicleStock"."DeliveryCharge" , 'C' , 'en-US') AS
```

```
"TransportInCost",
    CAST("Sales"."SalesOrderVehicleDetail"."SalePrice" AS INT) as "SalePrice",
    TRY_CONVERT(VARCHAR, "Sales"."SalesOrderVehicle"."SaleDate", 101) AS "SaleDate"
FROM
    "Sales"."Customer"
INNER JOIN
    "Sales"."SalesOrderVehicle"
ON
    "Sales"."Customer"."CustomerId" = "Sales"."SalesOrderVehicle"."CustomerId"
INNER JOIN
    "Locale"."Country"
ON
    "Sales"."Customer"."CountryId" = "Locale"."Country"."CountryId"
INNER JOIN
    "Sales"."SalesOrderVehicleDetail"
ON
    "Sales"."SalesOrderVehicle"."SalesOrderVehicleId" = "Sales"."SalesOrderVehicle-
Detail"."SalesOrderVehicleId"
INNER JOIN
    "Production"."ManufacturerVehicleStock"
ON
    "Sales"."SalesOrderVehicleDetail"."ManufacturerVehicleStockId" =
"Production"."ManufacturerVehicleStock"."ManufacturerVehicleStockId"
INNER JOIN
    "Production"."ManufacturerModel"
ON
    "Production"."ManufacturerModel"."ManufacturerModelId" = "Production"."Manufacturer-
VehicleStock"."ModelId"
INNER JOIN
    "Production"."ManufacturerVehicleMake"
ON
    "Production"."ManufacturerModel"."ManufacturerVehicleMakeId" =
"Production"."ManufacturerVehicleMake"."ManufacturerVehicleMakeId";

GO
```

## Uses

---

[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[sdAddressesString].[CountryString]  
[sdNameString].[CustomerName]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleModelString]  
Sales

## [Utils].[uvw\_FindColumnDefinitionPlusDefaultAndCheckConstraint]

### Properties

| Property             | Value                                 |
|----------------------|---------------------------------------|
| Collation            | SQL_Latin1_General_CP1_CI_AS          |
| ANSI Nulls On        | True                                  |
| Quoted Identifier On | True                                  |
| Created              | 3:47:42 AM Thursday, December 7, 2023 |
| Last Modified        | 3:47:42 AM Thursday, December 7, 2023 |

### Columns

| Name  | Data Type       | Max Length (Bytes) |
|---|-----------------|--------------------|
| <b>FullyQualifiedTableName</b><br><i>The fully qualified name of a table</i>                      | nvarchar(257)   | 514                |
| <b>SchemaName</b><br><i>The name of a schema</i>  | [sys].[sysname] | 256                |
| <b>TableName</b><br><i>The name of a table</i>  | [sys].[sysname] | 256                |
| <b>ColumnName</b><br><i>The name of the column</i>  | [sys].[sysname] | 256                |
| <b>OrdinalPosition</b><br><i>An ordinal position</i>  | int             | 4                  |
| <b>FullyQualifiedDomainName</b><br><i>The fully qualified name of a domain</i>                    | nvarchar(257)   | 514                |
| <b>DomainName</b><br><i>The domain name</i>   | [sys].[sysname] | 256                |
| <b>DataType</b><br><i>The data type for a column</i>  | nvarchar(128)   | 256                |
| <b>IsNullable</b><br><i>Flag used to check if an entry is nullable</i>                            | varchar(3)      | 3                  |
| <b>DefaultName</b><br><i>The default name</i>   | [sys].[sysname] | 256                |
| <b>DefaultNameDefinition</b><br><i>The default name definition</i>                                | nvarchar(4000)  | 8000               |
| <b>CheckConstraintRuleName</b><br><i>The rule name of a check constraint</i>                      | [sys].[sysname] | 256                |
| <b>CheckConstraintRuleNameDefinition</b><br><i>The definition of a check constraint rule name</i> | nvarchar(4000)  | 8000               |

### SQL Script

```
CREATE VIEW [Utils].[uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint] AS SELECT
concat( tbl.TABLE_SCHEMA , '.' , tbl.TABLE_NAME ) AS FullyQualifiedTableName,
tbl.TABLE_SCHEMA AS SchemaName, tbl.TABLE_NAME AS TableName, col.COLUMN_NAME AS Column-
Name, col.ORDINAL_POSITION AS OrdinalPosition, concat( col.DOMAIN_SCHEMA , '.' ,
col.DOMAIN_NAME ) AS FullyQualifiedDomainName, col.DOMAIN_NAME AS DomainName, CASE
WHEN col.DATA_TYPE = 'varchar' THEN concat( 'varchar(' , CHARACTER_MAXIMUM_LENGTH ,
')' ) WHEN col.DATA_TYPE = 'char' THEN concat( 'char(' , CHARACTER_MAXIMUM_LENGTH ,
')' ) WHEN col.DATA_TYPE = 'nvarchar' THEN concat( 'nvarchar(' , CHARACTER_MAXIMUM_-
LENGTH , ')') WHEN col.DATA_TYPE = 'nchar' THEN concat( 'nchar(' , CHARACTER_-
MAXIMUM_LENGTH , ')') WHEN col.DATA_TYPE = 'numeric' THEN concat( 'numeric(' ,
NUMERIC_PRECISION_RADIX , ', ' , NUMERIC_SCALE , ')') WHEN col.DATA_TYPE = 'decimal'
THEN concat( 'decimal(' , NUMERIC_PRECISION_RADIX , ', ' , NUMERIC_SCALE , ')') ELSE
col.DATA_TYPE END AS DataType, col.IS_NULLABLE AS IsNullable, dcn.DefaultName,
col.COLUMN_DEFAULT AS DefaultNameDefinition, cc.CONSTRAINT_NAME AS CheckConstraintRule-
Name, cc.CHECK_CLAUSE AS CheckConstraintRuleNameDefinition FROM ( SELECT TABLE_-
CATALOG, TABLE_SCHEMA, TABLE_NAME, TABLE_TYPE FROM INFORMATION_SCHEMA.TABLES WHERE (
TABLE_TYPE = 'BASE TABLE' ) ) AS tbl INNER JOIN ( SELECT TABLE_CATALOG, TABLE_-
SCHEMA, TABLE_NAME, COLUMN_NAME, ORDINAL_POSITION, COLUMN_DEFAULT, IS_NULLABLE, DATA_-
TYPE, CHARACTER_MAXIMUM_LENGTH, CHARACTER_OCTET_LENGTH, NUMERIC_PRECISION, NUMERIC_-
PRECISION_RADIX, NUMERIC_SCALE, DATETIME_PRECISION, CHARACTER_SET_CATALOG, CHARACTER_-
SET_SCHEMA, CHARACTER_SET_NAME, COLLATION_CATALOG, COLLATION_SCHEMA, COLLATION_NAME,
DOMAIN_CATALOG, DOMAIN_SCHEMA, DOMAIN_NAME FROM INFORMATION_SCHEMA.COLUMNS ) AS col ON
col.TABLE_CATALOG = tbl.TABLE_CATALOG AND col.TABLE_SCHEMA = tbl.TABLE_SCHEMA AND
col.TABLE_NAME = tbl.TABLE_NAME LEFT OUTER JOIN ( SELECT t.name AS TableName,
schema_name( s.schema_id ) AS SchemaName, ac.name AS ColumnName, d.name AS DefaultName
FROM sys.all_columns AS ac INNER JOIN sys.tables AS t ON ac.object_id = t.object_id
INNER JOIN sys.schemas AS s ON t.schema_id = s.schema_id INNER JOIN
sys.default_constraints AS d ON ac.default_object_id = d.object_id ) AS dcn ON
dcn.SchemaName = tbl.TABLE_SCHEMA AND dcn.TableName = tbl.TABLE_NAME AND dcn.ColumnName
= col.COLUMN_NAME LEFT OUTER JOIN ( SELECT cu.TABLE_CATALOG, cu.TABLE_SCHEMA,
cu.TABLE_NAME, cu.COLUMN_NAME, c.CONSTRAINT_CATALOG, c.CONSTRAINT_SCHEMA, c.CONSTRAINT_-
NAME, c.CHECK_CLAUSE FROM INFORMATION_SCHEMA.CONSTRAINT_COLUMN_USAGE AS cu INNER JOIN
INFORMATION_SCHEMA.CHECK_CONSTRAINTS AS c ON c.CONSTRAINT_NAME = cu.CONSTRAINT_NAME )
AS cc ON cc.TABLE_SCHEMA = tbl.TABLE_SCHEMA AND cc.TABLE_NAME = tbl.TABLE_NAME AND
cc.COLUMN_NAME = col.COLUMN_NAME
GO

EXEC sp_addextendedproperty N'MS_Description', N'The rule name of a check constraint',
'SHEMA', N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint',
'COLUMN', N'CheckConstraintRuleName'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The definition of a check constraint
rule name', 'SCHEMA', N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheck-
Constraint', 'COLUMN', N'CheckConstraintRuleNameDefinition'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The name of the column', 'SCHEMA',
N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint', 'COLUMN',
N'ColumnName'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The data type for a column', 'SCHEMA',
N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint', 'COLUMN',
N'DataType'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The default name', 'SCHEMA', N'Utils',
'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint', 'COLUMN', N'Default-
Name'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The default name definition',
'SHEMA', N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint',
'COLUMN', N'DefaultNameDefinition'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The domain name', 'SCHEMA', N'Utils',
'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint', 'COLUMN', N'Domain-
Name'
GO

EXEC sp_addextendedproperty N'MS_Description', N'The fully qualified name of a domain',
```

```
'SCHEMA', N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint',  
'COLUMN', N'FullyQualifiedDomainName'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'The fully qualified name of a table',  
'SCHEMA', N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint',  
'COLUMN', N'FullyQualifiedTableName'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'Flag used to check if an entry is  
nullable', 'SCHEMA', N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheck-  
Constraint', 'COLUMN', N'IsNullable'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'An ordinal position', 'SCHEMA',  
N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint', 'COLUMN',  
N'OrdinalPosition'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'The name of a schema', 'SCHEMA',  
N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint', 'COLUMN',  
N'SchemaName'  
GO  
EXEC sp_addextendedproperty N'MS_Description', N'The name of a table', 'SCHEMA',  
N'Utils', 'VIEW', N'uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint', 'COLUMN',  
N'TableName'  
GO
```

## Uses

---

### Utils

## **Table-valued Functions**

### Objects

---

| Name   |
|--|
| Audit.itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff                |
| Audit.itvfnFindAllTransactionsByTablePkyOfLocaleCountry                      |
| Audit.itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel        |
| Audit.itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake  |
| Audit.itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock |
| Audit.itvfnFindAllTransactionsByTablePkyOfSalesCustomer                      |
| Audit.itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold        |
| Audit.itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle             |
| Audit.itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail       |

## [Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit".itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff" ()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff] (@Pky
int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS
"DBAction",
        "d"."StaffId", "d"."StaffName", "d"."ManagerId", "d"."Department",
        "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime",
        "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
Trigger"
    FROM "HumanResources"."Staff" AS "d"
    WHERE "d"."StaffId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."StaffId", "d"."StaffName", "d"."ManagerId", "d"."Department",
        "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime",
        "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
Trigger"
    FROM "Audit"."HumanResourcesStaffHistory" as "d"
    WHERE "d"."StaffId" = @Pky
);
```

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GO

## Uses

---

[Audit].[HumanResourcesStaffHistory]  
[HumanResources].[Staff]  
[sdBusinessComponentString].[DepartmentString]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdNameString].[FullNameString]  
[sdOrdinalNumber].[TransactionNumber]  
Audit



## [Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit".itvfnFindAllTransactionsByTablePkyOfLocaleCountry" ()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry] (@Pky int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS
"DBAction",
        "d"."CountryId", "d"."CountryISO3", "d"."CountryName", "d"."CountryISO2",
"d"."SalesRegion", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId",
"d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHash-
Key", "d"."FireAuditTrigger"
    FROM "Locale"."Country" AS "d"
    WHERE "d"."CountryId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."CountryId", "d"."CountryISO3", "d"."CountryName", "d"."CountryISO2",
"d"."SalesRegion", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId",
"d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHash-
Key", "d"."FireAuditTrigger"
    FROM "Audit"."LocaleCountryHistory" as "d"
    WHERE "d"."CountryId" = @Pky
);

GO
```

---

## Uses

---

[Audit].[LocaleCountryHistory]  
[Locale].[Country]  
[sdAddressesString].[CountryString]  
[sdAddressesString].[RegionString]  
[sdCountryStringVariant].[CountryISO2]  
[sdCountryStringVariant].[CountryISO3]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
Audit

## [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturer-Model]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit".itvfnFindAllTransactionsByTablePkyOfProductionManufacturer-
Model" ()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturer-
Model] (@Pky int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS
"DBAction",
        "d"."ManufacturerModelId", "d"."ManufacturerVehicleMakeId", "d"."ManufacturerModel-
Name", "d"."ManufacturerModelVariant", "d"."TransactionNumber", "d"."Note", "d"."User-
AuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey",
"d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
    FROM "Production"."ManufacturerModel" AS "d"
    WHERE "d"."ManufacturerModelId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."ManufacturerModelId", "d"."ManufacturerVehicleMakeId", "d"."ManufacturerModel-
Name", "d"."ManufacturerModelVariant", "d"."TransactionNumber", "d"."Note", "d"."User-
AuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey",
"d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
    FROM "Audit"."ProductionManufacturerModelHistory" as "d"
    WHERE "d"."ManufacturerModelId" = @Pky
```

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Programmability > Functions > Table-valued Functions > Audit.itvfnFindAllTransactionsByTablePkyOfProduction-  
ManufacturerModel

```
) ;  
  
GO
```

## Uses

---

[Audit].[ProductionManufacturerModelHistory]  
[Production].[ManufacturerModel]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdVehicleString].[VehicleModelString]  
Audit

## [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit".itvfnFindAllTransactionsByTablePkyOfProductionManufacturer-
VehicleMake" ()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturer-
VehicleMake] (@Pky int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS
"DBAction",
        "d"."ManufacturerVehicleMakeId", "d"."ManufacturerVehicleMakeName", "d"."Country-
Id", "d"."MarketingType", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorization-
Id", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevel-
HashKey", "d"."FireAuditTrigger"
    FROM "Production"."ManufacturerVehicleMake" AS "d"
    WHERE "d"."ManufacturerVehicleMakeId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."ManufacturerVehicleMakeId", "d"."ManufacturerVehicleMakeName", "d"."Country-
Id", "d"."MarketingType", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorization-
Id", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevel-
HashKey", "d"."FireAuditTrigger"
    FROM "Audit"."ProductionManufacturerVehicleMakeHistory" as "d"
    WHERE "d"."ManufacturerVehicleMakeId" = @Pky
```

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 >  
Programmability > Functions > Table-valued Functions > Audit.itvfnFindAllTransactionsByTablePkyOfProduction-  
ManufacturerVehicleMake

```
) ;  
  
GO
```

## Uses

---

[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Production].[ManufacturerVehicleMake]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleManufacturerMarketingType]  
Audit

## [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit"."itvfnFindAllTransactionsByTablePkyOfProductionManufacturer-
VehicleStock" ()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturer-
VehicleStock] (@Pky int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS
"DBAction",
        "d"."ManufacturerVehicleStockId", "d"."StockCode", "d"."ModelId", "d"."Cost",
"d"."RepairsCharge", "d"."PartsCharge", "d"."DeliveryCharge", "d"."IsPremiumRoad-
HandlingPackage", "d"."VehicleColor", "d"."CustomerComment", "d"."PurchaseDate",
"d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime",
"d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
Trigger"
    FROM "Production"."ManufacturerVehicleStock" AS "d"
    WHERE "d"."ManufacturerVehicleStockId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."ManufacturerVehicleStockId", "d"."StockCode", "d"."ModelId", "d"."Cost",
"d"."RepairsCharge", "d"."PartsCharge", "d"."DeliveryCharge", "d"."IsPremiumRoad-
HandlingPackage", "d"."VehicleColor", "d"."CustomerComment", "d"."PurchaseDate",
"d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime",
"d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
```

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Programmability > Functions > Table-valued Functions > Audit.itvfnFindAllTransactionsByTablePkyOfProduction-  
ManufacturerVehicleStock

```
Trigger"
    FROM "Audit"."ProductionManufacturerVehicleStockHistory" as "d"
    WHERE "d"."ManufacturerVehicleStockId" = @Pky
);

GO
```

## Uses

---

[Audit].[ProductionManufacturerVehicleStockHistory]  
[Production].[ManufacturerVehicleStock]  
[sdDate].[DateYYYYMMDD]  
[sdFlag].[FlagBit]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[CustomerComments]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdShortTextString].[StockCode]  
[sdVehicleString].[VehicleColor]  
Audit



## [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit"."itvfnFindAllTransactionsByTablePkyOfSalesCustomer" ()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer] (@Pky int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS
    "DBAction",
        "d"."CustomerId", "d"."CustomerName", "d"."CustomerAddress1", "d"."Customer-
        Address2", "d"."CustomerTown", "d"."CustomerPostalCode", "d"."CountryId", "d"."Is-
        CustomerReseller", "d"."IsCustomerCreditRisk", "d"."SpendCapacity", "d"."Transaction-
        Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime",
        "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
    FROM "Sales"."Customer" AS "d"
    WHERE "d"."CustomerId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."CustomerId", "d"."CustomerName", "d"."CustomerAddress1", "d"."Customer-
        Address2", "d"."CustomerTown", "d"."CustomerPostalCode", "d"."CountryId", "d"."Is-
        CustomerReseller", "d"."IsCustomerCreditRisk", "d"."SpendCapacity", "d"."Transaction-
        Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime",
        "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
    FROM "Audit"."SalesCustomerHistory" as "d"
    WHERE "d"."CustomerId" = @Pky
);
```

GO

## Uses

---

[Audit].[SalesCustomerHistory]  
[Sales].[Customer]  
[sdAddressesString].[AddressString]  
[sdAddressesString].[PostalCodeString]  
[sdAddressesString].[TownString]  
[sdFlag].[FlagBit]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdMarketingTextString].[CustomerSpendCapacity]  
[sdNameString].[CustomerName]  
[sdOrdinalNumber].[TransactionNumber]  
Audit

## [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategory-Threshold]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit".itvfnFindAllTransactionsByTablePkyOfSalesSalesCategory-Threshold" ()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategory-Threshold] (@Pky int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS "DBAction",
        "d"."SalesCategoryThresholdId", "d"."LowerThreshold", "d"."UpperThreshold",
        "d"."CategoryDescription", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorization-Id",
        "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevel-HashKey", "d"."FireAuditTrigger"
    FROM "Sales"."SalesCategoryThreshold" AS "d"
    WHERE "d"."SalesCategoryThresholdId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."SalesCategoryThresholdId", "d"."LowerThreshold", "d"."UpperThreshold",
        "d"."CategoryDescription", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorization-Id",
        "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevel-HashKey", "d"."FireAuditTrigger"
    FROM "Audit"."SalesSalesCategoryThresholdHistory" as "d"
    WHERE "d"."SalesCategoryThresholdId" = @Pky
```

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Programmability > Functions > Table-valued Functions > Audit.itvfnFindAllTransactionsByTablePkyOfSalesSales-  
CategoryThreshold

```
) ;  
  
GO
```

## Uses

---

[Audit].[SalesSalesCategoryThresholdHistory]  
[Sales].[SalesCategoryThreshold]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
Audit

## [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit".itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle
()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]
(@Pky int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS
"DBAction",
        "d"."SalesOrderVehicleId", "d"."CustomerId", "d"."StaffId", "d"."InvoiceNumber",
"d"."TotalSalePrice", "d"."SaleDate", "d"."SalesCategoryThresholdId", "d"."Transaction-
Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime",
"d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
    FROM "Sales"."SalesOrderVehicle" AS "d"
    WHERE "d"."SalesOrderVehicleId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."SalesOrderVehicleId", "d"."CustomerId", "d"."StaffId", "d"."InvoiceNumber",
"d"."TotalSalePrice", "d"."SaleDate", "d"."SalesCategoryThresholdId", "d"."Transaction-
Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime",
"d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
    FROM "Audit"."SalesSalesOrderVehicleHistory" as "d"
    WHERE "d"."SalesOrderVehicleId" = @Pky
);
```

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 >  
Programmability > Functions > Table-valued Functions > Audit.itvfnFindAllTransactionsByTablePkyOfSalesSales-  
OrderVehicle

GO

## Uses

---

[Audit].[SalesSalesOrderVehicleHistory]  
[Sales].[SalesOrderVehicle]  
[sdDate].[DateYYYYMMDD]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdShortTextString].[InvoiceNumber]  
Audit

## [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Audit".itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle-
-- Detail" ()
-- Description: A view to find all transactions by Primary Key

CREATE FUNCTION [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle-
Detail] (@Pky int)
RETURNS TABLE
AS
RETURN
(
    SELECT 'Current' as TransactionType, NULL AS "AuditDateTimeStamp", NULL AS
"DBAction",
        "d"."SalesOrderVehicleDetailId", "d"."SalesOrderVehicleId", "d"."LineItemNumber",
"d"."ManufacturerVehicleStockId", "d"."SalePrice", "d"."LineItemDiscount", "d"."Derived-
DiscountedSalePrice", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId",
"d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHash-
Key", "d"."FireAuditTrigger"
    FROM "Sales"."SalesOrderVehicleDetail" AS "d"
    WHERE "d"."SalesOrderVehicleDetailId" = @Pky
    UNION
    SELECT 'History' as TransactionType, "d"."AuditDateTimeStamp", "d"."DBAction",
        "d"."SalesOrderVehicleDetailId", "d"."SalesOrderVehicleId", "d"."LineItemNumber",
"d"."ManufacturerVehicleStockId", "d"."SalePrice", "d"."LineItemDiscount", "d"."Derived-
DiscountedSalePrice", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId",
"d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHash-
Key", "d"."FireAuditTrigger"
    FROM "Audit"."SalesSalesOrderVehicleDetailHistory" as "d"
    WHERE "d"."SalesOrderVehicleDetailId" = @Pky
```

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Programmability > Functions > Table-valued Functions > Audit.itvfnFindAllTransactionsByTablePkyOfSalesSales-  
OrderVehicleDetail

```
) ;  
  
GO
```

## Uses

---

[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Sales].[SalesOrderVehicleDetail]  
[sdFlag].[FlagYesNoString]  
[sdHashKey].[RowLevelHashKey]  
[sdKey].[SurrogateKeyInteger]  
[sdLongTextString].[Note]  
[sdOrdinalNumber].[TransactionNumber]  
[sdSequenceNumber].[LineItemNumber]  
Audit



## **Scalar-valued Functions**

### Objects

---

| Name   |
|--|
| Hashing.CreateSha256KeyFromJsonInputHumanResourcesStaff                |
| Hashing.CreateSha256KeyFromJsonInputLocaleCountry                      |
| Hashing.CreateSha256KeyFromJsonInputProductionManufacturerModel        |
| Hashing.CreateSha256KeyFromJsonInputProductionManufacturerVehicleMake  |
| Hashing.CreateSha256KeyFromJsonInputProductionManufacturerVehicleStock |
| Hashing.CreateSha256KeyFromJsonInputSalesCustomer                      |
| Hashing.CreateSha256KeyFromJsonInputSalesSalesCategoryThreshold        |
| Hashing.CreateSha256KeyFromJsonInputSalesSalesOrderVehicle             |
| Hashing.CreateSha256KeyFromJsonInputSalesSalesOrderVehicleDetail       |

## [Hashing].[CreateSha256KeyFromJsonInputHumanResourcesStaff]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputHumanResourcesStaff"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputHumanResourcesStaff] (@Pky int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."StaffId", "d"."StaffName", "d"."ManagerId", "d"."Department",
        "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime",
        "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
        Trigger"
        FROM "HumanResources"."Staff" as "d"
        WHERE "d"."StaffId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );

    RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);
END;
GO
```

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Programmability > Functions > Scalar-valued Functions > Hashing.CreateSha256KeyFromJsonInputHumanResourcesStaff

## Uses

---

[HumanResources].[Staff]  
Hashing

## [Hashing].[CreateSha256KeyFromJsonInputLocaleCountry]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputLocaleCountry"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputLocaleCountry] (@Pky int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."CountryId", "d"."CountryISO3", "d"."CountryName", "d"."CountryISO2",
        "d"."SalesRegion", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId",
        "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHash-
        Key", "d"."FireAuditTrigger"
        FROM "Locale"."Country" as "d"
        WHERE "d"."CountryId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );

    RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);
END;
GO
```

## Uses

---

[Locale].[Country]

Hashing

## [Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerModel]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputProductionManufacturerModel"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerModel]
(@Pky int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."ManufacturerModelId", "d"."ManufacturerVehicleMakeId",
        "d"."ManufacturerModelName", "d"."ManufacturerModelVariant", "d"."TransactionNumber",
        "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."Row-
        LevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
        FROM "Production"."ManufacturerModel" as "d"
        WHERE "d"."ManufacturerModelId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );

    RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);
END;
GO
```

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## Uses

---

[Production].[ManufacturerModel]  
Hashing

## [Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerVehicle-Make]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputProductionManufacturerVehicle-
Make"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerVehicle-
Make] (@Pky int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."ManufacturerVehicleMakeId", "d"."ManufacturerVehicleMakeName",
        "d"."CountryId", "d"."MarketingType", "d"."TransactionNumber", "d"."Note", "d"."User-
        AuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey",
        "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
        FROM "Production"."ManufacturerVehicleMake" as "d"
        WHERE "d"."ManufacturerVehicleMakeId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );

    RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);
END;
```



Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 >  
Programmability > Functions > Scalar-valued Functions > Hashing.CreateSha256KeyFromJsonInputProduction-  
ManufacturerVehicleMake

GO

## Uses

---

[Production].[ManufacturerVehicleMake]

Hashing

## [Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerVehicleStock]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputProductionManufacturerVehicle-
Stock"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerVehicle-
Stock] (@Pky int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."ManufacturerVehicleStockId", "d"."StockCode", "d"."ModelId",
        "d"."Cost", "d"."RepairsCharge", "d"."PartsCharge", "d"."DeliveryCharge", "d"."Is-
        PremiumRoadHandlingPackage", "d"."VehicleColor", "d"."CustomerComment", "d"."Purchase-
        Date", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStart-
        Time", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."Fire-
        AuditTrigger"
        FROM "Production"."ManufacturerVehicleStock" as "d"
        WHERE "d"."ManufacturerVehicleStockId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );
```

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Programmability > Functions > Scalar-valued Functions > Hashing.CreateSha256KeyFromJsonInputProduction-ManufacturerVehicleStock

```
RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);  
END;  
GO
```

## Uses

---

[Production].[ManufacturerVehicleStock]  
Hashing

## [Hashing].[CreateSha256KeyFromJsonInputSalesCustomer]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputSalesCustomer"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputSalesCustomer] (@Pky int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."CustomerId", "d"."CustomerName", "d"."CustomerAddress1", "d"."Customer-
Address2", "d"."CustomerTown", "d"."CustomerPostalCode", "d"."CountryId", "d"."Is-
CustomerReseller", "d"."IsCustomerCreditRisk", "d"."SpendCapacity", "d"."Transaction-
Number", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime", "d"."SysEndTime",
"d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
        FROM "Sales"."Customer" as "d"
        WHERE "d"."CustomerId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );

    RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);
END;
GO
```

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 >  
Programmability > Functions > Scalar-valued Functions > Hashing.CreateSha256KeyFromJsonInputSales-  
Customer



## Uses

---

[Sales].[Customer]  
Hashing

## [Hashing].[CreateSha256KeyFromJsonInputSalesSalesCategoryThreshold]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputSalesSalesCategoryThreshold"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputSalesSalesCategoryThreshold]
(@Pky int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."SalesCategoryThresholdId", "d"."LowerThreshold", "d"."UpperThreshold",
        "d"."CategoryDescription", "d"."TransactionNumber", "d"."Note", "d"."UserAuthorization-
        Id", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevel-
        HashKey", "d"."FireAuditTrigger"
        FROM "Sales"."SalesCategoryThreshold" as "d"
        WHERE "d"."SalesCategoryThresholdId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );

    RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);
END;
GO
```

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CategoryThreshold

## Uses

---

[Sales].[SalesCategoryThreshold]  
Hashing

## [Hashing].[CreateSha256KeyFromJsonInputSalesSalesOrderVehicle]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputSalesSalesOrderVehicle"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputSalesSalesOrderVehicle] (@Pky
int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."SalesOrderVehicleId", "d"."CustomerId", "d"."StaffId", "d"."Invoice-
        Number", "d"."TotalSalePrice", "d"."SaleDate", "d"."SalesCategoryThresholdId",
        "d"."TransactionNumber", "d"."Note", "d"."UserAuthorizationId", "d"."SysStartTime",
        "d"."SysEndTime", "d"."RowLevelHashKey", "d"."PriorRowLevelHashKey", "d"."FireAudit-
        Trigger"
        FROM "Sales"."SalesOrderVehicle" as "d"
        WHERE "d"."SalesOrderVehicleId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );

    RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);
END;
```



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GO

## Uses

---

[Sales].[SalesOrderVehicle]

Hashing

## [Hashing].[CreateSha256KeyFromJsonInputSalesSalesOrderVehicleDetail]

### Properties

| Property             | Value |
|----------------------|-------|
| ANSI Nulls On        | True  |
| Quoted Identifier On | True  |

### Parameters

| Name | Data Type | Max Length (Bytes) |
|------|-----------|--------------------|
| @Pky | int       | 4                  |

### SQL Script

```
-- Author: Ralph Granata
-- Creation Date: 11/30/2023
-- Modification Date: 11/30/2023

-- Function Name: "Hashing"."CreateSha256KeyFromJsonInputSalesSalesOrderVehicleDetail"
-- Description: Create SHA256 Hashkey from JSON Input

CREATE FUNCTION [Hashing].[CreateSha256KeyFromJsonInputSalesSalesOrderVehicleDetail]
(@Pky int)
RETURNS VARBINARY(32)
AS
BEGIN
    DECLARE @ColumnOutputInJSONIncludingNullValues nvarchar(max) =
    (
        SELECT "d"."SalesOrderVehicleDetailId", "d"."SalesOrderVehicleId", "d"."LineItem-
        Number", "d"."ManufacturerVehicleStockId", "d"."SalePrice", "d"."LineItemDiscount",
        "d"."DerivedDiscountedSalePrice", "d"."TransactionNumber", "d"."Note", "d"."User-
        AuthorizationId", "d"."SysStartTime", "d"."SysEndTime", "d"."RowLevelHashKey",
        "d"."PriorRowLevelHashKey", "d"."FireAuditTrigger"
        FROM "Sales"."SalesOrderVehicleDetail" as "d"
        WHERE "d"."SalesOrderVehicleDetailId" = @Pky
        FOR JSON AUTO, INCLUDE_NULL_VALUES
    );

    RETURN HASHBYTES('SHA2_256', @ColumnOutputInJSONIncludingNullValues);
END;
```

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OrderVehicleDetail

GO

## Uses

---

[Sales].[SalesOrderVehicleDetail]

Hashing



## User-Defined Data Types

### Objects

| Name   |
|--|
| dbo.dEuropeanCarManufacturer<br><i>The top level domain for European Car Manufacturer Data Model</i> |
| dEuropeanCarManufacturer.sdBlob  |
| dEuropeanCarManufacturer.sdDatetime  |
| dEuropeanCarManufacturer.sdFlag  |
| dEuropeanCarManufacturer.sdKey   |
| dEuropeanCarManufacturer.sdNumber  |
| dEuropeanCarManufacturer.sdString  |
| sdAddressesString.AddressString  |
| sdAddressesString.CountryString  |
| sdAddressesString.PostalCodeString   |
| sdAddressesString.RegionString   |
| sdAddressesString.TownString   |
| sdAudit.DbAction   |
| sdBlob.sdHashKey   |
| sdBusinessComponentString.DepartmentString   |
| sdCountryStringVariant.CountryISO2   |
| sdCountryStringVariant.CountryISO3   |
| sdDate.DateYYYYMMDD  |
| sdDateTime.DateTimestamp   |
| sdDateTime.sdDate  |
| sdFlag.FlagBit   |
| sdFlag.FlagYesNoString   |

|   |
|---|
| sdHashKey.RowLevelHashKey                           |
| sdKey.SurrogateKeyInteger                           |
| sdLongTextString.CustomerComments                   |
| sdLongTextString.Note                               |
| sdMarketingTextString.CustomerSpendCapacity         |
| sdMarketingTextString.VehicleSalesThresholdCategory |
| sdNameString.CustomerName                           |
| sdNameString.FirstNameString                        |
| sdNameString.FullNameString                         |
| sdNameString.LastNameString                         |
| sdNumber.Currency                                   |
| sdNumber.sdOrdinalNumber                            |
| sdNumber.sdSequenceNumber                           |
| sdOrdinalNumber.TransactionNumber                   |
| sdProjectString.GroupIProjectNameString             |
| sdProjectString.IndividualProjectNameString         |
| sdSequenceNumber.LineItemNumber                     |
| sdSequenceNumber.StockIdNumber                      |
| sdShortTextString.InvoiceNumber                     |
| sdShortTextString.StockCode                         |
| sdString.sdAddressesString                          |
| sdString.sdAudit                                    |
| sdString.sdBusinessComponentString                  |
| sdString.sdCountryStringVariant                     |
| sdString.sdLongTextString                           |

|  |
|--|
| sdString.sdMarketingTextString                   |
| sdString.sdNameString                            |
| sdString.sdProjectString                         |
| sdString.sdShortTextString                       |
| sdString.sdTimeString                            |
| sdString.sdVehicleString                         |
| sdTimeString.ClassTimeString                     |
| sdVehicleString.VehicleColor                     |
| sdVehicleString.VehicleIdentifier                |
| sdVehicleString.VehicleMakeString                |
| sdVehicleString.VehicleManufacturerMarketingType |
| sdVehicleString.VehicleModelString               |



## [dbo].[dEuropeanCarManufacturer]

### MS\_Description

---

The top level domain for European Car Manufacturer Data Model

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | char         |
| Length         | 18           |

### SQL Script

---

```
CREATE TYPE [dbo].[dEuropeanCarManufacturer] FROM char (18) NULL
GO
EXEC sp_addextendedproperty N'MS_Description', N'The top level domain for European Car
Manufacturer Data Model', 'SCHEMA', N'dbo', 'TYPE', N'dEuropeanCarManufacturer', NULL,
NULL
GO
```



## [dEuropeanCarManufacturer].[sdBlob]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | varbinary    |
| Length         | 32           |

### SQL Script

```
CREATE TYPE [dEuropeanCarManufacturer].[sdBlob] FROM varbinary (32) NULL
GO
```

### Uses

dEuropeanCarManufacturer





## [dEuropeanCarManufacturer].[sdDatetime]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | datetime     |
| Length         | 8            |

### SQL Script

---

```
CREATE TYPE [dEuropeanCarManufacturer].[sdDatetime] FROM datetime NULL
GO
```

### Uses

---

dEuropeanCarManufacturer



## [dEuropeanCarManufacturer].[sdFlag]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | int          |
| Length         | 4            |

### SQL Script

---

```
CREATE TYPE [dEuropeanCarManufacturer].[sdFlag] FROM int NULL
GO
```

### Uses

---

dEuropeanCarManufacturer



## [dEuropeanCarManufacturer].[sdKey]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | int          |
| Length         | 4            |

### SQL Script

---

```
CREATE TYPE [dEuropeanCarManufacturer].[sdKey] FROM int NULL
GO
```

### Uses

---

dEuropeanCarManufacturer



## [dEuropeanCarManufacturer].[sdNumber]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | int          |
| Length         | 4            |

### SQL Script

---

```
CREATE TYPE [dEuropeanCarManufacturer].[sdNumber] FROM int NULL
GO
```

### Uses

---

dEuropeanCarManufacturer



## [dEuropeanCarManufacturer].[sdString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

---

```
CREATE TYPE [dEuropeanCarManufacturer].[sdString] FROM nvarchar (20) NULL
GO
```

### Uses

---

dEuropeanCarManufacturer



## [sdAddressesString].[AddressString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 60           |

### SQL Script

---

```
CREATE TYPE [sdAddressesString].[AddressString] FROM nvarchar (60) NULL
GO
```

### Uses

---

sdAddressesString

### Used By

---

[Audit].[SalesCustomerHistory]

[Sales].[Customer]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]



## [sdAddressesString].[CountryString]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 50           |

### SQL Script

```
CREATE TYPE [sdAddressesString].[CountryString] FROM nvarchar (50) NULL
GO
```

### Uses

sdAddressesString

### Used By

[Audit].[LocaleCountryHistory]  
[Locale].[Country]  
[CustomViews].[uvw\_ChuanCustomerCountry]  
[CustomViews].[uvw\_ChuanMakeCountry]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_SalesText]  
[Sales].[uvw\_YearlySales]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]



## [sdAddressesString].[PostalCodeString]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 9            |

### SQL Script

```
CREATE TYPE [sdAddressesString].[PostalCodeString] FROM nvarchar (9) NULL
GO
```

### Uses

sdAddressesString

### Used By

[Audit].[SalesCustomerHistory]

[Sales].[Customer]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]





## [sdAddressesString].[RegionString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

---

```
CREATE TYPE [sdAddressesString].[RegionString] FROM nvarchar (20) NULL
GO
```

### Uses

---

sdAddressesString

### Used By

---

[Audit].[LocaleCountryHistory]

[Locale].[Country]

[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]



## [sdAddressesString].[TownString]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 30           |

### SQL Script

```
CREATE TYPE [sdAddressesString].[TownString] FROM nvarchar (30) NULL
GO
```

### Uses

sdAddressesString

### Used By

[Audit].[SalesCustomerHistory]

[Sales].[Customer]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]



## [sdAudit].[DbAction]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | char         |
| Length         | 1            |

### SQL Script

```
CREATE TYPE [sdAudit].[DbAction] FROM char (1) NULL
GO
```

### Uses

sdAudit

### Used By

[Audit].[HumanResourcesStaffHistory]  
[Audit].[LocaleCountryHistory]  
[Audit].[ProductionManufacturerModelHistory]  
[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesCustomerHistory]  
[Audit].[SalesSalesCategoryThresholdHistory]  
[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Audit].[SalesSalesOrderVehicleHistory]



## [sdBlob].[sdHashKey]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | varbinary    |
| Length         | 32           |

### SQL Script

---

```
CREATE TYPE [sdBlob].[sdHashKey] FROM varbinary (32) NULL
GO
```

### Uses

---

sdBlob



## [sdBusinessComponentString].[DepartmentString]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 15           |

### SQL Script

```
CREATE TYPE [sdBusinessComponentString].[DepartmentString] FROM nvarchar (15) NULL
GO
```

### Uses

sdBusinessComponentString

### Used By

[Audit].[HumanResourcesStaffHistory]  
[HumanResources].[Staff]  
[CustomViews].[uvw\_RalphEmployeeManager]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]



## [sdCountryStringVariant].[CountryISO2]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 2            |

### SQL Script

```
CREATE TYPE [sdCountryStringVariant].[CountryISO2] FROM nvarchar (2) NULL
GO
```

### Uses

sdCountryStringVariant

### Used By

[Audit].[LocaleCountryHistory]

[Locale].[Country]

[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]



## [sdCountryStringVariant].[CountryISO3]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nchar        |
| Length         | 3            |

### SQL Script

```
CREATE TYPE [sdCountryStringVariant].[CountryISO3] FROM nchar (3) NULL
GO
```

### Uses

sdCountryStringVariant

### Used By

[Audit].[LocaleCountryHistory]

[Locale].[Country]

[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]

## [sdDate].[DateYYYYMMDD]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | date         |
| Length         | 3            |

### SQL Script

```
CREATE TYPE [sdDate].[DateYYYYMMDD] FROM date NULL
GO
```

### Uses

sdDate

### Used By

[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesSalesOrderVehicleHistory]  
[Production].[ManufacturerVehicleStock]  
[Sales].[SalesOrderVehicle]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]



## [sdDateTime].[DateTimeStamp]

### Properties

| Property       | Value     |
|----------------|-----------|
| Nullability    | NOT NULL  |
| Base Type Name | datetime2 |
| Length         | 8         |

### SQL Script

```
CREATE TYPE [sdDateTime].[DateTimeStamp] FROM datetime2 NOT NULL
GO
```

### Uses

sdDateTime

### Used By

[Audit].[HumanResourcesStaffHistory]  
[Audit].[LocaleCountryHistory]  
[Audit].[ProductionManufacturerModelHistory]  
[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesCustomerHistory]  
[Audit].[SalesSalesCategoryThresholdHistory]  
[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Audit].[SalesSalesOrderVehicleHistory]  
[DbSecurity].[UserAuthorization]  
[HumanResources].[Staff]  
[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesCategoryThreshold]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]



## [sdDateTime].[sdDate]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | date         |
| Length         | 3            |

### SQL Script

---

```
CREATE TYPE [sdDateTime].[sdDate] FROM date NULL
GO
```

### Uses

---

sdDateTime



## [sdFlag].[FlagBit]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | int          |
| Length         | 4            |

### SQL Script

```
CREATE TYPE [sdFlag].[FlagBit] FROM int NULL
GO
```

### Uses

sdFlag

### Used By

[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesCustomerHistory]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]



## [sdFlag].[FlagYesNoString]

### Properties

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | char     |
| Length         | 1        |

### SQL Script

```
CREATE TYPE [sdFlag].[FlagYesNoString] FROM char (1) NOT NULL
GO
```

### Uses

sdFlag

### Used By

[Audit].[HumanResourcesStaffHistory]  
[Audit].[LocaleCountryHistory]  
[Audit].[ProductionManufacturerModelHistory]  
[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesCustomerHistory]  
[Audit].[SalesSalesCategoryThresholdHistory]  
[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Audit].[SalesSalesOrderVehicleHistory]  
[HumanResources].[Staff]  
[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesCategoryThreshold]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold]

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[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]


**[sdHashKey].[RowLevelHashKey]**

## Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | varbinary    |
| Length         | 32           |

## SQL Script

```
CREATE TYPE [sdHashKey].[RowLevelHashKey] FROM varbinary (32) NULL
GO
```

## Uses

sdHashKey

## Used By

[Audit].[HumanResourcesStaffHistory]  
 [Audit].[LocaleCountryHistory]  
 [Audit].[ProductionManufacturerModelHistory]  
 [Audit].[ProductionManufacturerVehicleMakeHistory]  
 [Audit].[ProductionManufacturerVehicleStockHistory]  
 [Audit].[SalesCustomerHistory]  
 [Audit].[SalesSalesCategoryThresholdHistory]  
 [Audit].[SalesSalesOrderVehicleDetailHistory]  
 [Audit].[SalesSalesOrderVehicleHistory]  
 [HumanResources].[Staff]  
 [Locale].[Country]  
 [Production].[ManufacturerModel]  
 [Production].[ManufacturerVehicleMake]  
 [Production].[ManufacturerVehicleStock]  
 [Sales].[Customer]  
 [Sales].[SalesCategoryThreshold]  
 [Sales].[SalesOrderVehicle]  
 [Sales].[SalesOrderVehicleDetail]  
 [Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]  
 [Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]  
 [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]  
 [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]  
 [Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
 [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]  
 [Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold]

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Programmability > Types > User-Defined Data Types > sdHashKey.RowLevelHashKey

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]

## [sdKey].[SurrogateKeyInteger]

### Properties

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | int      |
| Length         | 4        |

### SQL Script

```
CREATE TYPE [sdKey].[SurrogateKeyInteger] FROM int NOT NULL
GO
```

### Uses

sdKey

### Used By

[Audit].[HumanResourcesStaffHistory]  
[Audit].[LocaleCountryHistory]  
[Audit].[ProductionManufacturerModelHistory]  
[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesCustomerHistory]  
[Audit].[SalesSalesCategoryThresholdHistory]  
[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Audit].[SalesSalesOrderVehicleHistory]  
[DbSecurity].[UserAuthorization]  
[HumanResources].[Staff]  
[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesCategoryThreshold]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[Audit].[vwFindUniqueTablePkyHumanResourcesStaff]  
[Audit].[vwFindUniqueTablePkyLocaleCountry]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerModel]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleMake]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleStock]  
[Audit].[vwFindUniqueTablePkySalesCustomer]



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[Audit].[vwFindUniqueTablePkySalesSalesCategoryThreshold]  
[Audit].[vwFindUniqueTablePkySalesSalesOrderVehicle]  
[Audit].[vwFindUniqueTablePkySalesSalesOrderVehicleDetail]  
[Sales].[uvw\_SalesByCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]

## [sdLongTextString].[CustomerComments]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 200          |

### SQL Script

```
CREATE TYPE [sdLongTextString].[CustomerComments] FROM nvarchar (200) NULL
GO
```

### Uses

sdLongTextString

### Used By

[Audit].[ProductionManufacturerVehicleStockHistory]

[Production].[ManufacturerVehicleStock]

[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]



## [sdLongTextString].[Note]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 100          |

### SQL Script

```
CREATE TYPE [sdLongTextString].[Note] FROM nvarchar (100) NULL
GO
```

### Uses

sdLongTextString

### Used By

[Audit].[HumanResourcesStaffHistory]  
[Audit].[LocaleCountryHistory]  
[Audit].[ProductionManufacturerModelHistory]  
[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesCustomerHistory]  
[Audit].[SalesSalesCategoryThresholdHistory]  
[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Audit].[SalesSalesOrderVehicleHistory]  
[HumanResources].[Staff]  
[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesCategoryThreshold]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 >  
Programmability > Types > User-Defined Data Types > sdLongTextString.Note

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]



## [sdMarketingTextString].[CustomerSpendCapacity]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 15           |

### SQL Script

---

```
CREATE TYPE [sdMarketingTextString].[CustomerSpendCapacity] FROM nvarchar (15) NULL
GO
```

### Uses

---

sdMarketingTextString

### Used By

---

[Audit].[SalesCustomerHistory]

[Sales].[Customer]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]



## [sdMarketingTextString].[VehicleSalesThresholdCategory]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

```
CREATE TYPE [sdMarketingTextString].[VehicleSalesThresholdCategory] FROM nvarchar (20)
NULL
GO
```

### Uses

sdMarketingTextString

### Used By

[Audit].[SalesSalesCategoryThresholdHistory]



## [sdNameString].[CustomerName]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 65           |

### SQL Script

```
CREATE TYPE [sdNameString].[CustomerName] FROM nvarchar (65) NULL
GO
```

### Uses

sdNameString

### Used By

[Audit].[SalesCustomerHistory]  
[Sales].[Customer]  
[CustomViews].[uvw\_ChuanCustomerCountry]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_YearlySales]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]



## [sdNameString].[FirstNameString]

### Properties

---

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | nvarchar |
| Length         | 25       |

### SQL Script

---

```
CREATE TYPE [sdNameString].[FirstNameString] FROM nvarchar (25) NOT NULL
GO
```

### Uses

---

sdNameString

### Used By

---

[DbSecurity].[UserAuthorization]





## [sdNameString].[FullNameString]

### Properties

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | nvarchar |
| Length         | 60       |

### SQL Script

```
CREATE TYPE [sdNameString].[FullNameString] FROM nvarchar (60) NOT NULL
GO
```

### Uses

sdNameString

### Used By

[Audit].[HumanResourcesStaffHistory]  
[HumanResources].[Staff]  
[CustomViews].[uvw\_ChuanStaffDiscountGiven]  
[CustomViews].[uvw\_ChuanStaffSales]  
[CustomViews].[uvw\_RalphEmployeeManager]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]



## [sdNameString].[LastNameString]

### Properties

---

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | nvarchar |
| Length         | 35       |

### SQL Script

---

```
CREATE TYPE [sdNameString].[LastNameString] FROM nvarchar (35) NOT NULL
GO
```

### Uses

---

sdNameString

### Used By

---

[DbSecurity].[UserAuthorization]



## [sdNumber].[Currency]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | numeric      |
| Length         | 9            |

### SQL Script

```
CREATE TYPE [sdNumber].[Currency] FROM numeric (18, 2) NULL
GO
```

### Uses

sdNumber

### Used By

[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesSalesCategoryThresholdHistory]  
[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Audit].[SalesSalesOrderVehicleHistory]  
[Production].[ManufacturerVehicleStock]  
[Sales].[SalesCategoryThreshold]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[CustomViews].[uvw\_RalphMakeModelPartsCost]  
[Sales].[uvw\_SalesText]



## [sdNumber].[sdOrdinalNumber]

### Properties

---

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | int      |
| Length         | 4        |

### SQL Script

---

```
CREATE TYPE [sdNumber].[sdOrdinalNumber] FROM int NOT NULL
GO
```

### Uses

---

sdNumber



## [sdNumber].[sdSequenceNumber]

### Properties

---

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | int      |
| Length         | 4        |

### SQL Script

---

```
CREATE TYPE [sdNumber].[sdSequenceNumber] FROM int NOT NULL
GO
```

### Uses

---

sdNumber

## [sdOrdinalNumber].[TransactionNumber]

### Properties

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | int      |
| Length         | 4        |

### SQL Script

```
CREATE TYPE [sdOrdinalNumber].[TransactionNumber] FROM int NOT NULL
GO
```

### Uses

sdOrdinalNumber

### Used By

[Audit].[HumanResourcesStaffHistory]  
[Audit].[LocaleCountryHistory]  
[Audit].[ProductionManufacturerModelHistory]  
[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesCustomerHistory]  
[Audit].[SalesSalesCategoryThresholdHistory]  
[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Audit].[SalesSalesOrderVehicleHistory]  
[HumanResources].[Staff]  
[Locale].[Country]  
[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]  
[Sales].[Customer]  
[Sales].[SalesCategoryThreshold]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold]

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 >  
Programmability > Types > User-Defined Data Types > sdOrdinalNumber.TransactionNumber

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]



## [sdProjectString].[GroupIProjectNameString]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

```
CREATE TYPE [sdProjectString].[GroupIProjectNameString] FROM nvarchar (20) NULL
GO
```

### Uses

sdProjectString

### Used By

[DbSecurity].[UserAuthorization]





## [sdProjectString].[IndividualProjectNameString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 60           |

### SQL Script

---

```
CREATE TYPE [sdProjectString].[IndividualProjectNameString] FROM nvarchar (60) NULL
GO
```

### Uses

---

sdProjectString

### Used By

---

[DbSecurity].[UserAuthorization]



## [sdSequenceNumber].[LineItemNumber]

### Properties

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | int      |
| Length         | 4        |

### SQL Script

```
CREATE TYPE [sdSequenceNumber].[LineItemNumber] FROM int NOT NULL
GO
```

### Uses

sdSequenceNumber

### Used By

[Audit].[SalesSalesOrderVehicleDetailHistory]

[Sales].[SalesOrderVehicleDetail]

[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]



## [sdSequenceNumber].[StockIdNumber]

### Properties

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | int      |
| Length         | 4        |

### SQL Script

```
CREATE TYPE [sdSequenceNumber].[StockIdNumber] FROM int NOT NULL
GO
```

### Uses

sdSequenceNumber



## [sdShortTextString].[InvoiceNumber]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | varchar      |
| Length         | 8            |

### SQL Script

```
CREATE TYPE [sdShortTextString].[InvoiceNumber] FROM varchar (8) NULL
GO
```

### Uses

sdShortTextString

### Used By

[Audit].[SalesSalesOrderVehicleHistory]  
[Sales].[SalesOrderVehicle]  
[Sales].[uvw\_SalesByCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]



## [sdShortTextString].[StockCode]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 50           |

### SQL Script

```
CREATE TYPE [sdShortTextString].[StockCode] FROM nvarchar (50) NULL
GO
```

### Uses

sdShortTextString

### Used By

[Audit].[ProductionManufacturerVehicleStockHistory]

[Production].[ManufacturerVehicleStock]

[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]



## [sdString].[sdAddressesString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

---

```
CREATE TYPE [sdString].[sdAddressesString] FROM nvarchar (20) NULL
GO
```

### Uses

---

sdString



## [sdString].[sdAudit]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | char         |
| Length         | 1            |

### SQL Script

---

```
CREATE TYPE [sdString].[sdAudit] FROM char (1) NULL
GO
```

### Uses

---

sdString

## [sdString].[sdBusinessComponentString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

---

```
CREATE TYPE [sdString].[sdBusinessComponentString] FROM nvarchar (20) NULL
GO
```

### Uses

---

sdString





## [sdString].[sdCountryStringVariant]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

---

```
CREATE TYPE [sdString].[sdCountryStringVariant] FROM nvarchar (20) NULL
GO
```

### Uses

---

sdString



## [sdString].[sdLongTextString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 200          |

### SQL Script

---

```
CREATE TYPE [sdString].[sdLongTextString] FROM nvarchar (200) NULL
GO
```

### Uses

---

sdString



## [sdString].[sdMarketingTextString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 25           |

### SQL Script

---

```
CREATE TYPE [sdString].[sdMarketingTextString] FROM nvarchar (25) NULL
GO
```

### Uses

---

sdString



## [sdString].[sdNameString]

### Properties

---

| Property       | Value    |
|----------------|----------|
| Nullability    | NOT NULL |
| Base Type Name | nvarchar |
| Length         | 50       |

### SQL Script

---

```
CREATE TYPE [sdString].[sdNameString] FROM nvarchar (50) NOT NULL
GO
```

### Uses

---

sdString



## [sdString].[sdProjectString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 50           |

### SQL Script

---

```
CREATE TYPE [sdString].[sdProjectString] FROM nvarchar (50) NULL
GO
```

### Uses

---

sdString



## [sdString].[sdShortTextString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 50           |

### SQL Script

---

```
CREATE TYPE [sdString].[sdShortTextString] FROM nvarchar (50) NULL
GO
```

### Uses

---

sdString



## [sdString].[sdTimeString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

---

```
CREATE TYPE [sdString].[sdTimeString] FROM nvarchar (20) NULL
GO
```

### Uses

---

sdString



## [sdString].[sdVehicleString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 50           |

### SQL Script

---

```
CREATE TYPE [sdString].[sdVehicleString] FROM nvarchar (50) NULL
GO
```

### Uses

---

sdString





## [sdTimeString].[ClassTimeString]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nchar        |
| Length         | 5            |

### SQL Script

---

```
CREATE TYPE [sdTimeString].[ClassTimeString] FROM nchar (5) NULL
GO
```

### Uses

---

sdTimeString

### Used By

---

[DbSecurity].[UserAuthorization]



## [sdVehicleString].[VehicleColor]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 20           |

### SQL Script

```
CREATE TYPE [sdVehicleString].[VehicleColor] FROM nvarchar (20) NULL
GO
```

### Uses

sdVehicleString

### Used By

[Audit].[ProductionManufacturerVehicleStockHistory]  
[Production].[ManufacturerVehicleStock]  
[Sales].[uvw\_PivotTable]  
[Sales].[uvw\_SalesByCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]



## [sdVehicleString].[VehicleIdentifier]

### Properties

---

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 150          |

### SQL Script

---

```
CREATE TYPE [sdVehicleString].[VehicleIdentifier] FROM nvarchar (150) NULL
GO
```

### Uses

---

sdVehicleString



## [sdVehicleString].[VehicleMakeString]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 30           |

### SQL Script

```
CREATE TYPE [sdVehicleString].[VehicleMakeString] FROM nvarchar (30) NULL
GO
```

### Uses

sdVehicleString

### Used By

[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Production].[ManufacturerVehicleMake]  
[CustomViews].[uvw\_ChuanMakeCountry]  
[CustomViews].[uvw\_ChuanModelMake]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[CustomViews].[uvw\_RalphMakeModelPartsCost]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_SalesText]  
[Sales].[uvw\_StockPrices]  
[Sales].[uvw\_YearlySales]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]



## [sdVehicleString].[VehicleManufacturerMarketingType]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 25           |

### SQL Script

```
CREATE TYPE [sdVehicleString].[VehicleManufacturerMarketingType] FROM nvarchar (25)
NULL
GO
```

### Uses

sdVehicleString

### Used By

[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Production].[ManufacturerVehicleMake]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]



## [sdVehicleString].[VehicleModelString]

### Properties

| Property       | Value        |
|----------------|--------------|
| Nullability    | NULL allowed |
| Base Type Name | nvarchar     |
| Length         | 35           |

### SQL Script

```
CREATE TYPE [sdVehicleString].[VehicleModelString] FROM nvarchar (35) NULL
GO
```

### Uses

sdVehicleString

### Used By

[Audit].[ProductionManufacturerModelHistory]  
[Production].[ManufacturerModel]  
[CustomViews].[uvw\_ChuanModelMake]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[CustomViews].[uvw\_RalphMakeModelPartsCost]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_StockPrices]  
[Sales].[uvw\_YearlySales]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]

## Sequences

### Objects

| Name  |
|---|
| SequenceIdInsert.Audit_HumanResourcesStaffHistory_Id                |
| SequenceIdInsert.Audit_LocaleCountryHistory_Id                      |
| SequenceIdInsert.Audit_ProductionManufacturerModelHistory_Id        |
| SequenceIdInsert.Audit_ProductionManufacturerVehicleMakeHistory_Id  |
| SequenceIdInsert.Audit_ProductionManufacturerVehicleStockHistory_Id |
| SequenceIdInsert.Audit_SalesCustomerHistory_Id                      |
| SequenceIdInsert.Audit_SalesSalesCategoryThresholdHistory_Id        |
| SequenceIdInsert.Audit_SalesSalesOrderVehicleDetailHistory_Id       |
| SequenceIdInsert.Audit_SalesSalesOrderVehicleHistory_Id             |
| SequenceIdInsert.DbSecurity_UserAuthorization_Id                    |
| SequenceIdInsert.HumanResources_Staff_Id                            |
| SequenceIdInsert.Locale_Country_Id                                  |
| SequenceIdInsert.Production_ManufacturerModel_Id                    |
| SequenceIdInsert.Production_ManufacturerVehicleMake_Id              |
| SequenceIdInsert.Production_ManufacturerVehicleStock_Id             |
| SequenceIdInsert.Sales_Customer_Id                                  |
| SequenceIdInsert.Sales_SalesCategoryThreshold_Id                    |
| SequenceIdInsert.Sales_SalesOrderVehicle_Id                         |
| SequenceIdInsert.Sales_SalesOrderVehicleDetail_Id                   |

## [SequenceIdInsert].[Audit\_HumanResourcesStaffHistory\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_HumanResourcesStaffHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert



## [SequenceIdInsert].[Audit\_LocaleCountryHistory\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_LocaleCountryHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Audit\_ProductionManufacturerModelHistory\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_ProductionManufacturerModelHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Audit\_ProductionManufacturerVehicleMakeHistory\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_ProductionManufacturerVehicleMakeHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Audit\_ProductionManufacturerVehicleStockHistory\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_ProductionManufacturerVehicleStockHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Audit\_SalesCustomerHistory\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_SalesCustomerHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Audit\_SalesSalesCategoryThresholdHistory\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_SalesSalesCategoryThresholdHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Audit\_SalesSalesOrderVehicleDetailHistory\_Id]

### Properties

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_SalesSalesOrderVehicleDetailHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

SequenceIdInsert



## [SequenceIdInsert].[Audit\_SalesSalesOrderVehicleHistory\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Audit_SalesSalesOrderVehicleHistory_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert





## [SequenceIdInsert].[DbSecurity\_UserAuthorization\_Id]

### Properties

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

```
CREATE SEQUENCE [SequenceIdInsert].[DbSecurity_UserAuthorization_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

SequenceIdInsert

## [SequenceIdInsert].[HumanResources\_Staff\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[HumanResources_Staff_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Locale\_Country\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Locale_Country_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert



## [SequenceIdInsert].[Production\_ManufacturerModel\_Id]

### Properties

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

```
CREATE SEQUENCE [SequenceIdInsert].[Production_ManufacturerModel_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

SequenceIdInsert

## [SequenceIdInsert].[Production\_ManufacturerVehicleMake\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Production_ManufacturerVehicleMake_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Production\_ManufacturerVehicleStock\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Production_ManufacturerVehicleStock_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Sales\_Customer\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Sales_Customer_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## [SequenceIdInsert].[Sales\_SalesCategoryThreshold\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Sales_SalesCategoryThreshold_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert





## [SequenceIdInsert].[Sales\_SalesOrderVehicle\_Id]

### Properties

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

```
CREATE SEQUENCE [SequenceIdInsert].[Sales_SalesOrderVehicle_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

SequenceIdInsert

## [SequenceIdInsert].[Sales\_SalesOrderVehicleDetail\_Id]

### Properties

---

| Property | Value            |
|----------|------------------|
| Owner    | SequenceIdInsert |

### SQL Script

---

```
CREATE SEQUENCE [SequenceIdInsert].[Sales_SalesOrderVehicleDetail_Id]
AS bigint
START WITH 1
INCREMENT BY 1
MINVALUE -9223372036854775808
MAXVALUE 9223372036854775807
NO CYCLE
CACHE
GO
```

### Uses

---

SequenceIdInsert

## **Users**

### Objects

---

| Name  |
|-------|
| dbo   |
| guest |



### Properties


| Property       | Value   |
|----------------|---------|
| Type           | SqlUser |
| Login Name     | sa      |
| Default Schema | dbo     |

### Database Level Permissions

| Type    | Action |
|---------|--------|
| CONNECT | Grant  |

### SQL Script

GO

 **guest**

### Properties

---

| Property       | Value   |
|----------------|---------|
| Type           | SqlUser |
| Default Schema | guest   |

### SQL Script

---

GO

## Database Roles

### Objects

| Name              |
|-------------------|
| db_accessadmin    |
| db_backupoperator |
| db_datareader     |
| db_datawriter     |
| db_ddladmin       |
| db_denydatareader |
| db_denydatawriter |
| db_owner          |
| db_securityadmin  |
| public            |

## db\_accessadmin

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## db\_backupoperator

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## db\_datareader

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## db\_datawriter

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## db\_ddladmin

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## db\_denydatareader

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## db\_denydatawriter

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## db\_owner

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## db\_securityadmin



Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

 public

Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## Schemas

### Objects

| Name                      |
|---------------------------|
| Audit                     |
| CustomViews               |
| DbSecurity                |
| dEuropeanCarManufacturer  |
| Hashing                   |
| HumanResources            |
| Locale                    |
| Output                    |
| Production                |
| RawData                   |
| Sales                     |
| sdAddressesString         |
| sdAudit                   |
| sdBlob                    |
| sdBusinessComponentString |
| sdCountryStringVariant    |
| sdDate                    |
| sdDateTime                |
| sdFlag                    |
| sdHashKey                 |
| sdKey                     |
| sdLongTextString          |
| sdMarketingTextString     |
| sdNameString              |
| sdNumber                  |
| sdOrdinalNumber           |
| sdProjectString           |
| sdSequenceNumber          |
| sdShortTextString         |
| sdString                  |
| sdTimeString              |
| sdVehicleString           |
| SequenceIdInsert          |
| Utils                     |

Project > 127.0.0.1,13001 > User databases > Group3-EuropeanCarManufacturerSQLServer2019 > Security > Schemas

## Audit

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

```
CREATE SCHEMA [Audit]
AUTHORIZATION [dbo]
GO
```

### Used By

[Audit].[HumanResourcesStaffHistory]  
[Audit].[LocaleCountryHistory]  
[Audit].[ProductionManufacturerModelHistory]  
[Audit].[ProductionManufacturerVehicleMakeHistory]  
[Audit].[ProductionManufacturerVehicleStockHistory]  
[Audit].[SalesCustomerHistory]  
[Audit].[SalesSalesCategoryThresholdHistory]  
[Audit].[SalesSalesOrderVehicleDetailHistory]  
[Audit].[SalesSalesOrderVehicleHistory]  
[Audit].[vwFindUniqueTablePkyHumanResourcesStaff]  
[Audit].[vwFindUniqueTablePkyLocaleCountry]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerModel]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleMake]  
[Audit].[vwFindUniqueTablePkyProductionManufacturerVehicleStock]  
[Audit].[vwFindUniqueTablePkySalesCustomer]  
[Audit].[vwFindUniqueTablePkySalesSalesCategoryThreshold]  
[Audit].[vwFindUniqueTablePkySalesSalesOrderVehicle]  
[Audit].[vwFindUniqueTablePkySalesSalesOrderVehicleDetail]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfHumanResourcesStaff]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfLocaleCountry]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerModel]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleMake]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfProductionManufacturerVehicleStock]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesCustomer]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesCategoryThreshold]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicle]  
[Audit].[itvfnFindAllTransactionsByTablePkyOfSalesSalesOrderVehicleDetail]

## CustomViews

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

```
CREATE SCHEMA [CustomViews]
AUTHORIZATION [dbo]
GO
```

### Used By

[CustomViews].[uvw\_ChuanCustomerCountry]  
[CustomViews].[uvw\_ChuanMakeCountry]  
[CustomViews].[uvw\_ChuanModelMake]  
[CustomViews].[uvw\_ChuanStaffDiscountGiven]  
[CustomViews].[uvw\_ChuanStaffSales]  
[CustomViews].[uvw\_MehrshadVehicleCost]  
[CustomViews].[uvw\_MehrshadYearlyCustomerSales]  
[CustomViews].[uvw\_MehrshadYearlySalesProfits]  
[CustomViews].[uvw\_RalphEmployeeManager]  
[CustomViews].[uvw\_RalphMakeModelPartsCost]  
[CustomViews].[uvw\_RalphSalesPerCategoryThreshold]

## DbSecurity

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [DbSecurity]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[DbSecurity].[UserAuthorization]

## dEuropeanCarManufacturer

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

```
CREATE SCHEMA [dEuropeanCarManufacturer]
AUTHORIZATION [dbo]
GO
```

### Used By

[dEuropeanCarManufacturer].[sdBlob]  
[dEuropeanCarManufacturer].[sdDatetime]  
[dEuropeanCarManufacturer].[sdFlag]  
[dEuropeanCarManufacturer].[sdKey]  
[dEuropeanCarManufacturer].[sdNumber]  
[dEuropeanCarManufacturer].[sdString]

## Hashing

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

```
CREATE SCHEMA [Hashing]
AUTHORIZATION [dbo]
GO
```

### Used By

[Hashing].[CreateSha256KeyFromJsonInputHumanResourcesStaff]  
[Hashing].[CreateSha256KeyFromJsonInputLocaleCountry]  
[Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerModel]  
[Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerVehicleMake]  
[Hashing].[CreateSha256KeyFromJsonInputProductionManufacturerVehicleStock]  
[Hashing].[CreateSha256KeyFromJsonInputSalesCustomer]  
[Hashing].[CreateSha256KeyFromJsonInputSalesSalesCategoryThreshold]  
[Hashing].[CreateSha256KeyFromJsonInputSalesSalesOrderVehicle]  
[Hashing].[CreateSha256KeyFromJsonInputSalesSalesOrderVehicleDetail]



## HumanResources

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [HumanResources]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[HumanResources].[Staff]

## Locale

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [Locale]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[Locale].[Country]

## Output

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [Output]
AUTHORIZATION [dbo]
GO
```

## Production

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [Production]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[Production].[ManufacturerModel]  
[Production].[ManufacturerVehicleMake]  
[Production].[ManufacturerVehicleStock]

## RawData

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [RawData]
AUTHORIZATION [dbo]
GO
```

## Sales

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [Sales]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[Sales].[Customer]  
[Sales].[SalesCategoryThreshold]  
[Sales].[SalesOrderVehicle]  
[Sales].[SalesOrderVehicleDetail]  
[Sales].[uvw\_PivotTable]  
[Sales].[uvw\_Sales2018]  
[Sales].[uvw\_SalesByCountry]  
[Sales].[uvw\_SalesText]  
[Sales].[uvw\_StockPrices]  
[Sales].[uvw\_YearlySales]

## sdAddressesString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

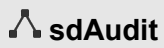
---

```
CREATE SCHEMA [sdAddressesString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdAddressesString].[AddressString]  
[sdAddressesString].[CountryString]  
[sdAddressesString].[PostalCodeString]  
[sdAddressesString].[RegionString]  
[sdAddressesString].[TownString]



## Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## SQL Script

---

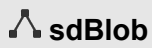
```
CREATE SCHEMA [sdAudit]
AUTHORIZATION [dbo]
GO
```

## Used By

---

[sdAudit].[DbAction]





## Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## SQL Script

```
CREATE SCHEMA [sdBlob]
AUTHORIZATION [dbo]
GO
```

## Used By

[sdBlob].[sdHashKey]

## sdBusinessComponentString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdBusinessComponentString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdBusinessComponentString].[DepartmentString]

## sdCountryStringVariant

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdCountryStringVariant]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdCountryStringVariant].[CountryISO2]  
[sdCountryStringVariant].[CountryISO3]

## sdDate

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdDate]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdDate].[DateYYYYMMDD]

## sdDateTime

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdDateTime]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdDateTime].[DateTimeStamp]  
[sdDateTime].[sdDate]



## Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## SQL Script

---

```
CREATE SCHEMA [sdFlag]
AUTHORIZATION [dbo]
GO
```

## Used By

---

[sdFlag].[FlagBit]  
[sdFlag].[FlagYesNoString]

## sdHashKey

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdHashKey]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdHashKey].[RowLevelHashKey]



## Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

## SQL Script

```
CREATE SCHEMA [sdKey]
AUTHORIZATION [dbo]
GO
```

## Used By

[sdKey].[SurrogateKeyInteger]



## sdLongTextString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdLongTextString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdLongTextString].[CustomerComments]  
[sdLongTextString].[Note]

## sdMarketingTextString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdMarketingTextString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdMarketingTextString].[CustomerSpendCapacity]  
[sdMarketingTextString].[VehicleSalesThresholdCategory]

## sdNameString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdNameString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdNameString].[CustomerName]  
[sdNameString].[FirstNameString]  
[sdNameString].[FullNameString]  
[sdNameString].[LastNameString]

## sdNumber

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdNumber]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdNumber].[Currency]  
[sdNumber].[sdOrdinalNumber]  
[sdNumber].[sdSequenceNumber]

## sdOrdinalNumber

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdOrdinalNumber]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdOrdinalNumber].[TransactionNumber]

## sdProjectString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdProjectString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdProjectString].[GroupProjectNameString]  
[sdProjectString].[IndividualProjectNameString]

## sdSequenceNumber

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdSequenceNumber]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdSequenceNumber].[LineItemNumber]  
[sdSequenceNumber].[StockIdNumber]

## sdShortTextString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdShortTextString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdShortTextString].[InvoiceNumber]  
[sdShortTextString].[StockCode]



## sdString

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

```
CREATE SCHEMA [sdString]
AUTHORIZATION [dbo]
GO
```

### Used By

[sdString].[sdAddressesString]  
[sdString].[sdAudit]  
[sdString].[sdBusinessComponentString]  
[sdString].[sdCountryStringVariant]  
[sdString].[sdLongTextString]  
[sdString].[sdMarketingTextString]  
[sdString].[sdNameString]  
[sdString].[sdProjectString]  
[sdString].[sdShortTextString]  
[sdString].[sdTimeString]  
[sdString].[sdVehicleString]

## sdTimeString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdTimeString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdTimeString].[ClassTimeString]

## sdVehicleString

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [sdVehicleString]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[sdVehicleString].[VehicleColor]  
[sdVehicleString].[VehicleIdentifier]  
[sdVehicleString].[VehicleMakeString]  
[sdVehicleString].[VehicleManufacturerMarketingType]  
[sdVehicleString].[VehicleModelString]

## SequenceIdInsert

### Properties

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

```
CREATE SCHEMA [SequenceIdInsert]
AUTHORIZATION [dbo]
GO
```

### Used By

[SequenceIdInsert].[Audit\_HumanResourcesStaffHistory\_Id]  
[SequenceIdInsert].[Audit\_LocaleCountryHistory\_Id]  
[SequenceIdInsert].[Audit\_ProductionManufacturerModelHistory\_Id]  
[SequenceIdInsert].[Audit\_ProductionManufacturerVehicleMakeHistory\_Id]  
[SequenceIdInsert].[Audit\_ProductionManufacturerVehicleStockHistory\_Id]  
[SequenceIdInsert].[Audit\_SalesCustomerHistory\_Id]  
[SequenceIdInsert].[Audit\_SalesSalesCategoryThresholdHistory\_Id]  
[SequenceIdInsert].[Audit\_SalesSalesOrderVehicleDetailHistory\_Id]  
[SequenceIdInsert].[Audit\_SalesSalesOrderVehicleHistory\_Id]  
[SequenceIdInsert].[DbSecurity\_UserAuthorization\_Id]  
[SequenceIdInsert].[HumanResources\_Staff\_Id]  
[SequenceIdInsert].[Locale\_Country\_Id]  
[SequenceIdInsert].[Production\_ManufacturerModel\_Id]  
[SequenceIdInsert].[Production\_ManufacturerVehicleMake\_Id]  
[SequenceIdInsert].[Production\_ManufacturerVehicleStock\_Id]  
[SequenceIdInsert].[Sales\_Customer\_Id]  
[SequenceIdInsert].[Sales\_SalesCategoryThreshold\_Id]  
[SequenceIdInsert].[Sales\_SalesOrderVehicle\_Id]  
[SequenceIdInsert].[Sales\_SalesOrderVehicleDetail\_Id]

## Utils

### Properties

---

| Property | Value |
|----------|-------|
| Owner    | dbo   |

### SQL Script

---

```
CREATE SCHEMA [Utils]
AUTHORIZATION [dbo]
GO
```

### Used By

---

[Utils].[uvw\_FindColumnDefinitionPlusDefaultAndCheckConstraint]