localhost, 13001 Documentation

PrestigeCarsNormalized

Server localhost, 13001

Author timos

Create Sunday, May 1, 2022 12:40:29 AM

d

File C:\Users\timos\OneDrive\Desktop\timoCollegeWork\CSCI331\Project 3 Stuff\To Submit For Project 2.5\Database Backup, Script, and Documentation\G9-5_PrestigeCarsNormalized_Doc-2022-05-01T00-40-

29.pdf

Table of Contents

able of Contents	2
localhost,13001	5
User databases	
PrestigeCarsNormalized Database	8
Tables	10
[Data].[Address]	11
[Data].[Country]	
[Data].[CountryCurrency]	
[Data].[Currency]	20
[Data].[Customer]	22
[Data].[Make]	24
[Data].[Model]	26
[Data].[ModelVariant]	29
[Data].[PivotTable]	31
[Data].[Sale]	34
[Data].[SaleDetail]	37
[Data].[SalesRegion]	40
[Data].[Stock]	42
[Data].[StockColor]	44
[Data].[StockDetail]	46
[Data].[Town]	49
[DbSecurity].[UserAuthorization]	51
[Process].[WorkFlowStep]	53
[Reference].[Budget]	55
[Reference].[Forex]	57
[Reference].[SalesBudgets]	59
[Reference].[SalesCategory]	61
[Reference].[Staff]	63
[Reference].[StaffHierarchy]	65
区 Views	67
[Data].[uvw_InvoiceDetail]	68
[Data].[uvw_SaleByCountry]	70
[Output].[uvw_StockPrices]	72
[Reference].[uvw_MarketingCategories]	74
[Reference].[uvw_MarketingInformation]	76
[SourceData].[uvw_SalesInPounds]	79
[SourceData].[uvw_SalesText]	81

[Utils].[uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint]	83
Table-valued Functions	86
[DataTransfer].[tvf_SalesByYear]	87
Reference].[tvf_YearlySales]	89
User-Defined Data Types	91
[dDateTime].[DateMM]	
[dDateTime].[DateTimeYYYYMMDD-HH:MM:SS]	
[dDateTime].[DateYYYY]	
[dDateTime].[DateYYYYMMDD]	
[dDateTime].[SaleDateTime]	
dDateTime].[SaleTime]	
[dNumeric].[Flag]	
[dNumeric].[LineNumber]	
[dNumeric].[MoneyNumeric]	100
[dNumeric].[RowNumber]	
[dString].[BudgetComment]	
dString].[BuyerComment]	
dString].[ClassTime]	104
[sdDescriptionString].[BudgetDescription]	105
[sdDescriptionString].[CarDescription]	106
[sdDescriptionString].[CategoryDescription]	107
[sdDescriptionString].[ColorName]	
[sdDescriptionString].[Currency]	
[sdDescriptionString].[CurrencySymbol]	
[sdDescriptionString].[DepartmentDescription]	
[sdDescriptionString].[PersonName]	
[sdDescriptionString].[ProjectDescription]	113
[sdDescriptionString].[WorkFlowDescription]	114
[sdlSOString].[ISO2]	115
[sdlSOString].[ISO3]	116
[sdKeyNumeric].[SurrogateKeyInt]	117
[sdKeyString].[InvoiceNchar8]	119
[sdKeyString].[StockCodeNchar36]	120
[sdLocationString].[Address]	121
[sdLocationString].[CountryName]	122
[sdLocationString].[PostCode]	123
[sdLocationString].[RegionName]	124
☐ [sdLocationString].[TownName]	125

131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148

■ localhost,13001

Databases (1)

• PrestigeCarsNormalized

Server Properties

Property	Value
Product	Microsoft SQL Server
Version	15.0.4188.2
Language	English
Platform	NT x64
Edition	Developer Edition (64-bit)
Engine Edition	3 (Enterprise)
Processors	8
OS Version	6.2 (9200)
Physical Memory	10079
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

\sim			
	User	data	bases

Databases (1)

PrestigeCarsNormalized

☐ PrestigeCarsNormalized Database

Database Properties

Property	Value
SQL Server Version	Max
Compatibility Level	Max
Last backup time	05/01/2022
Last log backup time	-
Creation date	Apr 18 2022
Users	4
Database Encryption Enabled	False
Database Encryption Algorithm	None
Database size	80.00 MB
Unallocated space	1.27 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	True
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	2874b3db-577d-40bd-b2de-46ad47bc8af9
Service broker enabled	False
Log reuse wait	LOG_BACKUP
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	Туре	Size	Maxsize	Autogrowth	File Name
PrestigeCarsNormalized	Data	8.00 MB	unlimited	64.00 MB	/var/opt/mssql/data/Prestig eCarsNormalized.mdf
PrestigeCarsNormalized_log	Log	72.00 MB	2048.00 GB	64.00 MB	/var/opt/mssql/log/Prestige- CarsNormalized_log.ldf

■ Tables

Objects

Name
Data.Address
Data.Country
Data.CountryCurrency
Data.Currency
Data.Customer
Data.Make
Data.Model
Data.ModelVariant
Data.PivotTable
Data.Sale
Data.SaleDetail
Data.SalesRegion
Data.Stock
Data.StockColor
Data.StockDetail
Data.Town
DbSecurity.UserAuthorization
Process.WorkFlowStep
Reference.Budget
Reference.Forex
Reference.SalesBudgets
Reference.SalesCategory
Reference.Staff
Reference.StaffHierarchy

■ [Data].[Address]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	88
Created	7:48:51 AM Wednesday, April 20, 2022
Last Modified	1:11:02 PM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK <mark>P</mark> C	AddressId	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
F	CustomerID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
F	TownID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	Address1	[sdLocationString].[Address]	120	NOT NULL		
	Address2	[sdLocationString].[Address]	120	NULL allowed		
	PostCode	[sdLocationString].[PostCode]	18	NULL allowed		
F	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK G	PK_Address	AddressId	True

Foreign Keys

Name	Columns
FK_Address_Customer	CustomerID->[Data].[Customer].[CustomerID]

FK_Address_TownId	TownID->[Data].[Town].[TownId]
FK_Address_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Data].[Address]
[AddressId] [sdKeyNumeric]. [SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[CustomerID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[TownID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[Address1] [sdLocationString].[Address] NOT NULL,
[Address2] [sdLocationString].[Address] NULL,
[PostCode] [sdLocationString].[PostCode] NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Address DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Address DateOf-
LastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
GO
ALTER TABLE [Data].[Address] ADD CONSTRAINT [PK Address] PRIMARY KEY CLUSTERED
([AddressId]) ON [PRIMARY]
ALTER TABLE [Data].[Address] ADD CONSTRAINT [FK Address Customer] FOREIGN KEY
([CustomerID]) REFERENCES [Data].[Customer] ([CustomerID])
ALTER TABLE [Data].[Address] ADD CONSTRAINT [FK Address TownId] FOREIGN KEY ([TownID])
REFERENCES [Data].[Town] ([TownId])
ALTER TABLE [Data].[Address] ADD CONSTRAINT [FK Address UserAuthorization] FOREIGN KEY
([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKev1)
```

Uses

[Data].[Customer]

[Data].[Town]

[DbSecurity].[UserAuthorization]

[dDateTime].[DateYYYYMMDD]

[sdKeyNumeric] [SurrogateKeyInt]

[sdLocationString].[Address]

[sdLocationString].[PostCode]

Data

Used By

[Data].[uvw_SaleByCountry]
[Reference].[uvw_MarketingInformation]
[SourceData].[uvw_SalesText]
[DataTransfer].[tvf_SalesByYear]

Project > localhost,13001 > User databases > PrestigeCarsNormalized > Tables > Data.Address

[Reference].[tvf_YearlySales]

■ [Data].[Country]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	10
Created	9:44:47 AM Wednesday, April 20, 2022
Last Modified	1:02:46 PM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PKP C	CountryID	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL	1 - 1	
FK	SalesRegionID	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL		
.t.	CountryName	[sdLocationString].[Country-Name]	120	NOT NULL		
<u></u>	CountryISO2	[sdlSOString].[ISO2]	4	NOT NULL		
<u></u>	CountryISO3	[sdlSOString].[ISO3]	6	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK G	PK_Country	CountryID	True
	AK_CountryISO2	CountryISO2	True
	AK_CountryISO3	CountryISO3	True
	AK_CountryName	CountryName	True

Check Constraints

Name	On Column	Constraint
CK_Country_CountryISO2	CountryISO2	([CountryISO2] like N'[A-Z][A-Z]')
CK_Country_CountryISO3	CountryISO3	([CountryISO3] like N'[A-Z][A-Z][A-Z]')

Foreign Keys

Name	Columns	
FK_Country_SalesRegion	SalesRegionID->[Data].[SalesRegion].[SalesRegionID]	
FK_Country_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]	

SQL Script

```
CREATE TABLE [Data].[Country]
[CountryID] [sdKeyNumeric]. [SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[SalesRegionID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[CountryName] [sdLocationString].[CountryName] NOT NULL,
[CountryISO2] [sdISOString].[ISO2] NOT NULL,
[CountryISO3] [sdISOString].[ISO3] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Country DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Country DateOf-
LastUpdate] DEFAULT (sysdatetime())
ON [PRIMARY]
ALTER TABLE [Data]. [Country] ADD CONSTRAINT [CK Country CountryISO2] CHECK (([Country-
ISO2] like N'[A-Z][A-Z]'))
ALTER TABLE [Data].[Country] ADD CONSTRAINT [CK Country CountryISO3] CHECK (([Country-
ISO3] like N'[A-Z][A-Z][A-Z]'))
ALTER TABLE [Data]. [Country] ADD CONSTRAINT [PK Country] PRIMARY KEY CLUSTERED
([CountryID]) ON [PRIMARY]
ALTER TABLE [Data].[Country] ADD CONSTRAINT [AK CountryISO2] UNIQUE NONCLUSTERED
([CountryISO2]) ON [PRIMARY]
ALTER TABLE [Data].[Country] ADD CONSTRAINT [AK CountryISO3] UNIQUE NONCLUSTERED
([CountryISO3]) ON [PRIMARY]
ALTER TABLE [Data].[Country] ADD CONSTRAINT [AK CountryName] UNIQUE NONCLUSTERED
([CountryName]) ON [PRIMARY]
ALTER TABLE [Data].[Country] ADD CONSTRAINT [FK_Country SalesRegion] FOREIGN KEY
([SalesRegionID]) REFERENCES [Data].[SalesRegion] ([SalesRegionID])
ALTER TABLE [Data]. [Country] ADD CONSTRAINT [FK Country UserAuthorization] FOREIGN KEY
([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
```

GO

Uses

[Data].[SalesRegion]

[DbSecurity].[UserAuthorization]

[dDateTime].[DateYYYYMMDD]

[sdISOString].[ISO2]

[sdISOString].[ISO3]

[sdKeyNumeric].[SurrogateKeyInt]

[sdLocationString].[CountryName]

Data

Used By

[Data].[CountryCurrency]

[Data].[Make]

[Data].[Town]

[Data].[uvw_InvoiceDetail]

[Data].[uvw_SaleByCountry]

[Reference].[uvw_MarketingInformation]

[SourceData].[uvw_SalesText]

[DataTransfer].[tvf_SalesByYear]

[Reference].[tvf_YearlySales]

■ [Data].[CountryCurrency]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	8
Created	9:02:45 AM Tuesday, April 19, 2022
Last Modified	9:54:30 AM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
PKO FKO	CountryID	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
PKO FKO	CurrencyID	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
F /	CountryISO2	[sdlSOString].[ISO2]	4	NOT NULL	
F /	CurrencyISO3	[sdlSOString].[ISO3]	6	NOT NULL	
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
	DateAdded	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())
	DateOfLastUpdate	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK C	PK_CountryCurrency	CountryID, CurrencyID	True

Check Constraints

Name	On Column	Constraint
CK_CountryCurrency_CountryISO2	CountryISO2	([CountryISO2] like N'[A-Z][A-Z]')
CK_CountryCurrency_CurrencyISO3	CurrencyISO3	([CurrencyISO3] like N'[A-Z][A-Z][A-Z]')

Foreign Keys

Name	Columns
FK_CountryCurrency_Country	CountryID->[Data].[Country].[CountryID]
FK_CountryCurrency_Country_2	CountryISO2->[Data].[Country].[CountryISO2]
FK_CountryCurrency_Currency	CurrencyID->[Data].[Currency].[CurrencyID]
FK_CountryCurrency_Currency_2	CurrencyISO3->[Data].[Currency].[CurrencyISO3]
FK_CountryCurrency_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[User-AuthorizationKey]

SQL Script

```
CREATE TABLE [Data].[CountryCurrency]
[CountryID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[CurrencyID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[CountryISO2] [sdISOString].[ISO2] NOT NULL,
[CurrencyISO3] [sdISOString].[ISO3] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF CountryCurrency Date-
Added] DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF CountryCurrency -
DateOfLastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[CountryCurrency] ADD CONSTRAINT [CK CountryCurrency CountryISO2]
CHECK (([CountryISO2] like N'[A-Z][A-Z]'))
ALTER TABLE [Data].[CountryCurrency] ADD CONSTRAINT [CK CountryCurrency CurrencyISO3]
CHECK (([CurrencyISO3] like N'[A-Z][A-Z][A-Z]'))
ALTER TABLE [Data]. [CountryCurrency] ADD CONSTRAINT [PK CountryCurrency] PRIMARY KEY
CLUSTERED ([CountryID], [CurrencyID]) ON [PRIMARY]
ALTER TABLE [Data].[CountryCurrency] ADD CONSTRAINT [FK CountryCurrency Country]
FOREIGN KEY ([CountryID]) REFERENCES [Data].[Country] ([CountryID])
ALTER TABLE [Data]. [CountryCurrency] ADD CONSTRAINT [FK CountryCurrency Country 2]
FOREIGN KEY ([CountryISO2]) REFERENCES [Data].[Country] ([CountryISO2])
ALTER TABLE [Data].[CountryCurrency] ADD CONSTRAINT [FK CountryCurrency Currency]
FOREIGN KEY ([CurrencyID]) REFERENCES [Data].[Currency] ([CurrencyID])
ALTER TABLE [Data].[CountryCurrency] ADD CONSTRAINT [FK CountryCurrency Currency 2]
FOREIGN KEY ([CurrencyISO3]) REFERENCES [Data].[Currency] ([CurrencyISO3])
ALTER TABLE [Data].[CountryCurrency] ADD CONSTRAINT [FK CountryCurrency User-
Authorization] FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[User-
Authorization] ([UserAuthorizationKey])
GΩ
```

Uses

[Data].[Country]
[Data].[Currency]
[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[sdISOString].[ISO2]
[sdISOString].[ISO3]
[sdKeyNumeric].[SurrogateKeyInt]
Data

Used By

[Data].[uvw_InvoiceDetail]

■ [Data].[Currency]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	3
Created	8:31:43 AM Tuesday, April 19, 2022
Last Modified	9:18:17 AM Tuesday, April 19, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK <mark>P</mark> C	CurrencyID	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL	1 - 1	
т.	CurrencyName	[sdDescription- String].[Currency]	100	NOT NULL		
<u></u>	CurrencyISO3	[sdlSOString].[ISO3]	6	NOT NULL		
	CurrencySymbol	[sdDescription- String].[CurrencySymbol]	2	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK	PK_Currency	CurrencyID	True
	AK_CurrencyISO3	CurrencyISO3	True
	AK_CurrencyName	CurrencyName	True

Check Constraints

Name	On Column	Constraint
CK_CurrencyISO3	CurrencyISO3	([CurrencyISO3] like N'[A-Z][A-Z][A-Z]')

Foreign Keys

Name	Columns
FK_Currency_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorization-Key]

SQL Script

```
CREATE TABLE [Data].[Currency]
[CurrencyID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[CurrencyName] [sdDescriptionString].[Currency] NOT NULL,
[CurrencyISO3] [sdISOString].[ISO3] NOT NULL,
[CurrencySymbol] [sdDescriptionString].[CurrencySymbol] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Currency DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_Currency_DateOf-
LastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
GO
ALTER TABLE [Data].[Currency] ADD CONSTRAINT [CK CurrencyISO3] CHECK (([CurrencyISO3]
like N'[A-Z][A-Z][A-Z]'))
ALTER TABLE [Data].[Currency] ADD CONSTRAINT [PK Currency] PRIMARY KEY CLUSTERED
([CurrencyID]) ON [PRIMARY]
ALTER TABLE [Data].[Currency] ADD CONSTRAINT [AK CurrencyISO3] UNIQUE NONCLUSTERED
([CurrencyISO3]) ON [PRIMARY]
ALTER TABLE [Data].[Currency] ADD CONSTRAINT [AK CurrencyName] UNIQUE NONCLUSTERED
([CurrencyName]) ON [PRIMARY]
ALTER TABLE [Data].[Currency] ADD CONSTRAINT [FK Currency UserAuthorization] FOREIGN
KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
```

Uses

[DbSecurity].[UserAuthorization] [dDateTime].[DateYYYYMMDD] [sdDescriptionString].[Currency] [sdDescriptionString].[CurrencySymbol] [sdISOString].[ISO3]

[sdKeyNumeric].[SurrogateKeyInt]

Data

Used By

[Data].[CountryCurrency] [Data].[uvw_InvoiceDetail]

■ [Data].[Customer]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	88
Created	1:05:56 PM Wednesday, April 20, 2022
Last Modified	1:11:02 PM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK	CustomerID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
	CustomerName	[sdDescriptionString].[Person-Name]	100	NOT NULL		
	IsReseller	[dNumeric].[Flag]	1	NOT NULL		
	IsCreditRisk	[dNumeric].[Flag]	1	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK	PK_Customer	CustomerID	True

Foreign Keys

Name	Columns
FK_Customer_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorization-Key]

SQL Script

```
CREATE TABLE [Data].[Customer]
[CustomerID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[CustomerName] [sdDescriptionString].[PersonName] NOT NULL,
[IsReseller] [dNumeric].[Flag] NOT NULL,
[IsCreditRisk] [dNumeric].[Flag] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Customer DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Customer DateOf-
LastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
GO
ALTER TABLE [Data].[Customer] ADD CONSTRAINT [PK_Customer] PRIMARY KEY CLUSTERED
([CustomerID]) ON [PRIMARY]
ALTER TABLE [Data].[Customer] ADD CONSTRAINT [FK Customer UserAuthorization] FOREIGN
KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
GO
```

Uses

[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[dNumeric].[Flag]
[sdDescriptionString].[PersonName]
[sdKeyNumeric].[SurrogateKeyInt]
Data

Used By

[Data].[Address]
[Data].[Sale]
[Data].[uvw_SaleByCountry]
[Reference].[uvw_MarketingInformation]
[DataTransfer].[tvf_SalesByYear]
[Reference].[tvf_YearlySales]

■ [Data].[Make]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	26
Created	12:58:00 PM Wednesday, April 20, 2022
Last Modified	1:02:17 PM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PKP C	MakeID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
ф	MakeName	[sdDescriptionString].[Car- Description]	40	NOT NULL		
FK	MakeCountryID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK C	PK_Make	MakelD	True
	AK_MakeName	MakeName	True

Foreign Keys

Name	Columns	
FK_Make_Country	MakeCountryID->[Data].[Country].[CountryID]	
FK_Make_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]	

SQL Script

```
CREATE TABLE [Data].[Make]
[MakeID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[MakeName] [sdDescriptionString].[CarDescription] NOT NULL,
[MakeCountryID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Make DateAdded] DEFAULT
(sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Make DateOfLast-
Update] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[Make] ADD CONSTRAINT [PK Make] PRIMARY KEY CLUSTERED ([MakeID]) ON
[PRTMARY]
ALTER TABLE [Data].[Make] ADD CONSTRAINT [AK MakeName] UNIQUE NONCLUSTERED ([Make-
Name]) ON [PRIMARY]
ALTER TABLE [Data].[Make] ADD CONSTRAINT [FK Make Country] FOREIGN KEY ([MakeCountry-
ID]) REFERENCES [Data].[Country] ([CountryID])
ALTER TABLE [Data].[Make] ADD CONSTRAINT [FK Make UserAuthorization] FOREIGN KEY ([User-
AuthorizationKey]) REFERENCES [DbSecurity]. [UserAuthorization] ([UserAuthorizationKey])
GO
```

Uses

[Data].[Country]
[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[sdDescriptionString].[CarDescription]
[sdKeyNumeric].[SurrogateKeyInt]
Data

Used By

[Data].[Model]
[Data].[uvw_SaleByCountry]
[Output].[uvw_StockPrices]
[Reference].[uvw_MarketingCategories]
[SourceData].[uvw_SalesInPounds]
[SourceData].[uvw_SalesText]
[DataTransfer].[tvf_SalesByYear]
[Reference].[tvf_YearlySales]

■ [Data].[Model]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	100
Created	10:02:06 AM Wednesday, April 20, 2022
Last Modified	6:43:33 AM Sunday, April 24, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK <mark>P</mark> C	ModelID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
FK	MakeID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
ı.	ModelName	[sdDescriptionString].[Car- Description]	40	NOT NULL		
	YearFirstProduced	[dDateTime].[DateYYYY]	4	NULL allowed		
	YearLastProduced	[dDateTime].[DateYYYY]	4	NULL allowed		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

K	(ey	Name	Key Columns	Unique
	P _C	PK_Model	ModelID	True
		AK_ModelName	ModelName	True

Check Constraints

Name	On Column	Constraint
CK_Model_YearFirstProduced	YearFirstProduced	([YearFirstProduced] IS NULL OR [YearFirst-Produced]>(1900))

CK_Model_YearLastProduced	YearLastProduced	([YearLastProduced] IS NULL OR [YearLast- Produced]<=(datepart(year,sysdatetime())+(1)))
		1 Toduced] \ - (datepart(year, systiatetime()) \ (1)))

Foreign Keys

Name	Columns
FK_Model_Make	MakeID->[Data].[Make].[MakeID]
FK_Model_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Data].[Model]
[ModelID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[MakeID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[ModelName] [sdDescriptionString].[CarDescription] NOT NULL,
[YearFirstProduced] [dDateTime].[DateYYYY] NULL,
[YearLastProduced] [dDateTime].[DateYYYY] NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Model DateAdded] DEFAULT
(sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Model DateOfLast-
Update] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[Model] ADD CONSTRAINT [CK Model YearFirstProduced] CHECK (([Year-
FirstProduced] IS NULL OR [YearFirstProduced] > (1900)))
ALTER TABLE [Data].[Model] ADD CONSTRAINT [CK_Model_YearLastProduced] CHECK (([YearLast-
Produced] IS NULL OR [YearLastProduced] <= (datepart (year, sysdatetime())+(1))))
ALTER TABLE [Data].[Model] ADD CONSTRAINT [PK Model] PRIMARY KEY CLUSTERED ([ModelID])
ON [PRIMARY]
ALTER TABLE [Data].[Model] ADD CONSTRAINT [AK ModelName] UNIQUE NONCLUSTERED ([Model-
Name]) ON [PRIMARY]
ALTER TABLE [Data].[Model] ADD CONSTRAINT [FK Model Make] FOREIGN KEY ([MakeID])
REFERENCES [Data].[Make] ([MakeID])
ALTER TABLE [Data].[Model] ADD CONSTRAINT [FK Model UserAuthorization] FOREIGN KEY
([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
```

Uses

[Data].[Make] [DbSecurity].[UserAuthorization] [dDateTime].[DateYYYY] [dDateTime].[DateYYYYMMDD] [sdDescriptionString].[CarDescription] [sdKeyNumeric].[SurrogateKeyInt] Data

Used By

[Data].[ModelVariant]
[Data].[StockDetail]
[Data].[uvw_SaleByCountry]
[Output].[uvw_StockPrices]
[SourceData].[uvw_SalesInPounds]
[SourceData].[uvw_SalesText]
[DataTransfer].[tvf_SalesByYear]
[Reference].[tvf_YearlySales]

■ [Data].[ModelVariant]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	5
Created	8:57:25 AM Wednesday, April 20, 2022
Last Modified	10:07:20 AM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK	ModelVariantID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
FK	ModelID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	ModelVariantName	[sdDescriptionString].[Car- Description]	40	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK G	PK_ModelVariant	ModelVariantID	True

Foreign Keys

Name	Columns
FK_ModelVariant_Model	ModelID->[Data].[Model].[ModelID]
FK_ModelVariant_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[User-AuthorizationKey]

SQL Script

```
CREATE TABLE [Data].[ModelVariant]
[ModelVariantID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[ModelID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[ModelVariantName] [sdDescriptionString].[CarDescription] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF ModelVariant DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF ModelVariant Date-
OfLastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[ModelVariant] ADD CONSTRAINT [PK ModelVariant] PRIMARY KEY
CLUSTERED ([ModelVariantID]) ON [PRIMARY]
ALTER TABLE [Data].[ModelVariant] ADD CONSTRAINT [FK ModelVariant Model] FOREIGN KEY
([ModelID]) REFERENCES [Data].[Model] ([ModelID])
ALTER TABLE [Data].[ModelVariant] ADD CONSTRAINT [FK ModelVariant UserAuthorization]
FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
GO
```

Uses

[Data].[Model]
[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[sdDescriptionString].[CarDescription]
[sdKeyNumeric].[SurrogateKeyInt]
Data

■ [Data].[PivotTable]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	10
Created	9:36:34 AM Wednesday, April 20, 2022
Last Modified	9:36:34 AM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
PKC FK	ColorName	[sdDescriptionString].[ColorName]	100	NOT NULL	
	2015	[dNumeric].[MoneyNumeric]	9	NOT NULL	
	2016	[dNumeric].[MoneyNumeric]	9	NOT NULL	
	2017	[dNumeric].[MoneyNumeric]	9	NOT NULL	
	2018	[dNumeric].[MoneyNumeric]	9	NOT NULL	
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
	DateAdded	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())
	DateOfLastUpdate	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PKP C	PK_PivotTable	ColorName	True

Check Constraints

Name	On Column	Constraint
CK_PivotTable_2015	2015	([2015]>=(0))
CK_PivotTable_2016	2016	([2016]>=(0))
CK_PivotTable_2017	2017	([2017]>=(0))
CK_PivotTable_2018	2018	([2018]>=(0))

Foreign Keys

Name	Columns	
FK_PivotTable_StockColor	ColorName->[Data].[StockColor].[Color]	
FK_PivotTable_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorization-Key]	

SQL Script

```
CREATE TABLE [Data].[PivotTable]
[ColorName] [sdDescriptionString].[ColorName] NOT NULL,
[2015] [dNumeric].[MoneyNumeric] NOT NULL,
[2016] [dNumeric].[MoneyNumeric] NOT NULL,
[2017] [dNumeric].[MoneyNumeric] NOT NULL,
[2018] [dNumeric].[MoneyNumeric] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF PivotTable DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF PivotTable DateOf-
LastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[PivotTable] ADD CONSTRAINT [CK PivotTable 2015] CHECK
(([2015] >= (0)))
ALTER TABLE [Data].[PivotTable] ADD CONSTRAINT [CK PivotTable 2016] CHECK
(([2016] >= (0)))
ALTER TABLE [Data].[PivotTable] ADD CONSTRAINT [CK PivotTable 2017] CHECK
(([2017] >= (0)))
ALTER TABLE [Data].[PivotTable] ADD CONSTRAINT [CK PivotTable 2018] CHECK
(([2018] >= (0)))
GO
ALTER TABLE [Data].[PivotTable] ADD CONSTRAINT [PK PivotTable] PRIMARY KEY CLUSTERED
([ColorName]) ON [PRIMARY]
ALTER TABLE [Data].[PivotTable] ADD CONSTRAINT [FK PivotTable StockColor] FOREIGN KEY
([ColorName]) REFERENCES [Data].[StockColor] ([Color])
ALTER TABLE [Data].[PivotTable] ADD CONSTRAINT [FK PivotTable UserAuthorization]
FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity]. [UserAuthorization] ([User-
AuthorizationKey])
```

Uses

[Data].[StockColor]
[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[dNumeric].[MoneyNumeric]

[sdDescriptionString].[ColorName] [sdKeyNumeric].[SurrogateKeyInt] Data

Ⅲ [Data].[Sale]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	321
Created	9:51:54 AM Tuesday, April 19, 2022
Last Modified	1:11:02 PM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PKP	SaleID	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL	1 - 1	
FK	CustomerID	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL		
<u></u>	InvoiceNumber	[sdKeyString].[InvoiceNchar8]	16	NOT NULL		
	SaleDate	[dDateTime].[SaleDateTime]	6	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PKP C	PK_Sale	SaleID	True
	AK_InvoiceNumber	InvoiceNumber	True

Check Constraints

Name	On Column	Constraint
CK_Sale_InvoiceNumber	InvoiceNumber	([InvoiceNumber] like N'[A-Z][A-Z][A-Z][A-Z][A-Z][0-9][0-9]')

Foreign Keys

Name	Columns
FK_Sale_Customer	CustomerID->[Data].[Customer].[CustomerID]
FK_Sale_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Data].[Sale]
[SaleID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[CustomerID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[InvoiceNumber] [sdKeyString].[InvoiceNchar8] NOT NULL,
[SaleDate] [dDateTime].[SaleDateTime] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Sale DateAdded] DEFAULT
(sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Sale DateOfLast-
Update] DEFAULT (sysdatetime())
ON [PRIMARY]
ALTER TABLE [Data].[Sale] ADD CONSTRAINT [CK Sale InvoiceNumber] CHECK (([Invoice-
Number] like N'[A-Z][A-Z][A-Z][A-Z][0-9][0-9][0-9]'))
ALTER TABLE [Data]. [Sale] ADD CONSTRAINT [PK Sale] PRIMARY KEY CLUSTERED ([SaleID]) ON
[PRIMARY]
ALTER TABLE [Data].[Sale] ADD CONSTRAINT [AK InvoiceNumber] UNIQUE NONCLUSTERED
([InvoiceNumber]) ON [PRIMARY]
ALTER TABLE [Data].[Sale] ADD CONSTRAINT [FK Sale Customer] FOREIGN KEY ([CustomerID])
REFERENCES [Data].[Customer] ([CustomerID])
ALTER TABLE [Data].[Sale] ADD CONSTRAINT [FK Sale UserAuthorization] FOREIGN KEY ([User-
AuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([UserAuthorizationKey])
GO
```

Uses

[Data].[Customer]
[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[dDateTime].[SaleDateTime]
[sdKeyNumeric].[SurrogateKeyInt]
[sdKeyString].[InvoiceNchar8]
Data

Used By

[Data].[SaleDetail] [Data].[uvw_InvoiceDetail] [Data].[uvw_SaleByCountry] [SourceData].[uvw_SalesText] [DataTransfer].[tvf_SalesByYear] [Reference].[tvf_YearlySales]

■ [Data].[SaleDetail]

Properties

Property	Value
Row Count (~)	348
Created	7:22:12 AM Wednesday, April 20, 2022
Last Modified	1:19:26 PM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK P C	SaleDetailID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
F	SaleID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
F	StockID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	LineItemNumber	[dNumeric].[LineNumber]	2	NOT NULL		
⊞	SalePrice	[dNumeric].[MoneyNumeric]	9	NOT NULL		
■	LineItemDiscount	[dNumeric].[MoneyNumeric]	9	NOT NULL		((0))
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK	PK_SaleDetailID	SaleDetailID	True

Check Constraints

Name	On Column	Constraint
CK_SaleDetail_LineItemDiscount	LineItemDiscount	([LineItemDiscount]>=(0))
CK_SaleDetail_LineItemNumber	LineItemNumber	([LineItemNumber]>(0))

CK_SaleDetail_SalePrice	SalePrice	([SalePrice]>=(0))
-------------------------	-----------	--------------------

Foreign Keys

Name	Columns
FK_SaleDetail_Sale	SaleID->[Data].[Sale].[SaleID]
FK_SaleDetail_Stock	StockID->[Data].[Stock].[StockID]
FK_SaleDetail_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorization-Key]

```
CREATE TABLE [Data].[SaleDetail]
[SaleDetailID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[SaleID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[StockID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[LineItemNumber] [dNumeric].[LineNumber] NOT NULL,
[SalePrice] [dNumeric].[MoneyNumeric] NOT NULL,
[LineItemDiscount] [dNumeric].[MoneyNumeric] NOT NULL CONSTRAINT [DF SaleDetail Line-
ItemDiscount] DEFAULT ((0)),
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF SaleDetail DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF SaleDetail DateOf-
LastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[SaleDetail] ADD CONSTRAINT [CK SaleDetail LineItemDiscount] CHECK
(([LineItemDiscount]>=(0)))
ALTER TABLE [Data].[SaleDetail] ADD CONSTRAINT [CK SaleDetail LineItemNumber] CHECK
(([LineItemNumber]>(0)))
ALTER TABLE [Data].[SaleDetail] ADD CONSTRAINT [CK SaleDetail SalePrice] CHECK (([Sale-
Price1>=(0)))
ALTER TABLE [Data].[SaleDetail] ADD CONSTRAINT [PK SaleDetailID] PRIMARY KEY CLUSTERED
([SaleDetailID]) ON [PRIMARY]
ALTER TABLE [Data].[SaleDetail] ADD CONSTRAINT [FK SaleDetail Sale] FOREIGN KEY ([Sale-
ID]) REFERENCES [Data].[Sale] ([SaleID])
ALTER TABLE [Data].[SaleDetail] ADD CONSTRAINT [FK SaleDetail Stock] FOREIGN KEY
([StockID]) REFERENCES [Data].[Stock] ([StockID])
ALTER TABLE [Data].[SaleDetail] ADD CONSTRAINT [FK SaleDetail UserAuthorization]
FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
GO
```

[Data].[Sale]

[Data].[Stock]

[DbSecurity].[UserAuthorization]

[dDateTime].[DateYYYYMMDD]

[dNumeric].[LineNumber]

[dNumeric].[MoneyNumeric]

[sdKeyNumeric].[SurrogateKeyInt]

Data

Used By

[Data].[uvw_SaleByCountry] [SourceData].[uvw_SalesText] [DataTransfer].[tvf_SalesByYear] [Reference].[tvf_YearlySales]

■ [Data].[SalesRegion]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	3
Created	9:07:56 PM Monday, April 18, 2022
Last Modified	9:54:49 AM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
P <mark>/P</mark> G	SalesRegionID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
ı.	SalesRegion	[sdLocationString].[Region-Name]	40	NOT NULL		
F	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

K	еу 💮	Name	Key Columns	Unique
PK		PK_SalesRegion	SalesRegionID	True
		AK_SalesRegion	SalesRegion	True

Foreign Keys

Name	Columns
FK_SalesRegion_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorization-Key]

```
CREATE TABLE [Data].[SalesRegion]
```

```
[SalesRegionID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[SalesRegion] [sdLocationString].[RegionName] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF SalesRegion DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF SalesRegion Date-
OfLastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[SalesRegion] ADD CONSTRAINT [PK SalesRegion] PRIMARY KEY CLUSTERED
([SalesRegionID]) ON [PRIMARY]
ALTER TABLE [Data].[SalesRegion] ADD CONSTRAINT [AK SalesRegion] UNIQUE NONCLUSTERED
([SalesRegion]) ON [PRIMARY]
ALTER TABLE [Data].[SalesRegion] ADD CONSTRAINT [FK SalesRegion UserAuthorization]
FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
GO
```

[DbSecurity].[UserAuthorization] [dDateTime].[DateYYYYMMDD] [sdKeyNumeric].[SurrogateKeyInt] [sdLocationString].[RegionName] Data

Used By

[Data].[Country]

■ [Data].[Stock]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	391
Created	1:14:13 PM Wednesday, April 20, 2022
Last Modified	1:19:26 PM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PKP C	StockID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
#	StockCode	[sdKeyString].[StockCode- Nchar36]	72	NOT NULL		
	DateBought	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		
	TimeBought	[dDateTime].[SaleTime]	3	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PKP C	PK_Stock	StockID	True
	AK_StockCode	StockCode	True

Foreign Keys

Name	Columns
FK_Stock_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Data].[Stock]
[StockID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[StockCode] [sdKeyString].[StockCodeNchar36] NOT NULL,
[DateBought] [dDateTime].[DateYYYYMMDD] NOT NULL,
[TimeBought] [dDateTime].[SaleTime] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Stock DateAdded] DEFAULT
(sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Stock DateOfLast-
Update] DEFAULT (sysdatetime())
ON [PRIMARY]
GO
ALTER TABLE [Data].[Stock] ADD CONSTRAINT [PK Stock] PRIMARY KEY CLUSTERED ([StockID])
ALTER TABLE [Data].[Stock] ADD CONSTRAINT [AK StockCode] UNIQUE NONCLUSTERED ([Stock-
Code]) ON [PRIMARY]
ALTER TABLE [Data].[Stock] ADD CONSTRAINT [FK Stock UserAuthorization] FOREIGN KEY
([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
```

Uses

[DbSecurity].[UserAuthorization] [dDateTime].[DateYYYYMMDD] [dDateTime].[SaleTime] [sdKeyNumeric].[SurrogateKeyInt] [sdKeyString].[StockCodeNchar36] Data

Used By

[Data].[SaleDetail]
[Data].[StockDetail]
[SourceData].[uvw_SalesText]
[DataTransfer].[tvf_SalesByYear]

■ [Data].[StockColor]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	10
Created	6:39:58 AM Tuesday, April 19, 2022
Last Modified	9:39:13 AM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
P <mark>/P</mark> G	ColorID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
ı.	Color	[sdDescriptionString].[Color-Name]	100	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PKP C	PK_StockColor	ColorID	True
	AK_Color	Color	True

Foreign Keys

Name	Columns
FK_StockColor_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorization-Key]

```
CREATE TABLE [Data].[StockColor]
```

```
[ColorID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[Color] [sdDescriptionString].[ColorName] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF StockColor DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF StockColor DateOf-
LastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[StockColor] ADD CONSTRAINT [PK StockColor] PRIMARY KEY CLUSTERED
([ColorID]) ON [PRIMARY]
ALTER TABLE [Data].[StockColor] ADD CONSTRAINT [AK Color] UNIQUE NONCLUSTERED
([Color]) ON [PRIMARY]
ALTER TABLE [Data].[StockColor] ADD CONSTRAINT [FK StockColor UserAuthorization]
FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
GO
```

[DbSecurity].[UserAuthorization] [dDateTime].[DateYYYYMMDD] [sdDescriptionString].[ColorName] [sdKeyNumeric].[SurrogateKeyInt] Data

Used By

[Data].[PivotTable]
[Data].[StockDetail]
[Data].[uvw_SaleByCountry]

■ [Data].[StockDetail]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	391
Created	6:54:56 AM Tuesday, April 19, 2022
Last Modified	6:43:33 AM Sunday, April 24, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
PKO FKO	StockID	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
FK	ColorID	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
FK	ModelID	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
	IsRHD	[dNumeric].[Flag]	1	NOT NULL	
	Cost	[dNumeric].[MoneyNumeric]	9	NOT NULL	
	RepairCost	[dNumeric].[MoneyNumeric]	9	NOT NULL	((0))
	PartCost	[dNumeric].[MoneyNumeric]	9	NOT NULL	((0))
	TransportInCost	[dNumeric].[MoneyNumeric]	9	NOT NULL	((0))
	BuyerComment	[dString].[BuyerComment]	1000	NOT NULL	(N'No Comment')
F	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
	DateAdded	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())
	DateOfLastUpdate	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK	PK_StockDetail	StockID	True

Check Constraints

Name	On Column	Constraint
CK_Cost	Cost	([Cost]>=(0))
CK_PartCost	PartCost	([PartCost]>=(0))
CK_RepairCost	RepairCost	([RepairCost]>=(0))
CK_TransportInCost	TransportInCost	([TransportInCost]>=(0))

Foreign Keys

Name	Columns
FK_StockDetail_Model	ModelID->[Data].[Model].[ModelID]
FK_StockDetail_Stock	StockID->[Data].[Stock].[StockID]
FK_StockDetail_StockColor	ColorID->[Data].[StockColor].[ColorID]
FK_StockDetail_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorization-Key]

```
CREATE TABLE [Data].[StockDetail]
[StockID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[ColorID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[ModelID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[IsRHD] [dNumeric].[Flag] NOT NULL,
[Cost] [dNumeric].[MoneyNumeric] NOT NULL,
[RepairCost] [dNumeric].[MoneyNumeric] NOT NULL CONSTRAINT [DF StockDetail RepairCost]
DEFAULT ((0)),
[PartCost] [dNumeric].[MoneyNumeric] NOT NULL CONSTRAINT [DF StockDetail PartCost]
DEFAULT ((0)),
[TransportInCost] [dNumeric].[MoneyNumeric] NOT NULL CONSTRAINT [DF StockDetail -
TransportInCost] DEFAULT ((0)),
[BuyerComment] [dString].[BuyerComment] NOT NULL CONSTRAINT [DF StockDetail Buyer-
Comment] DEFAULT (N'No Comment'),
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF StockDetail DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF StockDetail Date-
OfLastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [CK Cost] CHECK (([Cost]>=(0)))
ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [CK PartCost] CHECK (([PartCost]>=(0)))
ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [CK RepairCost] CHECK (([Repair-
Cost] >= (0))
ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [CK TransportInCost] CHECK (([Transport-
InCost] >= (0))
```

```
ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [PK_StockDetail] PRIMARY KEY CLUSTERED ([StockID]) ON [PRIMARY]

GO

ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [FK_StockDetail_Model] FOREIGN KEY ([ModelID]) REFERENCES [Data].[Model] ([ModelID])

GO

ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [FK_StockDetail_Stock] FOREIGN KEY ([StockID]) REFERENCES [Data].[Stock] ([StockID])

GO

ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [FK_StockDetail_StockColor] FOREIGN KEY ([ColorID]) REFERENCES [Data].[StockColor] ([ColorID])

GO

ALTER TABLE [Data].[StockDetail] ADD CONSTRAINT [FK_StockDetail_UserAuthorization] FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-AuthorizationKey])

GO
```

[Data].[Model]

[Data].[Stock]

[Data].[StockColor]

[DbSecurity].[UserAuthorization]

[dDateTime].[DateYYYYMMDD]

[dNumeric].[Flag]

[dNumeric].[MoneyNumeric]

[dString].[BuyerComment]

[sdKeyNumeric]. [SurrogateKeyInt]

Data

Used By

[Data].[uvw_SaleByCountry]

[Output].[uvw_StockPrices]

[SourceData].[uvw_SalesInPounds]

[SourceData].[uvw_SalesText]

[DataTransfer].[tvf_SalesByYear]

[Reference].[tvf_YearlySales]

■ [Data].[Town]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	22
Created	7:43:41 AM Wednesday, April 20, 2022
Last Modified	9:54:30 AM Wednesday, April 20, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK	TownId	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
FK	Countryld	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	Town	[sdLocationString].[TownName]	100	NOT NULL		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK	PK_Town	TownId	True

Foreign Keys

Name	Columns
FK_Town_Country	CountryId->[Data].[Country].[CountryID]
FK_Town_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

CREATE TABLE [Data].[Town]

```
[TownId] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[CountryId] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[Town] [sdLocationString].[TownName] NOT NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_Town_DateAdded] DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_Town_DateOfLast-Update] DEFAULT (sysdatetime())
) ON [PRIMARY]

GO

ALTER TABLE [Data].[Town] ADD CONSTRAINT [PK_Town] PRIMARY KEY CLUSTERED ([TownId]) ON [PRIMARY]

GO

ALTER TABLE [Data].[Town] ADD CONSTRAINT [FK_Town_Country] FOREIGN KEY ([CountryId]) REFERENCES [Data].[Country] ([CountryID])

GO

ALTER TABLE [Data].[Town] ADD CONSTRAINT [FK_Town_UserAuthorization] FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([UserAuthorizationKey])
```

[Data].[Country]
[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[sdKeyNumeric].[SurrogateKeyInt]
[sdLocationString].[TownName]
Data

Used By

[Data].[Address]
[Data].[uvw_SaleByCountry]
[Reference].[uvw_MarketingInformation]
[SourceData].[uvw_SalesText]
[DataTransfer].[tvf_SalesByYear]
[Reference].[tvf_YearlySales]

[DbSecurity].[UserAuthorization]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	5
Created	7:29:17 PM Monday, April 18, 2022
Last Modified	10:04:38 AM Sunday, April 24, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabili ty	Identity	Default
₽ <mark>≯</mark> C	UserAuthorizationKey	[sdKeyNumeric].[Surrogate-KeyInt]	4	NOT NULL	1 - 1	
	GroupMemberLastName	[sdDescriptionString].[Person-Name]	100	NOT NULL		
	GroupMemberFirstName	[sdDescriptionString].[Person- Name]	100	NOT NULL		
	IndividualProject	[sdDescriptionString].[Project- Description]	120	NOT NULL		(N'Project 2.5: Prestige Cars Normaliza tion Project')
	ClassTime	[dString].[ClassTime]	10	NOT NULL		(N'09:15')
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PKC	PK_UserAuthorization	UserAuthorizationKey	True

```
CREATE TABLE [DbSecurity].[UserAuthorization]

(
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),

[GroupMemberLastName] [sdDescriptionString].[PersonName] NOT NULL,

[GroupMemberFirstName] [sdDescriptionString].[PersonName] NOT NULL,
```

```
[IndividualProject] [sdDescriptionString].[ProjectDescription] NOT NULL CONSTRAINT [DF_-UserAuthorization_IndividualProject] DEFAULT (N'Project 2.5: Prestige Cars Normalization Project'),

[ClassTime] [dString].[ClassTime] NOT NULL CONSTRAINT [DF_UserAuthorization_ClassTime] DEFAULT (N'09:15'),

[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_UserAuthorization_Date-Added] DEFAULT (sysdatetime())

) ON [PRIMARY]

GO

ALTER TABLE [DbSecurity].[UserAuthorization] ADD CONSTRAINT [PK_UserAuthorization] PRIMARY KEY CLUSTERED ([UserAuthorizationKey]) ON [PRIMARY]

GO
```

[dDateTime].[DateYYYYMMDD]

[dString].[ClassTime]

[sdDescriptionString].[PersonName]

[sdDescriptionString].[ProjectDescription]

[sdKeyNumeric].[SurrogateKeyInt]

DbSecurity

Used By

[Data].[Address]

[Data].[Country]

[Data].[CountryCurrency]

[Data].[Currency]

[Data].[Customer]

[Data].[Make]

[Data].[Model]

[Data].[ModelVariant]

[Data].[PivotTable]

[Data].[Sale]

[Data].[Oalo]

[Data].[SaleDetail]

[Data].[SalesRegion]

[Data].[Stock]

[Data].[StockColor]

[Data].[StockDetail]

[Data].[Town]

[Process].[WorkFlowStep]

[Reference].[Budget]

[Reference].[Forex]

[Reference].[SalesBudgets]

[Reference].[SalesCategory]

[Reference].[Staff]

[Reference].[StaffHierarchy]

■ [Process].[WorkFlowStep]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	34
Created	10:04:38 AM Sunday, April 24, 2022
Last Modified	10:04:38 AM Sunday, April 24, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabil ity	Identity	Default
PKP C	WorkFlowStepKey	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL	1 - 1	
	WorkFlowDescription	[sdDescriptionString].[Work-FlowDescription]	1000	NOT NULL		
	WorkFlowStepTableRowCount	[dNumeric].[RowNumber]	4	NOT NULL		((0))
	ClassTime	[dString].[ClassTime]	10	NOT NULL		(N'09:1 5')
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdat etime())
FK	UserAuthorizationKey	[sdKeyNumeric].[Surrogate- KeyInt]	4	NOT NULL		

Indexes

Key	Name	Key Columns	Unique
PKC	PK_WorkFlowStep	WorkFlowStepKey	True

Check Constraints

Name	On Column	Constraint
CK_WorkFlowStep_WorkFlowStepTableRowCount	WorkFlowStepTableRow- Count	([WorkFlowStepTableRow- Count]>=(0))

Foreign Keys

Name	Columns
------	---------

FK_WorkFlowStep_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[User-AuthorizationKey]
-----------------------------------	--

SQL Script

```
CREATE TABLE [Process].[WorkFlowStep]
[WorkFlowStepKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[WorkFlowDescription] [sdDescriptionString].[WorkFlowDescription] NOT NULL,
[WorkFlowStepTableRowCount] [dNumeric].[RowNumber] NOT NULL CONSTRAINT [DF WorkFlow-
Step WorkFlowStepTableRowCount] DEFAULT ((0)),
[ClassTime] [dString].[ClassTime] NOT NULL CONSTRAINT [DF WorkFlowStep ClassTime]
DEFAULT (N'09:15'),
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF WorkFlowStep DateAdded]
DEFAULT (sysdatetime()),
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL
) ON [PRIMARY]
GO
ALTER TABLE [Process]. [WorkFlowStep] ADD CONSTRAINT [CK WorkFlowStep WorkFlowStepTable-
RowCount] CHECK (([WorkFlowStepTableRowCount]>=(0)))
ALTER TABLE [Process].[WorkFlowStep] ADD CONSTRAINT [PK WorkFlowStep] PRIMARY KEY
CLUSTERED ([WorkFlowStepKey]) ON [PRIMARY]
ALTER TABLE [Process].[WorkFlowStep] ADD CONSTRAINT [FK WorkFlowStep UserAuthorization]
FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
GO
```

Uses

[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[dNumeric].[RowNumber]
[dString].[ClassTime]
[sdDescriptionString].[WorkFlowDescription]
[sdKeyNumeric].[SurrogateKeyInt]
Process

III [Reference].[Budget]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	235
Created	3:01:51 PM Saturday, April 23, 2022
Last Modified	3:02:12 PM Saturday, April 23, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK C	BudgetKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
	BudgetValue	[dNumeric].[MoneyNumeric]	9	NULL allowed		
	Year	[dDateTime].[DateYYYY]	4	NULL allowed		
	Month	[dDateTime].[DateMM]	1	NULL allowed		
	BudgetDetail	[sdDescriptionString].[Budget- Description]	100	NULL allowed		
	BudgetElement	[sdDescriptionString].[Budget- Description]	100	NULL allowed		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PKC	PK_Budget	BudgetKey	True

Foreign Keys

Name	Columns
FK_Budget_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Reference].[Budget]
[BudgetKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[BudgetValue] [dNumeric].[MoneyNumeric] NULL,
[Year] [dDateTime].[DateYYYY] NULL,
[Month] [dDateTime].[DateMM] NULL,
[BudgetDetail] [sdDescriptionString].[BudgetDescription] NULL,
[BudgetElement] [sdDescriptionString].[BudgetDescription] NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Budget DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Budget DateOfLast-
Update] DEFAULT (sysdatetime())
ON [PRIMARY]
ALTER TABLE [Reference].[Budget] ADD CONSTRAINT [PK Budget] PRIMARY KEY CLUSTERED
([BudgetKey]) ON [PRIMARY]
ALTER TABLE [Reference].[Budget] ADD CONSTRAINT [FK Budget UserAuthorization] FOREIGN
KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
GO
```

Uses

[DbSecurity].[UserAuthorization]
[dDateTime].[DateMM]
[dDateTime].[DateYYYY]
[dDateTime].[DateYYYYMMDD]
[dNumeric].[MoneyNumeric]
[sdDescriptionString].[BudgetDescription]
[sdKeyNumeric].[SurrogateKeyInt]
Reference

■ [Reference].[Forex]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Неар	True
Row Count (~)	1461
Created	2:58:37 PM Saturday, April 23, 2022
Last Modified	2:58:42 PM Saturday, April 23, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
	ExchangeDate	[dDateTime].[DateYYYYMMDD]	3	NULL allowed	
	ISOCurrency	[sdlSOString].[ISO3]	6	NULL allowed	
	ExchangeRate	[dNumeric].[MoneyNumeric]	9	NULL allowed	
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
	DateAdded	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdatetim e())
	DateOfLastUpdate	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdatetim e())

Foreign Keys

Name	Columns
FK_Forex_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]

```
CREATE TABLE [Reference].[Forex]

(
[ExchangeDate] [dDateTime].[DateYYYYMMDD] NULL,

[ISOCurrency] [sdISOString].[ISO3] NULL,

[ExchangeRate] [dNumeric].[MoneyNumeric] NULL,

[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,

[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_Forex_DateAdded] DEFAULT (sysdatetime()),

[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_Forex_DateOfLast-
```

```
Update] DEFAULT (sysdatetime())
) ON [PRIMARY]
GO
ALTER TABLE [Reference].[Forex] ADD CONSTRAINT [FK_Forex_UserAuthorization] FOREIGN KEY
([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-AuthorizationKey])
GO
```

[DbSecurity].[UserAuthorization] [dDateTime].[DateYYYYMMDD] [dNumeric].[MoneyNumeric] [sdISOString].[ISO3] [sdKeyNumeric].[SurrogateKeyInt] Reference

■ [Reference].[SalesBudgets]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Неар	True
Row Count (~)	3
Created	3:15:51 PM Saturday, April 23, 2022
Last Modified	3:15:51 PM Saturday, April 23, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
	BudgetArea	[sdLocationString].[RegionName]	40	NULL allowed	
	BudgetAmount	[dNumeric].[MoneyNumeric]	9	NULL allowed	
	BudgetYear	[dDateTime].[DateYYYY]	4	NULL allowed	
	DateUpdated	[dDateTime].[DateTimeYYYYMMDD-HH:MM:SS]	6	NULL allowed	
	Comments	[dString].[BudgetComment]	1000	NOT NULL	
	BudgetMonth	[dDateTime].[DateMM]	1	NULL allowed	
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
	DateAdded	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())
	DateOfLastUpdate	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())

Foreign Keys

Name	Columns
FK_SalesBudgets_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[User-AuthorizationKey]

```
CREATE TABLE [Reference].[SalesBudgets]
```

```
[BudgetArea] [sdLocationString].[RegionName] NULL,
[BudgetAmount] [dNumeric].[MoneyNumeric] NULL,
[BudgetYear] [dDateTime].[DateYYYY] NULL,
[DateUpdated] [dDateTime].[DateTimeYYYYMMDD-HH:MM:SS] NULL,
[Comments] [dString].[BudgetComment] NOT NULL,
[BudgetMonth] [dDateTime].[DateMM] NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF SalesBudgets DateAdded]
DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF SalesBudgets Date-
OfLastUpdate] DEFAULT (sysdatetime())
ON [PRIMARY]
GO
ALTER TABLE [Reference].[SalesBudgets] ADD CONSTRAINT [FK SalesBudgets User-
Authorization] FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[User-
Authorization] ([UserAuthorizationKey])
GO
```

[DbSecurity].[UserAuthorization]
[dDateTime].[DateMM]
[dDateTime].[DateTimeYYYYMMDD-HH:MM:SS]
[dDateTime].[DateYYYY]
[dDateTime].[DateYYYYMMDD]
[dNumeric].[MoneyNumeric]
[dString].[BudgetComment]
[sdKeyNumeric].[SurrogateKeyInt]
[sdLocationString].[RegionName]
Reference

■ [Reference].[SalesCategory]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Неар	True
Row Count (~)	6
Created	3:18:07 PM Saturday, April 23, 2022
Last Modified	3:18:31 PM Saturday, April 23, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
	LowerThreshold	[dNumeric].[MoneyNumeric]	9	NULL allowed	
	UpperThreshold	[dNumeric].[MoneyNumeric]	9	NULL allowed	
	CategoryDescription	[sdDescriptionString].[Category-Description]	100	NULL allowed	
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKeyInt]	4	NOT NULL	
	DateAdded	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())
	DateOfLastUpdate	[dDateTime].[DateYYYYMMDD]	3	NOT NULL	(sysdateti me())

Foreign Keys

Name	Columns
FK_SalesCategory_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[User-AuthorizationKey]

```
CREATE TABLE [Reference].[SalesCategory]

(
[LowerThreshold] [dNumeric].[MoneyNumeric] NULL,

[UpperThreshold] [dNumeric].[MoneyNumeric] NULL,

[CategoryDescription] [sdDescriptionString].[CategoryDescription] NULL,

[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,

[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_SalesCategory_DateAdded]

DEFAULT (sysdatetime()),
```

```
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF_SalesCategory_-DateOfLastUpdate] DEFAULT (sysdatetime())

ON [PRIMARY]

GO

ALTER TABLE [Reference].[SalesCategory] ADD CONSTRAINT [FK_SalesCategory_User-Authorization] FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[User-Authorization] ([UserAuthorizationKey])

GO
```

[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[dNumeric].[MoneyNumeric]
[sdDescriptionString].[CategoryDescription]
[sdKeyNumeric].[SurrogateKeyInt]
Reference

■ [Reference].[Staff]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	13
Created	3:23:30 PM Saturday, April 23, 2022
Last Modified	3:23:51 PM Saturday, April 23, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PKP C	StaffID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
	StaffName	[sdDescriptionString].[Person-Name]	100	NULL allowed		
	ManagerID	[sdKeyNumeric].[SurrogateKey-Int]	4	NULL allowed		
	Department	[sdDescriptionString].[Category-Description]	100	NULL allowed		
F	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK	PK_Staff	StaffID	True

Foreign Keys

Name	Columns
FK_Staff_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Reference].[Staff]
[StaffID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[StaffName] [sdDescriptionString].[PersonName] NULL,
[ManagerID] [sdKeyNumeric].[SurrogateKeyInt] NULL,
[Department] [sdDescriptionString].[CategoryDescription] NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Staff DateAdded] DEFAULT
(sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF Staff DateOfLast-
Update] DEFAULT (sysdatetime())
) ON [PRIMARY]
GO
ALTER TABLE [Reference].[Staff] ADD CONSTRAINT [PK Staff] PRIMARY KEY CLUSTERED
([StaffID]) ON [PRIMARY]
ALTER TABLE [Reference].[Staff] ADD CONSTRAINT [FK Staff UserAuthorization] FOREIGN KEY
([UserAuthorizationKey]) REFERENCES [DbSecurity].[UserAuthorization] ([User-
AuthorizationKey])
GO
```

Uses

[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[sdDescriptionString].[CategoryDescription]
[sdDescriptionString].[PersonName]
[sdKeyNumeric].[SurrogateKeyInt]
Reference

■ [Reference].[StaffHierarchy]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	13
Created	3:30:04 PM Saturday, April 23, 2022
Last Modified	3:30:26 PM Saturday, April 23, 2022

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
	HierarchyReference	hierarchyid	892	NULL allowed		
P <mark>/</mark> C	StaffID	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL	1 - 1	
	StaffName	[sdDescriptionString].[Person-Name]	100	NULL allowed		
	ManagerID	[sdKeyNumeric].[SurrogateKey-Int]	4	NULL allowed		
	Department	[sdDescription- String].[DepartmentDescription]	100	NULL allowed		
FK	UserAuthorizationKey	[sdKeyNumeric].[SurrogateKey-Int]	4	NOT NULL		
	DateAdded	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())
	DateOfLastUpdate	[dDateTime].[Date- YYYYMMDD]	3	NOT NULL		(sysdateti me())

Indexes

Key	Name	Key Columns	Unique
PK G	PK_StaffHierarchy	StaffID	True

Foreign Keys

Name	Columns
FK_StaffHierarchy_UserAuthorization	UserAuthorizationKey->[DbSecurity].[UserAuthorization].[User-AuthorizationKey]

SQL Script

```
CREATE TABLE [Reference].[StaffHierarchy]
[HierarchyReference] [sys].[hierarchyid] NULL,
[StaffID] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[StaffName] [sdDescriptionString].[PersonName] NULL,
[ManagerID] [sdKeyNumeric].[SurrogateKeyInt] NULL,
[Department] [sdDescriptionString].[DepartmentDescription] NULL,
[UserAuthorizationKey] [sdKeyNumeric].[SurrogateKeyInt] NOT NULL,
[DateAdded] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF StaffHierarchy Date-
Added] DEFAULT (sysdatetime()),
[DateOfLastUpdate] [dDateTime].[DateYYYYMMDD] NOT NULL CONSTRAINT [DF StaffHierarchy -
DateOfLastUpdate] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Reference].[StaffHierarchy] ADD CONSTRAINT [PK StaffHierarchy] PRIMARY KEY
CLUSTERED ([StaffID]) ON [PRIMARY]
ALTER TABLE [Reference].[StaffHierarchy] ADD CONSTRAINT [FK StaffHierarchy User-
Authorization] FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DbSecurity].[User-
Authorization] ([UserAuthorizationKey])
```

Uses

[DbSecurity].[UserAuthorization]
[dDateTime].[DateYYYYMMDD]
[sdDescriptionString].[DepartmentDescription]
[sdDescriptionString].[PersonName]
[sdKeyNumeric].[SurrogateKeyInt]
Reference

■ Views

Objects

Name
Data.uvw_InvoiceDetail
Data.uvw_SaleByCountry
Output.uvw_StockPrices
Reference.uvw_MarketingCategories
Reference.uvw_MarketingInformation
SourceData.uvw_SalesInPounds
SourceData.uvw_SalesText
Utils.uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint

[Data].[uvw_InvoiceDetail]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	10:16:03 AM Tuesday, April 19, 2022
Last Modified	5:49:31 AM Sunday, April 24, 2022

Columns

Name	Data Type	Max Length (Bytes)
InvoiceNumber	[sdKeyString].[InvoiceNchar8]	16
SaleID	[sdKeyNumeric].[SurrogateKeyInt]	4
CustomerCountry	[sdLocationString].[CountryName]	120
CurrencyOfTransaction	[sdDescriptionString].[Currency]	100
UserAuthorizationKey	[sdKeyNumeric].[SurrogateKeyInt]	4
DateAdded	[dDateTime].[DateYYYYMMDD]	3
DateOfLastUpdate	[dDateTime].[DateYYYYMMDD]	3

```
CREATE VIEW [Data].[uvw InvoiceDetail]
AS
SELECT S.InvoiceNumber,
     S.SaleID,
      CO.CountryName AS CustomerCountry,
      CU.CurrencyName AS CurrencyOfTransaction,
      S.UserAuthorizationKey,
     S.DateAdded,
      S.DateOfLastUpdate
FROM Data.CountryCurrency AS CC
  INNER JOIN Data. Country AS CO
      ON CO.CountryID = CC.CountryID
   INNER JOIN Data.Currency AS CU
      ON CU.CurrencyID = CC.CurrencyID
   INNER JOIN Data. Sale AS S
       ON LEFT(S.InvoiceNumber, 3) = CC.CurrencyISO3
          AND RIGHT (LEFT (S.InvoiceNumber, 5), 2) = CC.CountryISO2;
GO
```

[Data].[Country]

[Data].[CountryCurrency]

[Data].[Currency]

[Data].[Sale]

[dDateTime].[DateYYYYMMDD]

[sdDescriptionString].[Currency]

[sdKeyNumeric].[SurrogateKeyInt]

[sdKeyString].[InvoiceNchar8]

[sdLocationString].[CountryName]

Data

[Data].[uvw_SaleByCountry]

Properties

Property	Value	
Collation	SQL_Latin1_General_CP1_CI_AS	
ANSI Nulls On	True	
Quoted Identifier On	True	
Created	1:37:57 PM Wednesday, April 20, 2022	
Last Modified	1:37:57 PM Wednesday, April 20, 2022	

Columns

Name	Data Type	Max Length (Bytes)
CountryName	[sdLocationString].[CountryName]	120
MakeName	[sdDescriptionString].[CarDescription]	40
ModelName	[sdDescriptionString].[CarDescription]	40
Cost	[dNumeric].[MoneyNumeric]	9
RepairCost	[dNumeric].[MoneyNumeric]	9
PartCost	[dNumeric].[MoneyNumeric]	9
TransportInCost	[dNumeric].[MoneyNumeric]	9
Color	[sdDescriptionString].[ColorName]	100
SalePrice	[dNumeric].[MoneyNumeric]	9
LineItemDiscount	[dNumeric].[MoneyNumeric]	9
InvoiceNumber	[sdKeyString].[InvoiceNchar8]	16
SaleDate	[dDateTime].[SaleDateTime]	6
CustomerName	[sdDescriptionString].[PersonName]	100
SaleDetailID	[sdKeyNumeric].[SurrogateKeyInt]	4

```
CREATE VIEW [Data].[uvw_SaleByCountry]

AS

SELECT CO.CountryName,

MK.MakeName,

MD.ModelName,

STOD.Cost,

STOD.RepairCost,

STOD.PartCost,

STOD.TransportInCost,

SC.Color,
```

```
SAD.SalePrice,
      SAD.LineItemDiscount,
      S.InvoiceNumber,
      S.SaleDate,
      CU.CustomerName,
      SAD.SaleDetailID
FROM Data.StockColor AS SC
   INNER JOIN Data.StockDetail AS STOD
       ON STOD.ColorID = SC.ColorID
   INNER JOIN Data. Model AS MD
       ON MD.ModelID = STOD.ModelID
   INNER JOIN Data.Make AS MK
       ON MK.MakeID = MD.MakeID
   INNER JOIN Data. SaleDetail AS SAD
      ON SAD.StockID = STOD.StockID
   INNER JOIN Data. Sale AS S
       ON S.SaleID = SAD.SaleID
   INNER JOIN Data.Customer AS CU
       ON CU.CustomerID = S.CustomerID
   INNER JOIN Data. [Address] AS A
       ON A.CustomerID = CU.CustomerID
   INNER JOIN Data. Town AS T
       ON T.TownId = A.TownID
   INNER JOIN Data. Country AS CO
       ON CO.CountryID = T.CountryId;
GO
```

[Data].[Address] [Data].[Country] [Data].[Customer] [Data].[Make] [Data].[Model] [Data].[Sale] [Data].[SaleDetail] [Data].[StockColor] [Data].[StockDetail] [Data].[Town] [dDateTime].[SaleDateTime] [dNumeric].[MoneyNumeric] [sdDescriptionString].[CarDescription] [sdDescriptionString].[ColorName] [sdDescriptionString].[PersonName] [sdKeyNumeric].[SurrogateKeyInt] [sdKeyString].[InvoiceNchar8] [sdLocationString].[CountryName] Data

[Output].[uvw_StockPrices]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	8:11:02 AM Sunday, April 24, 2022
Last Modified	8:11:02 AM Sunday, April 24, 2022

Columns

Name	Data Type	Max Length (Bytes)
MakeName	[sdDescriptionString].[CarDescription]	40
ModelName	[sdDescriptionString].[CarDescription]	40
Cost	[dNumeric].[MoneyNumeric]	9
UserAuthorizationKey	int	4
DateAdded	date	3
DateOfLastUpdate	date	3

SQL Script

```
CREATE VIEW [Output].[uvw_StockPrices]

AS

SELECT MA.MakeName,

MO.ModelName,

SD.Cost,

3 AS UserAuthorizationKey,

CAST(SYSDATETIME() AS DATE) AS DateAdded,

CAST(SYSDATETIME() AS DATE) AS DateOfLastUpdate

FROM [Data].StockDetail AS SD

INNER JOIN [Data].Model AS MO

ON SD.ModelID = MO.ModelID

INNER JOIN [Data].Make AS MA

ON MO.MakeID = MA.MakeID;

GO
```

Uses

[Data].[Make] [Data].[Model] [Data].[StockDetail] [dNumeric].[MoneyNumeric] [sdDescriptionString].[CarDescription] Output

[Reference].[uvw_MarketingCategories]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	8:26:52 AM Sunday, April 24, 2022
Last Modified	8:26:52 AM Sunday, April 24, 2022

Columns

Name	Data Type	Max Length (Bytes)
MakeName	[sdDescriptionString].[CarDescription]	40
MarketingType	varchar(24)	24
UserAuthorizationKey	int	4
DateAdded	date	3
DateOfLastUpdate	date	3

SQL Script

```
CREATE VIEW [Reference].[uvw MarketingCategories]
AS
SELECT MakeName,
      CASE
          WHEN MakeName IN ( 'Ferrari', 'Lamborghini', 'Alfa Romeo', 'Bugatti',
'Lagonda', 'McLaren', 'Morgan',
                              'Noble', 'Triumph'
                          ) THEN
               'Sports'
          WHEN MakeName IN ( 'Citroen', 'Delahaye', 'Trabant', 'Peugeot', 'Reliant',
'Riley', 'Cadillac' ) THEN
          WHEN MakeName = 'Austin' THEN
          WHEN MakeName IN ( 'Porsche', 'Aston Martin', 'Mercedes', 'BMW' ) THEN
               'Sports, Tourer'
          WHEN MakeName IN ( 'Delorean', 'Jaguar' ) THEN
              'Sports, Family'
           WHEN MakeName IN ( 'Rolls Royce', 'Maybach' ) THEN
              'Chauffer, Prestige'
           WHEN MakeName = 'Bentley' THEN
              'Tourer, Chauffer, Prestige'
```

Project > localhost,13001 > User databases > PrestigeCarsNormalized > Views > Reference.uvw_Marketing-Categories

```
"Unknown"

END AS MarketingType,
3 AS UserAuthorizationKey,
CAST(SYSDATETIME() AS DATE) AS DateAdded,
CAST(SYSDATETIME() AS DATE) AS DateOfLastUpdate

FROM [Data].Make;
GO
```

Uses

[Data].[Make] [sdDescriptionString].[CarDescription] Reference

[Reference].[uvw_MarketingInformation]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	8:43:10 AM Sunday, April 24, 2022
Last Modified	8:43:10 AM Sunday, April 24, 2022

Columns

Name	Data Type	Max Length (Bytes)
CUST	[sdDescriptionString].[PersonName]	100
Country	[sdISOString].[ISO2]	4
SpendCapacity	varchar(7)	7
UserAuthorizationKey	int	4
DateAdded	date	3
DateOfLastUpdate	date	3

SQL Script

```
CREATE VIEW [Reference].[uvw MarketingInformation]
SELECT customer.[CustomerName] AS CUST,
      country.[CountryISO2] AS Country,
          WHEN customer.[CustomerName] IN ( 'Birmingham Executive Prestige Vehicles',
'M. Pierre Dubois',
                                             'SuperSport S.A.R.L.', 'Stan Collywobble',
                                            'Liverpool Executive Prestige Vehicles',
'Mrs. Ivana Telford',
                                            'Kieran O''Harris', 'Prestissimo!',
'Ronaldo Bianco', 'Clubbing Cars',
                                             'Beltway Prestige Driving', 'Bling Bling
S.A.', 'Francoise LeBrun',
                                             'Alex McWhirter'
                                           ) THEN
              'None'
          WHEN customer. [CustomerName] IN ( 'Snazzy Roadsters', 'Sondra Horowitz',
                                            'London Executive Prestige Vehicles',
'Alexei Tolstoi', 'Jason B. Wight',
                                            'King Leer Cars', 'Laurent Saint Yves',
'Alicia Almodovar',
```

```
'Autos Sportivos', 'Pierre Blanc', 'Mme
Anne Duport',
                                             'Jean-Yves Truffaut', 'ImpressThe-
Neighbours.Com', 'Andrea Tarbuck',
                                             'YO! Speed!', 'Flash Voitures', 'Mary
Blackhouse', 'El Sport',
                                             'Jayden Jones'
                                           ) THEN
               'Some'
          WHEN customer.[CustomerName] IN ( 'Magic Motors', 'WunderKar', 'Casseroles
Chromes', 'Eat My Exhaust Ltd',
                                             'Glittering Prize Cars Ltd', 'Theo
Kowalski', 'Posh Vehicles Ltd',
                                             'Glitz', 'Peter Smith', 'Khader El
Ghannam', 'Andy Cheshire',
                                             'Jimmy McFiddler'
                                           ) THEN
               'Lots'
           WHEN customer.[CustomerName] IN ( 'Wonderland Wheels', 'La Bagnole de Luxe',
'Convertible Dreams',
                                             'Peter McLuckie', 'Silver HubCaps',
'Matterhorn Motors',
                                             'Honest Pete Motors', 'Vive La Vitesse',
'Prestige Imports',
                                             'Diplomatic Cars', 'Executive Motor
Delight', 'Sport.Car',
                                             'Screamin'' Wheels Corp', 'Capots
Reluisants S.A.', 'Stefano DiLonghi',
                                             'Antonio Maura', 'Stefan Van Helsing',
'Mr. Evan Telford',
                                             'Ralph Obermann', 'Wladimir Lacroix',
'Raimondo Delattre', 'Boris Spry',
                                             'Bling Motors', 'Smooth Rocking Chrome',
'Stephany Rousso',
                                             'My Shiny Sports Car Ltd.', 'Paul Blasio',
'Maurice Dujardin',
                                             'Leslie Whittington', 'Mike Beeton',
'Melissa Bertrand', 'Bravissima!',
                                             'Expensive Shine', 'Steve Docherty',
'Rodolph Legler', 'Pete Spring',
                                             'Jacques Mitterand', 'Francois Chirac'
                                           ) THEN
               'Immense'
           WHEN customer.[CustomerName] IN ( 'Le Luxe en Motion' )
               AND country. [CountryISO2] IN ( 'CH' ) THEN
               'Lots'
           WHEN customer.[CustomerName] IN ( 'Le Luxe en Motion' )
               AND country. [CountryISO2] IN ( 'FR' ) THEN
           WHEN customer.[CustomerName] IN ( 'Screamin'' Wheels' )
               AND country.[CountryISO2] IN ( 'GB' ) THEN
           WHEN customer.[CustomerName] IN ( 'Screamin'' Wheels' )
               AND country. [CountryISO2] IN ( 'US' ) THEN
               'Immense'
           ELSE
              'Unknown'
```

Project > localhost,13001 > User databases > PrestigeCarsNormalized > Views > Reference.uvw_Marketing-Information

```
END AS SpendCapacity,

4 AS UserAuthorizationKey,

CAST(SYSDATETIME() AS DATE) AS DateAdded,

CAST(SYSDATETIME() AS DATE) AS DateOfLastUpdate

FROM [Data].[Customer] AS customer

INNER JOIN [Data].[Address] AS addy

ON customer.CustomerID = addy.CustomerID

INNER JOIN [Data].[Town] AS town

ON addy.TownID = town.TownId

INNER JOIN [Data].[Country] AS country

ON town.CountryId = country.CountryID;
```

Uses

[Data].[Address]
[Data].[Country]
[Data].[Customer]
[Data].[Town]
[sdDescriptionString].[PersonName]
[sdISOString].[ISO2]
Reference

[SourceData].[uvw_SalesInPounds]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	8:55:59 AM Sunday, April 24, 2022
Last Modified	8:56:49 AM Sunday, April 24, 2022

Columns

Name	Data Type	Max Length (Bytes)
MakeName	[sdDescriptionString].[CarDescription]	40
ModelName	[sdDescriptionString].[CarDescription]	40
Cost	varchar(42)	42
UserAuthorizationKey	int	4
DateAdded	date	3
DateOfLastUpdate	date	3

SQL Script

```
CREATE VIEW [SourceData].[uvw_SalesInPounds]

AS

SELECT MA.MakeName,

MO.ModelName,

CONCAT('£', SD.Cost) AS Cost,

5 AS UserAuthorizationKey,

CAST(SYSDATETIME() AS DATE) AS DateAdded,

CAST(SYSDATETIME() AS DATE) AS DateOfLastUpdate

FROM Data.StockDetail AS SD

INNER JOIN Data.Model AS MO

ON MO.ModelID = SD.ModelID

INNER JOIN Data.Make AS MA

ON MA.MakeID = MO.MakeID;

GO
```

Uses

[Data].[Make]

Author: timos

[Data].[Model]
[Data].[StockDetail]
[sdDescriptionString].[CarDescription]
SourceData

[SourceData].[uvw_SalesText]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	9:10:58 AM Sunday, April 24, 2022
Last Modified	9:10:58 AM Sunday, April 24, 2022

Columns

Name	Data Type	Max Length (Bytes)
CountryName	[sdLocationString].[CountryName]	120
MakeName	[sdDescriptionString].[CarDescription]	40
Cost	nvarchar(17)	34
SalePrice	nvarchar(17)	34
UserAuthorizationKey	int	4
DateAdded	date	3
DateOfLastUpdate	date	3

SQL Script

```
CREATE VIEW [SourceData].[uvw_SalesText]
SELECT CU.CountryName,
      MA.MakeName,
      CAST (STOD.Cost AS NVARCHAR (17)) AS Cost,
      CAST(SD.SalePrice AS NVARCHAR(17)) AS SalePrice,
      5 AS UserAuthorizationKey,
      CAST(SYSDATETIME() AS DATE) AS DateAdded,
      CAST(SYSDATETIME() AS DATE) AS DateOfLastUpdate
FROM Data.SaleDetail AS SD
   INNER JOIN Data. Stock AS ST
      ON ST.StockID = SD.StockID
   INNER JOIN Data. StockDetail AS STOD
      ON STOD.StockID = ST.StockID
   INNER JOIN Data.Model AS MO
     ON MO.ModelID = STOD.ModelID
   INNER JOIN Data.Make AS MA
       ON MA.MakeID = MO.MakeID
   INNER JOIN Data. Sale AS SA
```

```
ON SA.SaleID = SD.SaleID

INNER JOIN Data.Address AS A

ON A.CustomerID = SA.CustomerID

INNER JOIN Data.Town AS T

ON T.TownId = A.TownID

INNER JOIN Data.Country AS CU

ON CU.CountryID = T.CountryId;

GO
```

Uses

[Data].[Address]

[Data].[Country]

[Data].[Make]

[Data].[Model]

[Data].[Sale]

[Data].[SaleDetail]

[Data].[Stock]

[Data].[StockDetail]

[Data].[Town]

[sdDescriptionString].[CarDescription]

[sdLocationString].[CountryName]

SourceData

[Utils].[uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	8:48:09 AM Sunday, April 24, 2022
Last Modified	8:48:09 AM Sunday, April 24, 2022

Columns

Name	Data Type	Max Length (Bytes)
FullyQualifiedTableName	nvarchar(257)	514
SchemaName	[sys].[sysname]	256
TableName	[sys].[sysname]	256
ColumnName	[sys].[sysname]	256
OrdinalPosition	int	4
FullyQualifiedDomainName	nvarchar(257)	514
DomainName	[sys].[sysname]	256
DataType	nvarchar(128)	256
IsNullable	varchar(3)	3
DefaultName	[sys].[sysname]	256
DefaultNameDefinition	nvarchar(4000)	8000
CheckConstraintRuleName	[sys].[sysname]	256
CheckConstraintRuleNameDefinition	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 ColumnName,
    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 CheckConstraintRuleName,
      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
```

Uses

Utils

Project > localhost,13001 > User databases > PrestigeCarsNormalized > Programmability > Functions > Table-valued Functions

■ Table-valued Functions

Objects

Name

DataTransfer.tvf_SalesByYear

Reference.tvf_YearlySales

[DataTransfer].[tvf_SalesByYear]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@TargetYear	int	4

SQL Script

```
CREATE FUNCTION [DataTransfer].[tvf_SalesByYear]
   @TargetYear INT
RETURNS TABLE
RETURN
   SELECT MK.[MakeName],
          MD.[ModelName],
           CUST.[CustomerName],
          C.[CountryName],
          STKD.[Cost],
          STKD.[RepairCost] AS [RepairsCost],
          STKD.[PartCost] AS [PartsCost],
          STKD.[TransportInCost],
          SD.[SalePrice],
          SL.[SaleDate],
          2 AS UserAuthorizationKey,
          CAST (SYSDATETIME () AS DATE) AS DateAdded,
          CAST(SYSDATETIME() AS DATE) AS DateOfLastUpdate
   FROM [Data].[SaleDetail] AS SD
       INNER JOIN [Data].[Stock] AS STK
           ON SD.StockID = STK.StockID
        INNER JOIN [Data].[StockDetail] AS STKD
           ON STK.StockID = STKD.StockID
        INNER JOIN [Data].[Model] AS MD
           ON STKD.ModelID = MD.ModelID
        INNER JOIN [Data].[Make] AS MK
          ON MD.MakeID = MK.MakeID
        INNER JOIN [Data].[Sale] AS SL
```

```
ON SD.SaleID = SL.SaleID

INNER JOIN [Data].[Customer] AS CUST

ON SL.CustomerID = CUST.CustomerID

INNER JOIN [Data].[Address] AS ADDR

ON ADDR.CustomerID = CUST.CustomerID

INNER JOIN [Data].[Town] AS T

ON T.TownId = ADDR.TownID

INNER JOIN Data.Country AS C

ON C.CountryID = T.CountryId

WHERE YEAR(SL.SaleDate) = @TargetYear

);

GO
```

Uses

[Data].[Address]

[Data].[Country]

[Data].[Customer]

[Data].[Make]

[Data].[Model]

[Data].[Sale]

[Data].[SaleDetail]

[Data].[Stock]

[Data].[StockDetail]

[Data].[Town]

[dDateTime].[SaleDateTime]

[dNumeric].[MoneyNumeric]

[sdDescriptionString].[CarDescription]

[sdDescriptionString].[PersonName]

[sdLocationString].[CountryName]

DataTransfer

Reference].[tvf_YearlySales]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@TargetYear	int	4

SQL Script

```
CREATE FUNCTION [Reference].[tvf_YearlySales]
   @TargetYear INT
RETURNS TABLE
AS
RETURN
   SELECT make.[MakeName],
          model.[ModelName],
           customer.[CustomerName],
          country.[CountryName],
          stkdetail.[Cost],
           stkdetail.[RepairCost] AS [RepairsCost],
          stkdetail.[PartCost] AS [PartsCost],
          stkdetail.[TransportInCost],
          saledetail.[SalePrice],
           sale.[SaleDate],
           4 AS UserAuthorizationKey,
          CAST (SYSDATETIME () AS DATE) AS DateAdded,
          CAST(SYSDATETIME() AS DATE) AS DateOfLastUpdate
   FROM [Data].[Sale] AS sale
       INNER JOIN [Data].[SaleDetail] AS saledetail
           ON sale.SaleID = saledetail.SaleID
        INNER JOIN [Data].[StockDetail] AS stkdetail
           ON saledetail.StockID = stkdetail.StockID
        INNER JOIN [Data].[Model] AS model
           ON stkdetail.ModelID = model.ModelID
        INNER JOIN [Data].[Make] AS make
           ON model.MakeID = make.MakeID
        INNER JOIN [Data].[Customer] AS customer
```

```
ON sale.CustomerID = customer.CustomerID

INNER JOIN [Data].[Address] AS addy

ON customer.CustomerID = addy.CustomerID

INNER JOIN [Data].[Town] AS town

ON addy.TownID = town.TownId

INNER JOIN [Data].[Country] AS country

ON town.CountryId = country.CountryID

WHERE YEAR(sale.SaleDate) = @TargetYear

);

GO
```

Uses

[Data].[Address]

[Data].[Country]

[Data].[Customer]

[Data].[Make]

[Data].[Model]

[Data].[Sale]

[Data].[SaleDetail]

[Data].[StockDetail]

[Data].[Town]

[dDateTime].[SaleDateTime]

[dNumeric].[MoneyNumeric]

[sdDescriptionString].[CarDescription]

[sdDescriptionString].[PersonName]

[sdLocationString].[CountryName]

Reference

iii User-Defined Data Types

Objects

Name
dDateTime.DateMM
dDateTime.DateTimeYYYYMMDD-HH:MM:SS
dDateTime.DateYYYY
dDateTime.DateYYYYMMDD
dDateTime.SaleDateTime
dDateTime.SaleTime
dNumeric.Flag
dNumeric.LineNumber
dNumeric.MoneyNumeric
dNumeric.RowNumber
dString.BudgetComment
dString.BuyerComment
dString.ClassTime
sdDescriptionString.BudgetDescription
sdDescriptionString.CarDescription
sdDescriptionString.CategoryDescription
sdDescriptionString.ColorName
sdDescriptionString.Currency
sdDescriptionString.CurrencySymbol
sdDescriptionString.DepartmentDescription
sdDescriptionString.PersonName
sdDescriptionString.ProjectDescription
sdDescriptionString.WorkFlowDescription
sdISOString.ISO2
sdISOString.ISO3
sdKeyNumeric.SurrogateKeyInt
sdKeyString.InvoiceNchar8
sdKeyString.StockCodeNchar36
sdLocationString.Address
sdLocationString.CountryName
sdLocationString.PostCode
sdLocationString.RegionName
sdLocationString.TownName

[dDateTime].[DateMM]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	tinyint
Length	1

SQL Script

CREATE TYPE [dDateTime].[DateMM] FROM tinyint NULL
GO

Uses

dDateTime

Used By

[Reference].[Budget] [Reference].[SalesBudgets]

[dDateTime].[DateTimeYYYYMMDD-HH:MM:SS]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	datetime2
Length	6

SQL Script

CREATE TYPE [dDateTime].[DateTimeYYYYMMDD-HH:MM:SS] FROM datetime2 (0) NOT NULL GO

Uses

dDateTime

Used By

[Reference].[SalesBudgets]

[dDateTime].[DateYYYY]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	int
Length	4

SQL Script

CREATE TYPE [dDateTime].[DateYYYY] FROM int NULL
GO

Uses

dDateTime

Used By

[Data].[Model]

[Reference].[Budget] [Reference].[SalesBudgets]

Author: timos

[dDateTime].[DateYYYYMMDD]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	date
Length	3

SQL Script

CREATE TYPE [dDateTime].[DateYYYYMMDD] FROM date NULL
GO

Uses

dDateTime

Used By

[Data].[Address]

[Data].[Country]

[Data].[CountryCurrency]

[Data].[Currency]

[Data].[Customer]

[Data].[Make]

[Data].[Model]

[Data].[ModelVariant]

[Data].[PivotTable]

[Data].[Sale]

[Data].[SaleDetail]

[Data].[SalesRegion]

[Data].[Stock]

[Data].[StockColor]

[Data].[StockDetail]

[Data].[Town]

[DbSecurity].[UserAuthorization]

[Process].[WorkFlowStep]

[Reference].[Budget]

[Reference].[Forex]

[Reference].[SalesBudgets]

[Reference].[SalesCategory]

[Reference].[Staff]

[Reference].[StaffHierarchy]

[Data].[uvw_InvoiceDetail]

[dDateTime].[SaleDateTime]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	datetime2
Length	6

SQL Script

CREATE TYPE [dDateTime].[SaleDateTime] FROM datetime2 (0) NOT NULL
GO

Uses

dDateTime

Used By

[Data].[Sale]
[Data].[uvw_SaleByCountry]
[DataTransfer].[tvf_SalesByYear]
[Reference].[tvf_YearlySales]

[dDateTime].[SaleTime]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	time
Length	3

SQL Script

CREATE TYPE [dDateTime].[SaleTime] FROM time (0) NOT NULL
GO

Uses

dDateTime

Used By

[Data].[Stock]

iii [dNumeric].[Flag]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	bit
Length	1

SQL Script

CREATE TYPE [dNumeric].[Flag] FROM bit NOT NULL
GO

Uses

dNumeric

Used By

[Data].[Customer] [Data].[StockDetail]

[dNumeric].[LineNumber]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	smallint
Length	2

SQL Script

CREATE TYPE [dNumeric].[LineNumber] FROM smallint NOT NULL
GO

Uses

dNumeric

Used By

[Data].[SaleDetail]

[dNumeric].[MoneyNumeric]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	numeric
Length	9

SQL Script

CREATE TYPE [dNumeric].[MoneyNumeric] FROM numeric (17, 2) NOT NULL
GO

Uses

dNumeric

Used By

[Data].[PivotTable]

[Data].[SaleDetail]

[Data].[StockDetail]

[Reference].[Budget]

[Reference].[Forex]

[Reference].[SalesBudgets]

[Reference].[SalesCategory]

[Data].[uvw_SaleByCountry]

[Output].[uvw_StockPrices]

[DataTransfer].[tvf_SalesByYear]

[Reference].[tvf_YearlySales]

[dNumeric].[RowNumber]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	int
Length	4

SQL Script

CREATE TYPE [dNumeric].[RowNumber] FROM int NOT NULL
GO

Uses

dNumeric

Used By

[Process].[WorkFlowStep]

[dString].[BudgetComment]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	500

SQL Script

CREATE TYPE [dString].[BudgetComment] FROM nvarchar (500) NOT NULL
GO

Uses

dString

Used By

[Reference].[SalesBudgets]

[dString].[BuyerComment]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	500

SQL Script

CREATE TYPE [dString].[BuyerComment] FROM nvarchar (500) NOT NULL
GO

Uses

dString

Used By

[Data].[StockDetail]

[dString].[ClassTime]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nchar
Length	5

SQL Script

CREATE TYPE [dString].[ClassTime] FROM nchar (5) NOT NULL
GO

Uses

dString

Used By

[DbSecurity].[UserAuthorization] [Process].[WorkFlowStep]

[sdDescriptionString].[BudgetDescription]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [sdDescriptionString].[BudgetDescription] FROM nvarchar (50) NOT NULL GO

Uses

sdDescriptionString

Used By

[Reference].[Budget]

[sdDescriptionString].[CarDescription]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	20

SQL Script

CREATE TYPE [sdDescriptionString].[CarDescription] FROM nvarchar (20) NULL GO

Uses

sdDescriptionString

Used By

[Data].[Make]

[Data].[Model]

[Data].[ModelVariant]

[Data].[uvw_SaleByCountry]

[Output].[uvw_StockPrices]

[Reference].[uvw_MarketingCategories]

[SourceData].[uvw_SalesInPounds]

[SourceData].[uvw_SalesText]

[DataTransfer].[tvf_SalesByYear]

[Reference].[tvf_YearlySales]

[sdDescriptionString].[CategoryDescription]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [sdDescriptionString].[CategoryDescription] FROM nvarchar (50) NOT NULL GO

Uses

sdDescriptionString

Used By

[Reference].[SalesCategory] [Reference].[Staff]

[sdDescriptionString].[ColorName]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [sdDescriptionString].[ColorName] FROM nvarchar (50) NOT NULL
GO

Uses

sdDescriptionString

Used By

[Data].[PivotTable]
[Data].[StockColor]
[Data].[uvw_SaleByCountry]

[sdDescriptionString].[Currency]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [sdDescriptionString].[Currency] FROM nvarchar (50) NOT NULL
GO

Uses

sdDescriptionString

Used By

[Data].[Currency]

[Data].[uvw_InvoiceDetail]

[sdDescriptionString].[CurrencySymbol]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nchar
Length	1

SQL Script

CREATE TYPE [sdDescriptionString].[CurrencySymbol] FROM nchar (1) NOT NULL
GO

Uses

sdDescriptionString

Used By

[Data].[Currency]

[sdDescriptionString].[DepartmentDescription]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [sdDescriptionString].[DepartmentDescription] FROM nvarchar (50) NOT NULL GO

Uses

sdDescriptionString

Used By

[Reference].[StaffHierarchy]

[sdDescriptionString].[PersonName]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [sdDescriptionString].[PersonName] FROM nvarchar (50) NOT NULL
GO

Uses

sdDescriptionString

Used By

[Data].[Customer]

[DbSecurity].[UserAuthorization]

[Reference].[Staff]

[Reference].[StaffHierarchy]

[Data].[uvw_SaleByCountry]

[Reference].[uvw_MarketingInformation]

[DataTransfer].[tvf_SalesByYear]

[Reference].[tvf_YearlySales]

[sdDescriptionString].[ProjectDescription]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	60

SQL Script

CREATE TYPE [sdDescriptionString].[ProjectDescription] FROM nvarchar (60) NOT NULL GO

Uses

sdDescriptionString

Used By

[DbSecurity].[UserAuthorization]

[sdDescriptionString].[WorkFlowDescription]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	500

SQL Script

CREATE TYPE [sdDescriptionString].[WorkFlowDescription] FROM nvarchar (500) NOT NULL GO

Uses

sdDescriptionString

Used By

[Process].[WorkFlowStep]

[sdlSOString].[ISO2]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nchar
Length	2

SQL Script

CREATE TYPE [sdISOString].[ISO2] FROM nchar (2) NOT NULL
GO

Uses

sdISOString

Used By

[Data].[Country]

[Data].[CountryCurrency]

[Reference].[uvw_MarketingInformation]

[sdlSOString].[ISO3]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nchar
Length	3

SQL Script

CREATE TYPE [sdISOString].[ISO3] FROM nchar (3) NOT NULL
GO

Uses

sdISOString

Used By

[Data].[Country]
[Data].[CountryCurrency]
[Data].[Currency]
[Reference].[Forex]

[sdKeyNumeric].[SurrogateKeyInt]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	int
Length	4

SQL Script

```
CREATE TYPE [sdKeyNumeric].[SurrogateKeyInt] FROM int NOT NULL
GO
```

Uses

sdKeyNumeric

Used By

[Data].[Address]

[Data].[Country]

[Data].[CountryCurrency]

[Data].[Currency]

[Data].[Customer]

[Data].[Make]

[Data].[Model]

[Data].[ModelVariant]

[Data].[PivotTable]

[Data].[Sale]

[Data].[SaleDetail]

[Data].[SalesRegion]

[Data].[Stock]

[Data].[StockColor]

[Data].[StockDetail]

[Data].[Town]

[DbSecurity].[UserAuthorization]

[Process].[WorkFlowStep]

[Reference].[Budget]

[Reference].[Forex]

[Reference].[SalesBudgets]

[Reference].[SalesCategory]

[Reference].[Staff]

[Reference].[StaffHierarchy]

[Data].[uvw_InvoiceDetail]

 $\label{localhost} Project > localhost, 13001 > User \ databases > Prestige Cars Normalized > Programmability > Types > User-Defined \ Data \ Types > sdKeyNumeric. Surrogate KeyInt$

[Data].[uvw_SaleByCountry]

[sdKeyString].[InvoiceNchar8]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nchar
Length	8

SQL Script

CREATE TYPE [sdKeyString].[InvoiceNchar8] FROM nchar (8) NOT NULL
GO

Uses

sdKeyString

Used By

[Data].[Sale]

[Data].[uvw_InvoiceDetail]

[Data].[uvw_SaleByCountry]

ille [sdKeyString].[StockCodeNchar36]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nchar
Length	36

SQL Script

CREATE TYPE [sdKeyString].[StockCodeNchar36] FROM nchar (36) NOT NULL
GO

Uses

sdKeyString

Used By

[Data].[Stock]

[sdLocationString].[Address]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	60

SQL Script

CREATE TYPE [sdLocationString].[Address] FROM nvarchar (60) NULL
GO

Uses

sdLocationString

Used By

[Data].[Address]

[sdLocationString].[CountryName]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	60

SQL Script

CREATE TYPE [sdLocationString].[CountryName] FROM nvarchar (60) NOT NULL
GO

Uses

sdLocationString

Used By

[Data].[Country]
[Data].[uvw_InvoiceDetail]
[Data].[uvw_SaleByCountry]
[SourceData].[uvw_SalesText]
[DataTransfer].[tvf_SalesByYear]
[Reference].[tvf_YearlySales]

[sdLocationString].[PostCode]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	9

SQL Script

CREATE TYPE [sdLocationString].[PostCode] FROM nvarchar (9) NULL
GO

Uses

sdLocationString

Used By

[Data].[Address]

[sdLocationString].[RegionName]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	20

SQL Script

CREATE TYPE [sdLocationString].[RegionName] FROM nvarchar (20) NOT NULL GO

Uses

sdLocationString

Used By

[Data].[SalesRegion] [Reference].[SalesBudgets]

[sdLocationString].[TownName]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [sdLocationString].[TownName] FROM nvarchar (50) NOT NULL
GO

Uses

sdLocationString

Used By

[Data].[Town]



Objects

Name	
dbo	
guest	



Properties

Property	Value
Туре	SqlUser
Login Name	sa
Default Schema	dbo

Database Level Permissions

Туре	Action
CONNECT	Grant

SQL Script

GO



Properties

Property	Value
Туре	SqlUser
Default Schema	guest

SQL Script

GO			

La 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

Project > localhost,13001 > User databases > PrestigeCarsNormalized > Security > Roles > Database Roles > db_securityadmin

Properties

Property	Value
Owner	dbo

♣•• public

Properties

Property	Value
Owner	dbo

△ Schemas

Objects

Name
Data
DataTransfer
DbSecurity
dDateTime
dNumeric
dString
Output
Process
Reference
sdDescriptionString
sdISOString
sdKeyNumeric
sdKeyString
sdLocationString
SourceData
Utils

♣ Data

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [Data]
AUTHORIZATION [dbo]
GO
```

Used By

[Data].[Address]

[Data].[Country]

[Data].[CountryCurrency]

[Data].[Currency]

[Data].[Customer]

[Data].[Make]

[Data].[Model]

[Data] [ModelVariant]

[Data].[PivotTable]

[Data].[Sale]

[Data].[SaleDetail]

[Data].[SalesRegion]

[Data].[Stock]

[Data].[StockColor]

[Data].[StockDetail]

[Data].[Town]

[Data].[uvw_InvoiceDetail]

[Data].[uvw_SaleByCountry]

△ DataTransfer

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [DataTransfer]
AUTHORIZATION [dbo]
GO
```

Used By

[DataTransfer].[tvf_SalesByYear]

♣ DbSecurity

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [DbSecurity]
AUTHORIZATION [dbo]
GO
```

Used By

[DbSecurity].[UserAuthorization]

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [dDateTime]
AUTHORIZATION [dbo]
GO
```

Used By

[dDateTime].[DateMM]
[dDateTime].[DateTimeYYYYMMDD-HH:MM:SS]
[dDateTime].[DateYYYY]
[dDateTime].[DateYYYYMMDD]
[dDateTime].[SaleDateTime]
[dDateTime].[SaleTime]

△ dNumeric

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [dNumeric]
AUTHORIZATION [dbo]
GO
```

Used By

[dNumeric].[Flag]
[dNumeric].[LineNumber]
[dNumeric].[MoneyNumeric]
[dNumeric].[RowNumber]

△ dString

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [dString]
AUTHORIZATION [dbo]
GO
```

Used By

[dString].[BudgetComment] [dString].[BuyerComment] [dString].[ClassTime]

⚠ Output

Properties

Property	Value
Owner	dbo

SQL Script

CREATE SCHEMA [Output]
AUTHORIZATION [dbo]
GO

Used By

[Output].[uvw_StockPrices]

⚠ Process

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [Process]
AUTHORIZATION [dbo]
GO
```

Used By

[Process].[WorkFlowStep]

△ Reference

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [Reference]
AUTHORIZATION [dbo]
GO
```

Used By

[Reference].[Budget]

[Reference].[Forex]

[Reference].[SalesBudgets]

[Reference].[SalesCategory]

[Reference].[Staff]

[Reference].[StaffHierarchy]

[Reference].[uvw_MarketingCategories]

[Reference].[uvw_MarketingInformation]

[Reference].[tvf_YearlySales]

△ sdDescriptionString

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [sdDescriptionString]
AUTHORIZATION [dbo]
GO
```

Used By

[sdDescriptionString].[BudgetDescription]
[sdDescriptionString].[CarDescription]
[sdDescriptionString].[CategoryDescription]
[sdDescriptionString].[ColorName]
[sdDescriptionString].[Currency]
[sdDescriptionString].[CurrencySymbol]
[sdDescriptionString].[DepartmentDescription]
[sdDescriptionString].[PersonName]
[sdDescriptionString].[ProjectDescription]
[sdDescriptionString].[WorkFlowDescription]

△ sdlSOString

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [sdISOString]
AUTHORIZATION [dbo]
GO
```

Used By

[sdISOString].[ISO2] [sdISOString].[ISO3]

△ sdKeyNumeric

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [sdKeyNumeric]
AUTHORIZATION [dbo]
GO
```

Used By

[sdKeyNumeric].[SurrogateKeyInt]

△ sdKeyString

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [sdKeyString]
AUTHORIZATION [dbo]
GO
```

Used By

[sdKeyString].[InvoiceNchar8] [sdKeyString].[StockCodeNchar36]

♣ sdLocationString

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [sdLocationString]
AUTHORIZATION [dbo]
GO
```

Used By

[sdLocationString].[Address]
[sdLocationString].[CountryName]
[sdLocationString].[PostCode]
[sdLocationString].[RegionName]
[sdLocationString].[TownName]

△ SourceData

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [SourceData]
AUTHORIZATION [dbo]
GO
```

Used By

[SourceData].[uvw_SalesInPounds] [SourceData].[uvw_SalesText]

△ Utils

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [Utils]
AUTHORIZATION [dbo]
GO
```

Used By

 $[Utils]. [uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint] \\$