localhost, 13001 Documentation

QueensClassSchedule

Server LOCALHOST, 13001

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■ LOCALHOST, 13001

Databases (1)

• ■ QueensClassSchedule

Server Properties

Property	Value		
Product	Microsoft SQL Server		
Version	15.0.4345.5		
Language	English		
Platform	NT x64		
Edition	Developer Edition (64-bit)		
Engine Edition	3 (Enterprise)		
Processors	16		
OS Version	6.2 (9200)		
Physical Memory	5490		
Is Clustered	False		
Root Directory	C:\		
Collation	SQL_Latin1_General_CP1_CI_AS		

Server Settings

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

Advanced Server Settings

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

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

□ User databases

Databases (1)

• ■ QueensClassSchedule

☐ QueensClassSchedule Database

Database Properties

Property	Value	
SQL Server Version	SqlServer2019	
Compatibility Level	SQL Server 2016	
Last backup time	05/17/2024	
Last log backup time	-	
Creation date	May 17 2024	
Users	7	
Database Encryption Enabled	False	
Database Encryption Algorithm	None	
Database size	208.00 MB	
Unallocated space	64.61 MB	

Database Options

Property	Value		
Compatibility Level	130		
Database collation	SQL_Latin1_General_CP1_CI_AS		
Restrict access	MULTI_USER		
Is read-only	False		
Auto close	False		
Auto shrink	False		
Database status	ONLINE		
In standby	False		
Cleanly shutdown	False		
Supplemental logging enabled	False		
Snapshot isolation state	OFF		
Read committed snapshot on	False		
Recovery model	FULL		
Page verify option	CHECKSUM		
Auto create statistics	True		
Auto update statistics	True		
Auto update statistics asynchronously	False		
ANSI NULL default	False		
ANSI NULL enabled	False		
ANSI padding enabled	False		

ANSI warnings enabled	False
Arithmetic abort enabled	False
Concatenating NULL yields NULL	False
Numeric roundabort enabled	False
Quoted Identifier On	False
Recursive triggers enabled	False
Close cursors on commit	False
Local cursors by default	False
Fulltext enabled	True
Trustworthy	False
Database chaining	False
Forced parameterization	False
Master key encrypted by server	False
Published	False
Subscribed	False
Merge published	False
Is distribution database	False
Sync with backup	False
Service broker GUID	9f5d9c27-bc5c-4d67-9b27-e7ae78bc354f
Service broker enabled	False
Date correlation	False
CDC enabled	False
Encrypted	False
Honor broker priority	False
Default language	English
Default fulltext language LCID	1033
Nested triggers enabled	True
Transform noise words	False
Two-digit year cutoff	2049
Containment	NONE
Target recovery time	60
Database owner	sa

Files

Name	Туре	Size	Maxsize	Autogrowth	File Name
QC2019	Data	72.00 MB	unlimited	64.00 MB	/var/opt/mssql/backup/QueensClassScheduleCurrent- Semester.mdf
QC2019_log	Log	136.00 MB	2048.00 GB	64.00 MB	/var/opt/mssql/backup/QueensClassScheduleCurrent- Semester_0.ldf

■ Tables

Objects

Name
Class.ModeOfInstruction
Course.Class
Course.Course
dbo.Department_Instructor
DBSecurity.UserAuthorization
Department.Department
Department.Instructor
Location.BuildingLocation
Location.RoomLocation
Process.WorkflowSteps
Uploadfile.CurrentSemesterCourseOfferings

□ [Class].[ModeOfInstruction]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	4
Created	7:10:56 PM Thursday, May 9, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	ModeOfInstructionKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	1 - 1
FK	UserAuthorizationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	
	ModeOfInstructionName	[UDT].[ModeOfInstruction]	100	NOT NULL	
	DateAdded	[UDT].[DateOf]	8	NULL allowed	
	DateOfLastUpdate	[UDT].[DateOf]	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK G	PK_ModeOfInstruction	ModeOfInstructionKey	True

Foreign Keys

Name	Columns
FK_ModeOfInstruction_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]

```
CREATE TABLE [Class].[ModeOfInstruction]
(
[ModeOfInstructionKey] [UDT].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[ModeOfInstructionName] [UDT].[ModeOfInstruction] NOT NULL,
[DateAdded] [UDT].[DateOf] NULL,
[DateOfLastUpdate] [UDT].[DateOf] NULL
) ON [PRIMARY]
```

```
ALTER TABLE [Class].[ModeOfInstruction] ADD CONSTRAINT [PK_ModeOfInstruction] PRIMARY KEY
CLUSTERED ([ModeOfInstructionKey]) ON [PRIMARY]

GO
ALTER TABLE [Class].[ModeOfInstruction] ADD CONSTRAINT [FK_ModeOfInstruction_UserAuthorization]
FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([User-AuthorizationKey])

GO
```

Uses

[DBSecurity].[UserAuthorization] [UDT].[DateOf] [UDT].[ModeOfInstruction] [UDT].[SurrogateKeyInt] Class

Used By

[Course].[Class]
[Project3].[Load_Class]
[Project3].[Load_ModeOfInstruction]
[Project3].[ShowTableStatusRowCount]
[Project3].[TruncateData]

■ [Course].[Class]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	4352
Created	7:29:08 PM Thursday, May 16, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	ClassKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	1 - 1	
FK	UserAuthorizationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL		
FK	CourseKey	[UDT].[SurrogateKeyInt]	4	NOT NULL		
FK	ModeOfInstructionKey	[UDT].[SurrogateKeyInt]	4	NOT NULL		
	Section	[UDT].[Section]	50	NOT NULL		
	CourseCode	[UDT].[CourseCode]	50	NOT NULL		
	CourseName	[UDT].[CourseName]	50	NOT NULL		
	CourseDescription	[UDT].[CourseDesc]	50	NOT NULL		
FK	InstructorKey	[UDT].[SurrogateKeyInt]	4	NOT NULL		((1143))
	InstructorFullName	[UDT].[Name]	100	NOT NULL		('N/A')
FK	RoomLocationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL		((137))
	Day	[UDT].[DayOfWeek]	100	NOT NULL		('N/A')
	StartTime	[UDT].[ClassTime]	100	NOT NULL		('N/A')
	EndTime	[UDT].[ClassTime]	100	NOT NULL		('N/A')
	NumberEnrolled	[UDT].[IntValue]	4	NOT NULL		((0))
	Limit	[UDT].[IntValue]	4	NULL allowed		
	OverTally	[UDT].[Count]	4	NOT NULL		((0))
	ModeOfInstructionName	[UDT].[ModeOfInstruction]	100	NOT NULL		
	DateAdded	[UDT].[DateOf]	8	NULL allowed		
	DateOfLastUpdate	[UDT].[DateOf]	8	NULL allowed		

Indexes

Key	Name	Key Columns	Unique
PK	PK_Class	ClassKey	True

Foreign Keys

Name	Columns
FK_Class_Course	CourseKey->[Course].[CourseKey]
FK_Class_Instructor	InstructorKey->[Department].[Instructor].[InstructorKey]
FK_Class_ModeOfInstruction	ModeOfInstructionKey->[Class].[ModeOfInstruction].[ModeOfInstructionKey]
FK_Class_RoomLocation	RoomLocationKey->[Location].[RoomLocation].[RoomLocationKey]
FK_Class_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]

```
CREATE TABLE [Course].[Class]
[ClassKey] [UDT].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[CourseKey] [UDT].[SurrogateKeyInt] NOT NULL,
[ModeOfInstructionKey] [UDT].[SurrogateKeyInt] NOT NULL,
[Section] [UDT].[Section] NOT NULL,
[CourseCode] [UDT].[CourseCode] NOT NULL,
[CourseName] [UDT].[CourseName] NOT NULL,
[CourseDescription] [UDT].[CourseDesc] NOT NULL,
[InstructorKey] [UDT].[SurrogateKeyInt] NOT NULL CONSTRAINT [DFT Class InstructorKey] DEFAULT
((1143)),
[InstructorFullName] [UDT].[Name] NOT NULL CONSTRAINT [DFT Class InstructorFullName] DEFAULT
('N/A'),
[RoomLocationKey] [UDT].[SurrogateKeyInt] NOT NULL CONSTRAINT [DFT Class RoomLocationKey] DEFAULT
[Day] [UDT].[DayOfWeek] NOT NULL CONSTRAINT [DFT Class Day] DEFAULT ('N/A'),
[StartTime] [UDT].[ClassTime] NOT NULL CONSTRAINT [DFT_Class_StartTime] DEFAULT ('N/A'),
[EndTime] [UDT].[ClassTime] NOT NULL CONSTRAINT [DFT Class EndTime] DEFAULT ('N/A'),
[NumberEnrolled] [UDT].[IntValue] NOT NULL CONSTRAINT [DFT Class NumberEnrolled] DEFAULT ((0)),
[Limit] [UDT].[IntValue] NULL,
[OverTally] [UDT].[Count] NOT NULL CONSTRAINT [DFT Class OverTally] DEFAULT ((0)),
[ModeOfInstructionName] [UDT].[ModeOfInstruction] NOT NULL,
[DateAdded] [UDT].[DateOf] NULL,
[DateOfLastUpdate] [UDT].[DateOf] NULL
) ON [PRIMARY]
GO
ALTER TABLE [Course].[Class] ADD CONSTRAINT [PK Class] PRIMARY KEY CLUSTERED ([ClassKey]) ON
[PRTMARY]
ALTER TABLE [Course].[Class] ADD CONSTRAINT [FK_Class_Course] FOREIGN KEY ([CourseKey])
REFERENCES [Course].[Course] ([CourseKey])
```

```
ALTER TABLE [Course].[Class] ADD CONSTRAINT [FK_Class_Instructor] FOREIGN KEY ([InstructorKey])

GO

ALTER TABLE [Course].[Class] ADD CONSTRAINT [FK_Class_ModeOfInstruction] FOREIGN KEY ([ModeOf-InstructionKey]) REFERENCES [Class].[ModeOfInstruction] ([ModeOfInstructionKey])

GO

ALTER TABLE [Course].[Class] ADD CONSTRAINT [FK_Class_RoomLocation] FOREIGN KEY ([RoomLocation-Key]) REFERENCES [Location].[RoomLocation] ([RoomLocationKey])

GO

ALTER TABLE [Course].[Class] ADD CONSTRAINT [FK_Class_UserAuthorization] FOREIGN KEY ([User-AuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([UserAuthorizationKey])

GO
```

Uses

[Class].[ModeOfInstruction]

[Course].[Course]

[DBSecurity].[UserAuthorization]

[Department].[Instructor]

[Location].[RoomLocation]

[UDT].[ClassTime]

[UDT].[Count]

[UDT].[CourseCode]

[UDT].[CourseDesc]

[UDT].[CourseName]

[UDT].[DateOf]

[UDT].[DayOfWeek]

[UDT].[IntValue]

[UDT].[ModeOfInstruction]

[UDT].[Name]

[UDT].[Section]

[UDT].[SurrogateKeyInt]

Course

Used By

[Project3].[Load_Class]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

[Class].[itvf_GetAvailableClasses]

☐ [Course].[Course]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	1627
Created	6:49:10 PM Friday, May 17, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PKP C	CourseKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	1 - 1
FK	UserAuthorizationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	
FK	DepartmentKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	
	CourseName	[UDT].[CourseName]	50	NOT NULL	
	CourseDescription	[UDT].[CourseDesc]	50	NOT NULL	
	DepartmentName	[UDT].[DepartmentName]	100	NOT NULL	
	NumberOfHours	[UDT].[Hour]	9	NOT NULL	
	NumberOfCredits	[UDT].[Credit]	9	NOT NULL	
	DateAdded	[UDT].[DateOf]	8	NULL allowed	
	DateOfLastUpdate	[UDT].[DateOf]	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PKP C	PK_Course	CourseKey	True

Foreign Keys

Name	Columns
FK_Course_Department	DepartmentKey->[Department].[DepartmentKey]
FK_Course_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Course].[Course]
[CourseKey] [UDT].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[DepartmentKey] [UDT].[SurrogateKeyInt] NOT NULL,
[CourseName] [UDT].[CourseName] NOT NULL,
[CourseDescription] [UDT].[CourseDesc] NOT NULL,
[DepartmentName] [UDT].[DepartmentName] NOT NULL,
[NumberOfHours] [UDT].[Hour] NOT NULL,
[NumberOfCredits] [UDT].[Credit] NOT NULL,
[DateAdded] [UDT].[DateOf] NULL,
[DateOfLastUpdate] [UDT].[DateOf] NULL
) ON [PRIMARY]
ALTER TABLE [Course] .[Course] ADD CONSTRAINT [PK_Course] PRIMARY KEY CLUSTERED ([CourseKey]) ON
[PRIMARY]
ALTER TABLE [Course].[Course] ADD CONSTRAINT [FK Course Department] FOREIGN KEY ([DepartmentKey])
REFERENCES [Department].[Department] ([DepartmentKey])
ALTER TABLE [Course].[Course] ADD CONSTRAINT [FK Course UserAuthorization] FOREIGN KEY ([User-
AuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([UserAuthorizationKey])
GO
```

Uses

[DBSecurity].[UserAuthorization] [Department].[Department] [UDT].[CourseDesc] [UDT].[CourseName] [UDT].[Credit] [UDT].[DateOf] [UDT].[DepartmentName] [UDT].[Hour]

[UDT].[SurrogateKeyInt]

Course

Used By

[Course].[Class] [Project3].[Load_Class] [Project3].[Load_Course] [Project3].[ShowTableStatusRowCount] [Project3].[TruncateData] [Class].[itvf GetAvailableClasses]

[dbo].[Department_Instructor]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	1730
Created	12:48:01 PM Friday, May 10, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability
PKOFKO C	DepartmentKey	[UDT].[SurrogateKeyInt]	4	NOT NULL
PKOFKO G	InstructorKey	[UDT].[SurrogateKeyInt]	4	NOT NULL
FK	UserAuthorizationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL
	InstructorFullName	[UDT].[Name]	100	NOT NULL
	DepartmentName	[UDT].[Name]	100	NOT NULL
	DateAdded	[UDT].[DateOf]	8	NULL allowed
	DateOfLastUpdate	[UDT].[DateOf]	8	NULL allowed

Indexes

Key	Name	Key Columns	Unique
PKC	PKDepartme7C174979CF44552E	DepartmentKey, InstructorKey	True

Foreign Keys

Name	Columns
FKDepartment_Bridge_Instructor	DepartmentKey->[Department].[Department].[DepartmentKey]
FKInstructor_Bridge_Department	InstructorKey->[Department].[Instructor].[InstructorKey]
FK_Bridge_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]

```
CREATE TABLE [dbo].[Department_Instructor]
(
[DepartmentKey] [UDT].[SurrogateKeyInt] NOT NULL,
```

```
[InstructorKey] [UDT].[SurrogateKeyInt] NOT NULL,
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[InstructorFullName] [UDT].[Name] NOT NULL,
[DepartmentName] [UDT].[Name] NOT NULL,
[DateAdded] [UDT].[DateOf] NULL,
[DateOfLastUpdate] [UDT].[DateOf] NULL
) ON [PRIMARY]
ALTER TABLE [dbo].[Department Instructor] ADD CONSTRAINT [PK Departme 7C174979CF44552E] PRIMARY
KEY CLUSTERED ([DepartmentKey], [InstructorKey]) ON [PRIMARY]
ALTER TABLE [dbo].[Department Instructor] ADD CONSTRAINT [FK Department Bridge Instructor]
FOREIGN KEY ([DepartmentKey]) REFERENCES [Department].[Department] ([DepartmentKey])
ALTER TABLE [dbo].[Department Instructor] ADD CONSTRAINT [FK Instructor Bridge Department]
FOREIGN KEY ([InstructorKey]) REFERENCES [Department].[Instructor] ([InstructorKey])
ALTER TABLE [dbo].[Department Instructor] ADD CONSTRAINT [FK Bridge UserAuthorization] FOREIGN
KEY ([UserAuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([UserAuthorizationKey])
GO
```

Uses

[DBSecurity].[UserAuthorization]
[Department].[Department]
[Department].[Instructor]
[UDT].[DateOf]
[UDT].[Name]
[UDT].[SurrogateKeyInt]

Used By

[Project3].[Load_Department_Instructor] [Project3].[ShowTableStatusRowCount] [Project3].[TruncateData]

■ [DBSecurity].[UserAuthorization]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	8
Created	7:37:52 PM Thursday, May 9, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	UserAuthorizationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	1 - 1	
	ClassTime	[UDT].[ClassTime]	100	NOT NULL		('7:45')
	IndividualProject	[UDT].[IndividualProject]	100	NOT NULL		('Project 3')
	GroupMemberLastName	[UDT].[Name]	100	NOT NULL		
	GroupMemberFirstName	[UDT].[Name]	100	NOT NULL		
	GroupName	[UDT].[Name]	100	NOT NULL		('New Group 2')
	DateAdded	[UDT].[DateOf]	8	NULL allowed		

Indexes

Key	Name	Key Columns	Unique
PK	PK_UserAuthorization	UserAuthorizationKey	True

```
CREATE TABLE [DBSecurity].[UserAuthorization]

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

[ClassTime] [UDT].[ClassTime] NOT NULL CONSTRAINT [DFT_UserAuthorization_ClassTime] DEFAULT ('7:45'),

[IndividualProject] [UDT].[IndividualProject] NOT NULL CONSTRAINT [DFT_UserAuthorization_-IndividualProject] DEFAULT ('Project 3'),

[GroupMemberLastName] [UDT].[Name] NOT NULL,

[GroupMemberFirstName] [UDT].[Name] NOT NULL,

[GroupMemberFirstName] [UDT].[Name] NOT NULL,

[GroupName] [UDT].[Name] NOT NULL CONSTRAINT [DFT_UserAuthorization_GroupName] DEFAULT ('New Group 2'),

[DateAdded] [UDT].[DateOf] NULL
```

```
) ON [PRIMARY]

GO

ALTER TABLE [DBSecurity].[UserAuthorization] ADD CONSTRAINT [PK_UserAuthorization] PRIMARY KEY

CLUSTERED ([UserAuthorizationKey]) ON [PRIMARY]

GO
```

Uses

[UDT].[ClassTime]

[UDT].[DateOf]

[UDT].[IndividualProject]

[UDT].[Name]

[UDT].[SurrogateKeyInt]

DBSecurity

Used By

[Class].[ModeOfInstruction]

[Course].[Class]

[Course].[Course]

[dbo].[Department_Instructor]

[Department].[Department]

[Department].[Instructor]

[Location].[BuildingLocation]

[Location].[RoomLocation]

[Process].[WorkflowSteps]

[Project3].[ShowTableStatusRowCount]

■ [Department].[Department]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	85
Created	11:30:10 AM Friday, May 10, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PKP C	DepartmentKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	1 - 1
FK	UserAuthorizationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	
	DepartmentName	[UDT].[DepartmentName]	100	NOT NULL	
	DateAdded	[UDT].[DateOf]	8	NULL allowed	
	DateOfLastUpdate	[UDT].[DateOf]	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK G	PK_Department	DepartmentKey	True

Foreign Keys

Name	Columns
FK_Department_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]

```
CREATE TABLE [Department].[Department]
(
[DepartmentKey] [UDT].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[DepartmentName] [UDT].[DepartmentName] NOT NULL,
[DateAdded] [UDT].[DateOf] NULL,
[DateOfLastUpdate] [UDT].[DateOf] NULL
) ON [PRIMARY]
```

```
ALTER TABLE [Department].[Department] ADD CONSTRAINT [PK_Department] PRIMARY KEY CLUSTERED ([DepartmentKey]) ON [PRIMARY]

GO

ALTER TABLE [Department].[Department] ADD CONSTRAINT [FK_Department_UserAuthorization] FOREIGN

KEY ([UserAuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([UserAuthorizationKey])

GO
```

Uses

[DBSecurity].[UserAuthorization] [UDT].[DateOf] [UDT].[DepartmentName] [UDT].[SurrogateKeyInt]

Department

Used By

[Course].[Course]
[dbo].[Department_Instructor]
[Project3].[Load_Course]
[Project3].[Load_Department]
[Project3].[Load_Department_Instructor]
[Project3].[ShowTableStatusRowCount]
[Project3].[TruncateData]

■ [Department].[Instructor]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	1597
Created	11:19:11 PM Thursday, May 16, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Persisted	Computed	Max Length (Bytes)	Nullability	Identity
₽ <mark>≯</mark> C	InstructorKey	[UDT].[SurrogateKeyInt]			4	NOT NULL	1 - 1
F	UserAuthorizationKey	[UDT].[SurrogateKeyInt]			4	NOT NULL	
	InstructorFirstName	nvarchar(50)	True	True	100	NOT NULL	
	InstructorLastName	nvarchar(50)	True	True	100	NOT NULL	
	InstructorFullName	[UDT].[Name]			100	NOT NULL	
	DateAdded	[UDT].[DateOf]			8	NULL allowed	
	DateOfLastUpdate	[UDT].[DateOf]			8	NULL allowed	

Computed columns

Name	Column definition	
InstructorFirstName	(case when [InstructorFullName]='N/A' then 'N/A' else substring([InstructorFullName],charindex(',',[InstructorFullName])+(2),len([InstructorFullName])) end)	
InstructorLastName	(case when [InstructorFullName]='N/A' then 'N/A' else substring([InstructorFull-Name],(1),charindex(',',[InstructorFullName])-(1)) end)	

Indexes

Key	Name	Key Columns	Unique
PKP C	PK_Instructor	InstructorKey	True

Foreign Keys

Name	Columns
FK_Instructor_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Department].[Instructor]
[InstructorKey] [UDT].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[InstructorFirstName] AS (case when [InstructorFullName]='N/A' then 'N/A' else
substring([InstructorFullName],charindex(',',',[InstructorFullName]))+(2),len([InstructorFullName]))
end) PERSISTED NOT NULL,
[InstructorLastName] AS (case when [InstructorFullName]='N/A' then 'N/A' else
 ubstring([InstructorFullName],(1),charindex(',',[InstructorFullName])-(1)) end) PERSISTED NOT
[InstructorFullName] [UDT].[Name] NOT NULL,
[DateAdded] [UDT].[DateOf] NULL,
[DateOfLastUpdate] [UDT].[DateOf] NULL
) ON [PRIMARY]
GO
ALTER TABLE [Department].[Instructor] ADD CONSTRAINT [PK Instructor] PRIMARY KEY CLUSTERED
([InstructorKey]) ON [PRIMARY]
ALTER TABLE [Department].[Instructor] ADD CONSTRAINT [FK Instructor UserAuthorization] FOREIGN
KEY ([UserAuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([UserAuthorizationKey])
```

Uses

[DBSecurity].[UserAuthorization]
[UDT].[DateOf]
[UDT].[Name]
[UDT].[SurrogateKeyInt]
Department

Used By

[Course].[Class]
[dbo].[Department_Instructor]
[Project3].[Load_Class]
[Project3].[Load_Department_Instructor]
[Project3].[Load_Instructor]
[Project3].[ShowTableStatusRowCount]
[Project3].[TruncateData]

☐ [Location].[BuildingLocation]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	24
Created	11:39:16 AM Friday, May 10, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	BuildingLocationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	1 - 1
FK	UserAuthorizationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	
	BuildingLocationName	[UDT].[Location]	100	NOT NULL	
	DateAdded	[UDT].[DateOf]	8	NULL allowed	
	DateOfLastUpdate	[UDT].[DateOf]	8	NULL allowed	

Indexes

Key	Name	Key Columns	Unique
PK G	PK_BuildingLocation	BuildingLocationKey	True

Foreign Keys

Name	Columns
FK_BuildingLocation_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]

```
CREATE TABLE [Location].[BuildingLocation]
(
[BuildingLocationKey] [UDT].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[BuildingLocationName] [UDT].[Location] NOT NULL,
[DateAdded] [UDT].[DateOf] NULL,
[DateOfLastUpdate] [UDT].[DateOf] NULL
) ON [PRIMARY]
```

```
GO
ALTER TABLE [Location].[BuildingLocation] ADD CONSTRAINT [PK_BuildingLocation] PRIMARY KEY
CLUSTERED ([BuildingLocationKey]) ON [PRIMARY]
GO
ALTER TABLE [Location].[BuildingLocation] ADD CONSTRAINT [FK_BuildingLocation_UserAuthorization]
FOREIGN KEY ([UserAuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([User-AuthorizationKey])
GO
```

Uses

[DBSecurity].[UserAuthorization]
[UDT].[DateOf]
[UDT].[Location]
[UDT].[SurrogateKeyInt]
Location

Used By

[Location].[RoomLocation]
[Project3].[Load_BuildingLocation]
[Project3].[Load_RoomLocation]
[Project3].[ShowTableStatusRowCount]
[Project3].[TruncateData]

☐ [Location].[RoomLocation]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	319
Created	6:10:59 PM Friday, May 17, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Computed	Max Length (Bytes)	Nullability	Identity
PK C	RoomLocationKey	[UDT].[SurrogateKeyInt]		4	NOT NULL	1 - 1
FK	BuildingLocationkey	[UDT].[SurrogateKeyInt]		4	NOT NULL	
FK	UserAuthorizationKey	[UDT].[SurrogateKeyInt]		4	NOT NULL	
	BuildingLocationName	nvarchar(50)	True	100	NULL allowed	
	RoomLocationNumber	nvarchar(10)	True	20	NULL allowed	
	RoomLocationFullName	[UDT].[RoomLocation]		100	NOT NULL	
	DateAdded	[UDT].[DateOf]		8	NULL allowed	
	DateOfLastUpdate	[UDT].[DateOf]		8	NULL allowed	

Computed columns

Name	Column definition
BuildingLocationName	(case when [RoomLocationFullName]='N/A' then 'N/A' else [UDT].[GetBuildingName]([RoomLocation-FullName]) end)
RoomLocationNumber	(case when [RoomLocationFullName]='N/A' then 'N/A' else [UDT].[GetRoomNumber]([RoomLocation-FullName]) end)

Indexes

Key	Name	Key Columns	Unique
PK	PK_RoomLocation	RoomLocationKey	True

Foreign Keys

Name	Columns	
FK_RoomLocation_BuildingLocation	BuildingLocationkey->[Location].[BuildingLocation].[BuildingLocationKey]	
FK_RoomLocation_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]	

SQL Script

```
CREATE TABLE [Location].[RoomLocation]
[RoomLocationKey] [UDT].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[BuildingLocationkey] [UDT].[SurrogateKeyInt] NOT NULL,
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[BuildingLocationName] AS (case when [RoomLocationFullName]='N/A' then 'N/A' else [UDT].[Get-
BuildingName]([RoomLocationFullName]) end),
[RoomLocationNumber] AS (case when [RoomLocationFullName]='N/A' then 'N/A' else [UDT].[GetRoom-
Number]([RoomLocationFullName]) end),
[RoomLocationFullName] [UDT].[RoomLocation] NOT NULL,
[DateAdded] [UDT].[DateOf] NULL,
[DateOfLastUpdate] [UDT].[DateOf] NULL
) ON [PRIMARY]
ALTER TABLE [Location].[RoomLocation] ADD CONSTRAINT [PK_RoomLocation] PRIMARY KEY CLUSTERED
([RoomLocationKey]) ON [PRIMARY]
GO
ALTER TABLE [Location]. [RoomLocation] ADD CONSTRAINT [FK RoomLocation BuildingLocation] FOREIGN
KEY ([BuildingLocationkey]) REFERENCES [Location].[BuildingLocation] ([BuildingLocationKey])
ALTER TABLE [Location]. [RoomLocation] ADD CONSTRAINT [FK RoomLocation UserAuthorization] FOREIGN
KEY ([UserAuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([UserAuthorizationKey])
```

Uses

[DBSecurity].[UserAuthorization]

[Location].[BuildingLocation]

[UDT].[DateOf]

[UDT].[RoomLocation]

[UDT].[SurrogateKeyInt]

[UDT].[GetBuildingName]

[UDT].[GetRoomNumber]

Location

Used By

[Course].[Class]

[Project3].[Load_Class]

[Project3].[Load_RoomLocation]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

[Process].[WorkflowSteps]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	14
Created	12:01:39 PM Friday, May 10, 2024
Last Modified	7:33:24 PM Friday, May 17, 2024

Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK C	WorkFlowStepKey	[UDT].[SurrogateKeyInt]	4	NOT NULL	1 - 1	
FK	UserAuthorizationKey	[UDT].[SurrogateKeyInt]	4	NOT NULL		
	WorkFlowStepDescription	[UDT].[Description]	100	NOT NULL		
	WorkFlowStepTableRowCount	[UDT].[Count]	4	NOT NULL		((0))
	StartingDateTime	[UDT].[DateOf]	8	NULL allowed		
	EndingDateTime	[UDT].[DateOf]	8	NULL allowed		
	ClassTime	[UDT].[ClassTime]	100	NOT NULL		('7:45')

Indexes

Key	Name	Key Columns	Unique
PK C	PK_WorkflowSteps	WorkFlowStepKey	True

Check Constraints

Name	On Column	Constraint
CK_WorkflowSteps_ClassTime	ClassTime	([ClassTime]='7:45')

Foreign Keys

Name	Columns
FK_WorkFlowSteps_UserAuthorization	UserAuthorizationKey->[DBSecurity].[UserAuthorization].[UserAuthorizationKey]

SQL Script

```
CREATE TABLE [Process].[WorkflowSteps]
[WorkFlowStepKey] [UDT].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[UserAuthorizationKey] [UDT].[SurrogateKeyInt] NOT NULL,
[WorkFlowStepDescription] [UDT].[Description] NOT NULL,
[WorkFlowStepTableRowCount] [UDT].[Count] NOT NULL CONSTRAINT [DFT WorkflowSteps WorkFlowStep-
TableRowCount] DEFAULT ((0)),
[StartingDateTime] [UDT].[DateOf] NULL,
[EndingDateTime] [UDT].[DateOf] NULL,
[ClassTime] [UDT].[ClassTime] NOT NULL CONSTRAINT [DFT WorkflowSteps ClassTime] DEFAULT ('7:45')
) ON [PRIMARY]
GO
ALTER TABLE [Process].[WorkflowSteps] ADD CONSTRAINT [CK WorkflowSteps ClassTime] CHECK (([Class-
Time] = '7:45')
ALTER TABLE [Process].[WorkflowSteps] ADD CONSTRAINT [PK WorkflowSteps] PRIMARY KEY CLUSTERED
([WorkFlowStepKey]) ON [PRIMARY]
GO
ALTER TABLE [Process].[WorkflowSteps] ADD CONSTRAINT [FK WorkFlowSteps UserAuthorization] FOREIGN
KEY ([UserAuthorizationKey]) REFERENCES [DBSecurity].[UserAuthorization] ([UserAuthorizationKey])
GO
```

Uses

[DBSecurity].[UserAuthorization] [UDT].[ClassTime] [UDT].[Count] [UDT].[DateOf]

[UDT].[Description]

[UDT].[SurrogateKeyInt]

Process

Used By

[Process].[TruncateWorkflowStepsTable] [Process].[usp_ShowWorkflowSteps]

[Process].[usp TrackWorkFlow]

[Project3].[ShowTableStatusRowCount]

[Uploadfile].[CurrentSemesterCourseOfferings]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Неар	True
Row Count (~)	4522
Created	4:31:20 PM Monday, April 12, 2021
Last Modified	4:33:21 PM Monday, April 12, 2021

Columns

Name	Data Type	Max Length (Bytes)	Nullability	Default
Semester	varchar(50)	50	NULL allowed	('Current Semester')
Sec	varchar(50)	50	NULL allowed	
Code	varchar(50)	50	NULL allowed	
Course (hr, crd)	varchar(50)	50	NULL allowed	
Description	varchar(50)	50	NULL allowed	
Day	varchar(50)	50	NULL allowed	
Time	varchar(50)	50	NULL allowed	
Instructor	varchar(50)	50	NULL allowed	
Location	varchar(50)	50	NULL allowed	
Enrolled	varchar(50)	50	NULL allowed	
Limit	varchar(50)	50	NULL allowed	
Mode of Instruction	varchar(50)	50	NULL allowed	

```
CREATE TABLE [Uploadfile].[CurrentSemesterCourseOfferings]

(
[Semester] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL CONSTRAINT [DF_Current-SemesterCourseOfferings_Semester] DEFAULT ('Current Semester'),

[Sec] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Code] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Course (hr, crd)] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Description] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Time] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Instructor] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Location] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Enrolled] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Enrolled] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
```

Project > LOCALHOST, 13001 > User databases > QueensClass-Schedule > Tables > Uploadfile.CurrentSemesterCourseOfferings

```
[Limit] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,

[Mode of Instruction] [varchar] (50) COLLATE SQL_Latin1_General_CP1_CI_AS NULL

) ON [PRIMARY]

GO
```

Uses

Uploadfile

Used By

[Project3].[Load_BuildingLocation]

[Project3].[Load_Class]

[Project3].[Load_Course]

[Project3].[Load_Department]

[Project3].[Load_Department_Instructor]

[Project3].[Load_Instructor]

[Project3].[Load_ModeOfInstruction]

[Project3].[Load_RoomLocation]



Objects

Name

 $Utils.uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint$

[Utils].[uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint]

Properties

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
ANSI Nulls On	True
Quoted Identifier On	True
Created	9:19:15 AM Sunday, October 27, 2019
Last Modified	9:19:15 AM Sunday, October 27, 2019

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

```
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 = '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
        ( SELECT TABLE CATALOG ,
FROM
                   TABLE SCHEMA ,
                   TABLE NAME ,
                   TABLE TYPE
                   INFORMATION SCHEMA. TABLES
         FROM
                  ( TABLE TYPE = 'BASE TABLE' )
         WHERE
        ) 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
```

Utils

■ Stored Procedures

Objects

Name
Process.TruncateWorkflowStepsTable
Process.usp_ShowWorkflowSteps
Process.usp_TrackWorkFlow
Project3.AddForeignKeys
Project3.DropForeignKeys
Project3.Load_BuildingLocation
Project3.Load_Class
Project3.Load_Course
Project3.Load_Department
Project3.Load_Department_Instructor
Project3.Load_Instructor
Project3.Load_ModeOfInstruction
Project3.Load_QueensCourseSchedule
Project3.Load_RoomLocation
Project3.ShowTableStatusRowCount
Project3.TruncateData

[Process].[TruncateWorkflowStepsTable]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

```
-- Author: Kathy He
-- Procedure Name: Process.TruncateWorkflowStepsTable
-- Create date: 5/13/2024
-- Description: Drops foreign key relations from WorkflowSteps table, truncates it and then adds
foreign key relations back in
-- -----
        PROCEDURE [Process].[TruncateWorkflowStepsTable] @UserAuthorizationKey [UDT].[Surrogate-
KeyInt]
BEGIN
   ALTER TABLE [Process].[WorkflowSteps]
   DROP CONSTRAINT FK_WorkFlowSteps_UserAuthorization; -- drop foreign key constraint
   TRUNCATE TABLE [Process].[WorkflowSteps] -- truncate table
   ALTER TABLE [Process].[WorkflowSteps]
   ADD CONSTRAINT FK WorkFlowSteps UserAuthorization
       FOREIGN KEY (UserAuthorizationKey)
       REFERENCES [DbSecurity]. UserAuthorization (UserAuthorizationKey); -- restore foreign key
constraint
   -- Reason for adding this procedure: Wanting to display every step of workflow before
truncating the workflowsteps table
   -- Next time the Load_QueensSchedule procedure is executed, the WorkflowSteps table will be
ready to be added to.
   END;
```

Project > LOCALHOST, 13001 > User databases > QueensClass-Schedule > Programmability > Stored Procedures > Process.TruncateWorkflowStepsTable

GO

Uses

[Process].[WorkflowSteps] [UDT].[SurrogateKeyInt] Process

Used By

[Process].[usp_ShowWorkflowSteps]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

SQL Script

Uses

[Process].[WorkflowSteps] [UDT].[SurrogateKeyInt] Process Project > LOCALHOST, 13001 > User databases > QueensClass-Schedule > Programmability > Stored Procedures > Process.usp_-ShowWorkflowSteps

Used By

[Process].[usp_TrackWorkFlow]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@WorkFlowStepDescription	Description	100
@WorkFlowStepTableRowCount	Count	4
@StartingDateTime	DateOf	8
@EndingDateTime	DateOf	8
@UserAuthorizationKey	SurrogateKeyInt	4

```
--Author: Jude Pierre
-- Procedure: [Process].[usp_TrackWorkFlow]
-- Created: 5/10/2024
--Description: Stored procedure to store the workflow of each member to the workflow table.
------
              CREATE PROCEDURE [Process].[usp TrackWorkFlow]
              @WorkFlowStepDescription [UDT].[Description],
              @WorkFlowStepTableRowCount [UDT].[Count],
              @StartingDateTime [UDT].[Dateof],
              @EndingDateTime [UDT].[Dateof],
               @UserAuthorizationKey [UDT].[SurrogateKeyInt]
              AS
               BEGIN
               SET NOCOUNT ON
               INSERT INTO [Process].[WorkflowSteps]
                ([{\tt WorkFlowStepDescription}],\ [{\tt WorkFlowStepTableRowCount}],\ [{\tt StartingDateTime}],\ [{\tt EndingDateTime}],\ [{\tt EndingDateTime}],\ [{\tt StartingDateTime}],\ [{\tt St
Time], [UserAuthorizationKey])
```

```
VALUES(
    @WorkFlowStepDescription, @WorkFlowStepTableRowCount, @StartingDateTime, @EndingDateTime,
@UserAuthorizationKey
)

END;
GO
```

[Process].[WorkflowSteps]

[UDT].[Count]

[UDT].[DateOf]

[UDT].[Description]

[UDT].[SurrogateKeyInt]

Process

Used By

[Project3] [AddForeignKeys]

[Project3].[DropForeignKeys]

[Project3].[Load_BuildingLocation]

[Project3].[Load_Class]

[Project3].[Load_Course]

[Project3].[Load_Department]

[Project3].[Load_Department_Instructor]

[Project3].[Load_Instructor]

[Project3].[Load_ModeOfInstruction]

[Project3].[Load_QueensCourseSchedule]

[Project3].[Load_RoomLocation]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

[Project3].[AddForeignKeys]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

```
-- Author: Matthew Robles
-- Procedure: [Project3].[AddForeignKeys]
-- Create date: 5/13/2024
-- Description: Add Foreign Keys
-- -----
CREATE PROCEDURE [Project3].[AddForeignKeys] @UserAuthorizationKey [UDT].[SurrogateKeyInt]
AS
BEGIN
   DECLARE @StartTime [UDT].[DateOf];
   SET @StartTime = SYSDATETIME();
   ALTER TABLE [Course].[Class]
   ADD CONSTRAINT FK Class ModeOfInstruction
       FOREIGN KEY (ModeOfInstructionKey)
       REFERENCES [Class].[ModeOfInstruction] (ModeOfInstructionKey);
   ALTER TABLE [Course].[Class]
   ADD CONSTRAINT FK Class Course
       FOREIGN KEY (CourseKey)
       REFERENCES [Course].[Course] (CourseKey);
   ALTER TABLE [Course].[Class]
   ADD CONSTRAINT FK_Class_RoomLocation
       FOREIGN KEY (RoomLocationKey)
       REFERENCES [Location].[RoomLocation] (RoomLocationKey);
```

```
ALTER TABLE [Course].[Class]
ADD CONSTRAINT FK Class Instructor
    FOREIGN KEY (InstructorKey)
    REFERENCES [Department].[Instructor] (InstructorKey);
ALTER TABLE [Course].[Course]
ADD CONSTRAINT FK Course Department
    FOREIGN KEY (DepartmentKey)
    REFERENCES [Department].[Department] (DepartmentKey);
ALTER TABLE [Location].[RoomLocation]
ADD CONSTRAINT FK RoomLocation BuildingLocation
    FOREIGN KEY (BuildingLocationKey)
    REFERENCES [Location].[BuildingLocation] (BuildingLocationKey);
ALTER TABLE [Course].[Class]
ADD CONSTRAINT FK Class UserAuthorization
    FOREIGN KEY (UserAuthorizationKey)
    REFERENCES [DbSecurity]. UserAuthorization (UserAuthorizationKey);
ALTER TABLE [Course].[Course]
ADD CONSTRAINT FK Course UserAuthorization
    FOREIGN KEY (UserAuthorizationKey)
    REFERENCES [DbSecurity]. UserAuthorization (UserAuthorizationKey);
ALTER TABLE [Class].[ModeOfInstruction]
ADD CONSTRAINT FK ModeOfInstruction UserAuthorization
    FOREIGN KEY (UserAuthorizationKey)
    REFERENCES [DbSecurity]. UserAuthorization (UserAuthorizationKey);
ALTER TABLE [Department].[Department]
ADD CONSTRAINT FK Department UserAuthorization
    FOREIGN KEY (UserAuthorizationKey)
    REFERENCES [DbSecurity]. UserAuthorization (UserAuthorizationKey);
ALTER TABLE [Department].[Instructor]
ADD CONSTRAINT FK Instructor UserAuthorization
    FOREIGN KEY (UserAuthorizationKey)
    REFERENCES [DbSecurity]. UserAuthorization (UserAuthorizationKey);
ALTER TABLE [dbo].[Department Instructor]
ADD CONSTRAINT FK Bridge UserAuthorization
    FOREIGN KEY (UserAuthorizationKey)
    REFERENCES [DbSecurity]. UserAuthorization (UserAuthorizationKey);
ALTER TABLE [dbo].[Department_Instructor]
ADD CONSTRAINT FK Instructor Bridge Department
    FOREIGN KEY (InstructorKey)
    REFERENCES [Department].Instructor (InstructorKey);
ALTER TABLE [dbo].[Department Instructor]
ADD CONSTRAINT FK Department Bridge Instructor
```

```
FOREIGN KEY (DepartmentKey)
        REFERENCES [Department].[Department] (DepartmentKey);
   ALTER TABLE [Location].[BuildingLocation]
    ADD CONSTRAINT FK BuildingLocation UserAuthorization
        FOREIGN KEY (UserAuthorizationKey)
        REFERENCES [DbSecurity]. UserAuthorization (UserAuthorizationKey);
   ALTER TABLE [Location].[RoomLocation]
    ADD CONSTRAINT FK RoomLocation UserAuthorization
        FOREIGN KEY (UserAuthorizationKey)
        REFERENCES [DbSecurity].UserAuthorization (UserAuthorizationKey);
   DECLARE @WorkFlowStepTableRowCount [UDT].[Count];
   SET @WorkFlowStepTableRowCount = 0;
   DECLARE @EndingTime [UDT].[DateOf]
   SET @EndingTime = SYSDATETIME();
   EXEC [Process].[usp_TrackWorkFlow] 'Add Foreign Keys',
                                        @WorkFlowStepTableRowCount,
                                        @StartTime,
                                        @EndingTime,
                                        @UserAuthorizationKey;
    END;
GO
```

[Process].[usp_TrackWorkFlow]
[UDT].[Count]
[UDT].[DateOf]
[UDT].[SurrogateKeyInt]
Project3

Used By

[Project3].[DropForeignKeys]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

```
-- Author: Kathy He
-- Procedure: [Project3].[DropForeignKeys]
-- Create date: 5/13/2024
-- Description: Drop Foreign Keys
-- -----
CREATE PROCEDURE [Project3].[DropForeignKeys] @UserAuthorizationKey [UDT].[SurrogateKeyInt]
AS
BEGIN
   DECLARE @StartTime [UDT].[DateOf];
   SET @StartTime = SYSDATETIME();
   ALTER TABLE [Course].[Class]
   DROP CONSTRAINT FK Class ModeOfInstruction;
   ALTER TABLE [Course].[Class]
   DROP CONSTRAINT FK_Class_Course;
   ALTER TABLE [Course].[Class]
   DROP CONSTRAINT FK Class RoomLocation;
   ALTER TABLE [Course].[Class]
   DROP CONSTRAINT FK Class Instructor;
   ALTER TABLE [Course].[Course]
   DROP CONSTRAINT FK Course Department;
```

```
ALTER TABLE [Location].[RoomLocation]
   DROP CONSTRAINT FK RoomLocation BuildingLocation;
   ALTER TABLE [Course].[Class]
   DROP CONSTRAINT FK Class UserAuthorization;
   ALTER TABLE [Course].[Course]
   DROP CONSTRAINT FK Course UserAuthorization;
   ALTER TABLE [Class].[ModeOfInstruction]
   DROP CONSTRAINT FK ModeOfInstruction UserAuthorization;
   ALTER TABLE [Department].[Department]
   DROP CONSTRAINT FK Department UserAuthorization;
   ALTER TABLE [Department].[Instructor]
   DROP CONSTRAINT FK Instructor UserAuthorization;
   ALTER TABLE [dbo].[Department Instructor]
   DROP CONSTRAINT FK_Bridge_UserAuthorization
   ALTER TABLE [dbo].[Department Instructor]
   DROP CONSTRAINT FK Instructor Bridge Department
   ALTER TABLE [dbo].[Department Instructor]
   DROP CONSTRAINT FK__Department_Bridge_Instructor
   ALTER TABLE [Location].[BuildingLocation]
   DROP CONSTRAINT FK BuildingLocation UserAuthorization;
   ALTER TABLE [Location].[RoomLocation]
   DROP CONSTRAINT FK RoomLocation UserAuthorization;
   DECLARE @WorkFlowStepTableRowCount [UDT].[Count];
   SET @WorkFlowStepTableRowCount = 0;
   DECLARE @EndingTime [UDT].[DateOf]
   SET @EndingTime = SYSDATETIME();
   EXEC [Process].[usp TrackWorkFlow] 'Drop Foreign Keys',
                                        @WorkFlowStepTableRowCount,
                                        @StartTime,
                                        @EndingTime,
                                        @UserAuthorizationKey;
   END;
GO
```

[Process].[usp_TrackWorkFlow]
[UDT].[Count]
[UDT].[DateOf]

Project > LOCALHOST, 13001 > User databases > QueensClass-Schedule > Programmability > Stored Procedures > Project3.Drop-ForeignKeys

[UDT].[SurrogateKeyInt] Project3

Used By

[Project3].[Load_BuildingLocation]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

```
-- Author: Jamal Siddiqui
-- Procedure Name: Project3.Load BuildingLocation
-- Create date: 5/13/2024
-- Description: Procedure to load the data from [QueensClassSchedule].[Uploadfile].[Current-
SemesterCourseOfferings] into [Location].[BuildingLocation];
-- ------
CREATE PROCEDURE [Project3]. [Load BuildingLocation] @UserAuthorizationKey INT
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @DateAdded [DATETIME2] = SYSDATETIME();
   DECLARE @DateOfLastUpdate [DATETIME2] = SYSDATETIME();
   DECLARE @StartingDateTime [DATETIME2] = SYSDATETIME();
   INSERT INTO [Location].[BuildingLocation] (
       BuildingLocationName, UserAuthorizationKey, DateAdded, DateOfLastUpdate
   SELECT DISTINCT
       [UDT].[GetBuildingName]([Location]) AS BuildingLocationName,
       @UserAuthorizationKey,
       @DateAdded,
       @DateOfLastUpdate
   FROM [Uploadfile].[CurrentSemesterCourseOfferings]
   ORDER BY BuildingLocationName
   DECLARE @WorkFlowStepTableRowCount [UDT].[Count];
   SET @WorkFlowStepTableRowCount = (
```

Project > LOCALHOST, 13001 > User databases > QueensClass-Schedule > Programmability > Stored Procedures > Project3.Load_-BuildingLocation

```
SELECT COUNT(*)

FROM [Location].[BuildingLocation]

);

DECLARE @EndingDateTime [DATETIME2] = SYSDATETIME();

EXEC [Process].[usp_TrackWorkFlow] 'Add BuildingLocation Data',

@WorkFlowStepTableRowCount,

@StartingDateTime,

@EndingDateTime,

@UserAuthorizationKey;

END;

GO
```

Uses

[Location].[BuildingLocation]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[usp_TrackWorkFlow]
[UDT].[Count]
[UDT].[GetBuildingName]
Project3

Used By

[Project3].[Load_Class]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

```
-- Author: Jianhao Jin
-- Procedure Name: Project3.Load_Class
-- Create date: 5/11/2024
-- Description: Procedure to load the data from the [QueensClass-
Schedule].[Uploadfile].[CurrentSemesterCourseOfferings] into [Course].[Class];
-- ------
CREATE PROCEDURE [Project3].[Load Class] @UserAuthorizationKey [UDT].[SurrogateKeyInt]
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @DateAdded [UDT].[Dateof];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[Dateof];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[Dateof];
   SET @StartingDateTime = SYSDATETIME();
   INSERT INTO [Course].[Class] (
      [CourseKey]
     ,[ModeOfInstructionKey]
     ,[Section]
     ,[CourseCode]
     ,[CourseName]
```

```
,[CourseDescription]
      ,[InstructorFullName]
      ,[Day]
      ,[StartTime]
      ,[EndTime]
      ,[NumberEnrolled]
      ,[Limit]
      ,[OverTally]
      ,[ModeOfInstructionName]
      ,[InstructorKey]
      ,[RoomLocationKey]
      , [DateAdded]
      ,[DateOfLastUpdate]
      ,[UserAuthorizationKey])
   SELECT C.CourseKey,
      mo.ModeOfInstructionKey,
       U.Sec as Section,
        U.Code as CourseCode,
        C.CourseName,
        C.CourseDescription,
        CASE WHEN U. [Instructor] = ',' THEN 'N/A' ELSE U. [Instructor] END as Instructor,
        CASE WHEN U. [Day] = '' THEN 'N/A' ELSE U. [Day] END as [Day],
        CASE WHEN U. [Time] = '-' THEN 'N/A' ELSE SUBSTRING (U. [Time], 1, (CHARINDEX ('-
',U.[Time]))-2) End as [StartTime],
        CASE WHEN U. [Time] = '-' THEN 'N/A' ELSE SUBSTRING(U. [Time], CHARINDEX('-', U. [Time])+1,
LEN(U.[Time])) End as [EndTime],
        CAST (U. Enrolled AS INT),
        CAST(U.Limit AS INT),
        Case WHEN CAST(U.Enrolled AS INT) > CAST(U.Limit AS INT) THEN CAST(U.Enrolled AS INT) -
CAST(U.Limit AS INT)
            ELSE 0
       END AS OverTally,
       U.[Mode of Instruction] AS ModeOfInstructionDescription
        , I. InstructorKey
        ,RL.RoomLocationKey
        ,@DateAdded
        ,@DateOfLastUpdate
        ,@UserAuthorizationKey
    FROM
        Uploadfile.CurrentSemesterCourseOfferings AS U
            INNER JOIN
                Course.Course AS C ON U.[Course (hr, crd)] = C.CourseName
                   INNER JOIN
                        Class.ModeOfInstruction AS MO ON U.[Mode of Instruction] = MO.[ModeOf-
InstructionName]
                            INNER JOIN [Department].[Instructor] AS I ON I.InstructorFullName =
U.Instructor
                                INNER JOIN [Location]. [RoomLocation] AS RL ON RL.RoomLocation-
FullName = U.Location
   ORDER BY C.CourseName;
    DECLARE @WorkFlowStepTableRowCount [UDT].[Count];
    SET @WorkFlowStepTableRowCount =
```

[Class].[ModeOfInstruction]

[Course].[Class]

[Course].[Course]

[Department].[Instructor]

[Location].[RoomLocation]

[Uploadfile].[CurrentSemesterCourseOfferings]

[Process].[usp_TrackWorkFlow]

[UDT].[Count]

[UDT].[DateOf]

[UDT].[SurrogateKeyInt]

Project3

Used By

[Project3].[Load_Course]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

```
--Author: Jude Pierre
-- Procedure: [Project3].[Load_Course]
-- Created: 5/10/2024
--Description: Stored procedure to get all of the courses offered at Queens College.
------
CREATE PROCEDURE [Project3].[Load_Course] @UserAuthorizationKey [UDT].[SurrogateKeyInt]
AS
BEGIN
   DECLARE @DateAdded [UDT].[Dateof];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[Dateof];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[Dateof];
   SET @StartingDateTime = SYSDATETIME();
   -- Load course data
   WITH CourseData AS (
       SELECT DISTINCT
           [Course (hr, crd)] AS [CourseName],
           [Description] AS [CourseDescription],
           SUBSTRING([Course (hr, crd)], 0, CHARINDEX(' ', [Course (hr, crd)])) AS [Department-
Name],
           D.[DepartmentKey] AS [DepartmentKey],
           CAST(Substring([Course (hr, crd)], CHARINDEX('(', [Course (hr, crd)])+1,
CHARINDEX(',', [Course (hr, crd)])-CHARINDEX('(', [Course (hr, crd)])-1) AS decimal) AS [NumberOf-
```

```
Hours],
CAST(Substring([Course (hr, crd)], CHARINDEX(',',[Course (hr, crd)])+1, CHARINDEX(')', [Course (hr, crd)])-CHARINDEX(',', [Course (hr, crd)])-1 ) AS decimal) AS [Number-
OfCredits]
        FROM [Uploadfile].[CurrentSemesterCourseOfferings] AS U
             INNER JOIN [Department].[Department] as D
                 ON D.[DepartmentName] = SUBSTRING([Course (hr, crd)], 0, CHARINDEX(' ', [Course
(hr, crd)]))
   )
    INSERT INTO [Course].[Course]
    (UserAuthorizationKey, CourseName, CourseDescription, DepartmentName, DepartmentKey, Number-
OfHours, NumberOfCredits, DateAdded, DateOfLastUpdate)
    SELECT
        @UserAuthorizationKey,
        CD.CourseName,
        CD.CourseDescription,
        CD.DepartmentName,
        CD.DepartmentKey,
        CD.NumberOfHours,
        CD.NumberOfCredits,
        @DateAdded,
        @DateOfLastUpdate
    FROM CourseData AS CD;
    DECLARE @EndingDateTime [UDT].[Dateof]
    SET @EndingDateTime = SYSDATETIME();
    DECLARE @WorkFlowStepTableRowCount [UDT].[Count];
    SET @WorkFlowStepTableRowCount = (
        SELECT COUNT (*) FROM Course.Course
        WHERE CourseKey BETWEEN 11395 AND 13021
    );
    EXEC [Process].[usp TrackWorkFlow] 'Load data into the [Course].[Course] table.',
    @WorkFlowStepTableRowCount, @StartingDateTime, @EndingDateTime, @UserAuthorizationKey
END;
GO
```

[Course].[Course]

Project > LOCALHOST, 13001 > User databases > QueensClass-Schedule > Programmability > Stored Procedures > Project3.Load_-Course

[Department].[Department]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[usp_TrackWorkFlow]
[UDT].[Count]
[UDT].[DateOf]
[UDT].[SurrogateKeyInt]
Project3

Used By

[Project3].[Load_Department]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

```
-- Author: Osvaldo Talavera
-- Procedure: Load_Department
-- Create date: 5/12/2024
-- Description: Loads the Departments into the Department table
-- -----
CREATE PROCEDURE [Project3].[Load_Department]
   @UserAuthorizationKey INT
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @DateAdded [UDT].[DateOf];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[DateOf];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[DateOf];
   SET @StartingDateTime = SYSDATETIME();
   INSERT INTO [Department].[Department] (UserAuthorizationKey, DepartmentName, DateAdded, Date-
OfLastUpdate)
   SELECT DISTINCT
       @UserAuthorizationKey,
       LEFT([Course (hr, crd)], CHARINDEX(' ', [Course (hr, crd)]) - 1) AS DepartmentName,
       @DateAdded,
```

Project > LOCALHOST, 13001 > User databases > QueensClass-Schedule > Programmability > Stored Procedures > Project3.Load_-Department

```
@DateOfLastUpdate
FROM [Uploadfile].[CurrentSemesterCourseOfferings]

DECLARE @WorkFlowStepTableRowCount INT;
SET @WorkFlowStepTableRowCount = (SELECT COUNT(*) FROM [Department].[Department]);
DECLARE @EndingDateTime DATETIME2 = SYSDATETIME();

EXEC [Process].[usp_TrackWorkFlow]
    @WorkFlowStepDescription = 'Loading Department Data',
    @WorkFlowStepTableRowCount = @WorkFlowStepTableRowCount,
    @StartingDateTime = @StartingDateTime,
    @EndingDateTime = @EndingDateTime,
    @UserAuthorizationKey = @UserAuthorizationKey;
END;
GO
```

Uses

[Department].[Department]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[usp_TrackWorkFlow]
[UDT].[DateOf]
Project3

Used By

[Project3].[Load_Department_Instructor]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

```
-- Author: Osvaldo Talavera
-- Procedure: Load Instructor
-- Create date: 5/12/2024
-- Description: Loads the Instructors into the Instructor table
-- -----
CREATE PROCEDURE [Project3].[Load_Department_Instructor]
   @UserAuthorizationKey INT
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @DateAdded [UDT].[DateOf];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[DateOf];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[DateOf];
   SET @StartingDateTime = SYSDATETIME();
   INSERT INTO dbo.Department Instructor(
       DepartmentKey, InstructorKey, UserAuthorizationKey, InstructorFullName, DepartmentName,
DateAdded, DateOfLastUpdate)
   SELECT DISTINCT
       D.DepartmentKey,
       I.InstructorKey,
       @UserAuthorizationKey,
```

```
I.InstructorFullName,
        D.DepartmentName,
        @DateAdded,
        @DateOfLastUpdate
   FROM [Uploadfile].[CurrentSemesterCourseOfferings] AS C
       INNER JOIN [Department].[Department] AS D
           ON LEFT(C.[Course (hr, crd)], CHARINDEX(' ', C.[Course (hr, crd)]) - 1) =
D.DepartmentName
                INNER JOIN Department.Instructor AS I
                    ON C.Instructor = CONCAT(I.InstructorLastName, ', ', I.InstructorFirstName)
   DECLARE @WorkFlowStepTableRowCount INT;
   SET @WorkFlowStepTableRowCount = (SELECT COUNT(*) FROM [dbo].[Department_Instructor]);
   DECLARE @EndingDateTime [UDT].[DateOf];
   SET @EndingDateTime = SYSDATETIME();
   EXEC [Process].[usp TrackWorkFlow]
        @WorkFlowStepDescription = 'Loading Department_Instructor Data',
        @WorkFlowStepTableRowCount = @WorkFlowStepTableRowCount,
        @StartingDateTime = @StartingDateTime,
        @EndingDateTime = @EndingDateTime,
        @UserAuthorizationKey = @UserAuthorizationKey;
END;
GO
```

[dbo].[Department_Instructor]
[Department].[Department]
[Department].[Instructor]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[usp_TrackWorkFlow]
[UDT].[DateOf]
Project3

Used By

[Project3].[Load_Instructor]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

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

```
-- Author: Osvaldo Talavera
-- Procedure: Load Instructor
-- Create date: 5/12/2024
-- Description: Loads the Instructors into the Instructor table
-- -----
CREATE PROCEDURE [Project3].[Load_Instructor]
   @UserAuthorizationKey INT
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @DateAdded [UDT].[DateOf];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[DateOf];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[DateOf];
   SET @StartingDateTime = SYSDATETIME();
   INSERT INTO [Department].[Instructor] (UserAuthorizationKey, InstructorFullName, DateAdded,
DateOfLastUpdate)
   SELECT DISTINCT
       @UserAuthorizationKey,
       COALESCE (
```

```
NULLIF(Instructor, ',')
            'N/A'
        ) AS InstructorFullName,
        @DateAdded,
        @DateOfLastUpdate
    FROM [Uploadfile].[CurrentSemesterCourseOfferings];
   DECLARE @WorkFlowStepTableRowCount [UDT].[Count];
   SET @WorkFlowStepTableRowCount = (SELECT COUNT(*) FROM [Department].[Instructor]);
   DECLARE @EndingDateTime [UDT].[DateOf];
   SET @EndingDateTime = SYSDATETIME();
   EXEC [Process].[usp_TrackWorkFlow]
        @WorkFlowStepDescription = 'Loading Instructor Data',
        @WorkFlowStepTableRowCount = @WorkFlowStepTableRowCount,
        @StartingDateTime = @StartingDateTime,
        @EndingDateTime = @EndingDateTime,
        @UserAuthorizationKey = @UserAuthorizationKey;
END;
GO
```

[Department].[Instructor]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[usp_TrackWorkFlow]
[UDT].[Count]
[UDT].[DateOf]
Project3

Used By

[Project3].[Load_ModeOfInstruction]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

```
-- Author: Faisal Areefin
-- Procedure: Load ModeOfInstruction
-- Create date: 5/11/2024
-- Description: Loads the Modes of Instruction into the ModeOfInstruction table
-- -----
CREATE PROCEDURE [Project3].[Load_ModeOfInstruction]
   @UserAuthorizationKey [UDT].[SurrogateKeyInt]
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @DateAdded [UDT].[DateOf];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[DateOf];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[DateOf];
   SET @StartingDateTime = SYSDATETIME();
   INSERT INTO [Class].[ModeOfInstruction]
       (ModeOfInstructionName, UserAuthorizationKey, DateAdded, DateOfLastUpdate)
   SELECT DISTINCT
       U.[Mode of Instruction] AS ModeOfInstructionName,
       @UserAuthorizationKey,
```

```
@DateAdded,
    @DateOfLastUpdate
FROM [Uploadfile].[CurrentSemesterCourseOfferings] AS U

DECLARE @WorkFlowStepTableRowCount [UDT].[Count];
SET @WorkFlowStepTableRowCount = (SELECT COUNT(*) FROM [Class].[ModeOfInstruction]);
DECLARE @EndingDateTime [UDT].[DateOf];
SET @EndingDateTime = SYSDATETIME();

EXEC [Process].[usp_TrackWorkFlow]
    @WorkFlowStepDescription = 'Loading Instructor Data',
    @WorkFlowStepTableRowCount = @WorkFlowStepTableRowCount,
    @StartingDateTime = @StartingDateTime,
    @EndingDateTime = @EndingDateTime,
    @UserAuthorizationKey = @UserAuthorizationKey;
END;
GO
```

[Class].[ModeOfInstruction]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[usp_TrackWorkFlow]
[UDT].[Count]
[UDT].[DateOf]
[UDT].[SurrogateKeyInt]
Project3

Used By

[Project3].[Load_QueensCourseSchedule]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

```
-- Author: Osvaldo Talavera
-- Procedure: Load QueensCourseSchedule
-- Create date: 5/14/2024
-- Description: Loads data into all tables in QueensCourseSchedule
CREATE PROCEDURE [Project3].[Load QueensCourseSchedule]
AS
BEGIN
   SET NOCOUNT ON;
       DECLARE @StartingDateTime [UDT].[DateOf]
        SET @StartingDateTime = SYSDATETIME();
        EXEC [Project3].[ShowTableStatusRowCount] 'pre-truncation', 5
        EXEC [Process].[TruncateWorkflowStepsTable] 1;
        EXEC [Project3].[DropForeignKeys] 7
        EXEC [Project3].[TruncateData] 1
        EXEC [Project3].[ShowTableStatusRowCount] 'post-truncation', 5
        EXEC [Project3].[AddForeignKeys] 6
        EXEC [Project3].[Load ModeOfInstruction] 3
        EXEC [Project3].[Load_BuildingLocation] 7
        EXEC [Project3].[Load RoomLocation] 6
        EXEC [Project3].[Load Department] 8
        EXEC [Project3].[Load Instructor] 3
        EXEC [Project3].[Load_Department_Instructor] 8
        EXEC [Project3].[Load Course] 2
```

```
[Process].[TruncateWorkflowStepsTable]
[Process].[usp_ShowWorkflowSteps]
[Process].[usp_TrackWorkFlow]
[Project3].[AddForeignKeys]
[Project3].[DropForeignKeys]
[Project3].[Load BuildingLocation]
[Project3].[Load_Class]
[Project3].[Load_Course]
[Project3].[Load_Department]
[Project3].[Load Department Instructor]
[Project3].[Load_Instructor]
[Project3].[Load_ModeOfInstruction]
[Project3].[Load_RoomLocation]
[Project3].[ShowTableStatusRowCount]
[Project3].[TruncateData]
[UDT].[Count]
[UDT].[DateOf]
Project3
```

[Project3].[Load_RoomLocation]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

```
-- Author: Matthew Robles
-- Procedure Name: Project3.Load_RoomLocation
-- Create date: 5/13/2024
-- Description: Load room location
-- -----
CREATE PROCEDURE [Project3].[Load_RoomLocation]
      @UserAuthorizationKey [UDT].[SurrogateKeyInt]
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @DateAdded [UDT].[DateOf];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[DateOf];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[DateOf];
   SET @StartingDateTime = SYSDATETIME();
   INSERT INTO [Location].[RoomLocation]
    (BuildingLocationkey, RoomLocationFullName, UserAuthorizationKey, DateAdded, DateOfLast-
Update)
   SELECT DISTINCT
```

```
BL.BuildingLocationKey AS BuildingLocationkey,
        CSCO.Location,
        @UserAuthorizationKey,
        @DateAdded,
        @DateOfLastUpdate
        FROM [Uploadfile].[CurrentSemesterCourseOfferings] AS CSCO
            INNER JOIN [Location].[BuildingLocation] AS BL
                ON [UDT].[GetBuildingName](CSCO.Location) = BL.BuildingLocationName
        DECLARE @EndingDateTime DATETIME2;
        SET @EndingDateTime = SYSDATETIME();
       DECLARE @WorkFlowStepTableRowCount INT;
        SET @WorkFlowStepTableRowCount = ( SELECT COUNT(*) FROM [Location].[RoomLocation] );
       EXEC [Process].[usp TrackWorkFlow] 'Loads data into [Project3].[RoomLocation]',
                                                    @WorkFlowStepTableRowCount,
                                                    @StartingDateTime,
                                                    @EndingDateTime,
                                                    @UserAuthorizationKey
END;
GO
```

[Location].[BuildingLocation]
[Location].[RoomLocation]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[usp_TrackWorkFlow]
[UDT].[DateOf]
[UDT].[SurrogateKeyInt]
[UDT].[GetBuildingName]
Project3

Used By

[Project3].[ShowTableStatusRowCount]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@TableStatus	varchar(64)	64
@UserAuthorizationKey	SurrogateKeyInt	4

```
-- Author: Jianhao Jin
-- Procedure Name: Project3.ShowTableStatusRowCount
-- Create date: 5/11/2024
-- Description: Procedure to ShowTableStatusRowCount by reading all the Table;
-- -----
CREATE PROCEDURE [Project3].[ShowTableStatusRowCount] @TableStatus VARCHAR(64), @User-
AuthorizationKey [UDT].[SurrogateKeyInt]
AS
BEGIN
   SET NOCOUNT ON;
  DECLARE @DateAdded [UDT].[Dateof];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[Dateof];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[Dateof];
   SET @StartingDateTime = SYSDATETIME();
   DECLARE @WorkFlowStepTableRowCount [UDT].[Count];
   SET @WorkFlowStepTableRowCount = 0;
   SELECT TableStatus = @TableStatus,
          TableName = 'Class.ModeofInstruction',
          [RowCount] = COUNT(*)
   FROM Class.ModeOfInstruction
```

```
UNION ALL
   SELECT TableStatus = @TableStatus,
         TableName = 'Course.Class',
          [RowCount] = COUNT(*)
   FROM Course.Class
   UNION ALL
   SELECT TableStatus = @TableStatus,
           TableName = 'Course.Course',
          [RowCount] = COUNT(*)
   FROM Course.Course
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'dbo.Department Instructor',
          [RowCount] = COUNT(*)
   FROM dbo.Department Instructor
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'DBSecurity.UserAuthorization',
           [RowCount] = COUNT(*)
   FROM DBSecurity.UserAuthorization
   UNTON ATIT
   SELECT TableStatus = @TableStatus,
          TableName = 'Department.Department',
          [RowCount] = COUNT(*)
   FROM Department.Department
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'Department.Instructor',
          [RowCount] = COUNT(*)
   FROM Department.Instructor
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'Location.BuildingLocation',
          [RowCount] = COUNT(*)
   FROM Location.BuildingLocation
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'Location.RoomLocation',
          [RowCount] = COUNT(*)
   FROM Location.RoomLocation
   UNION ALL
   SELECT TableStatus = @TableStatus,
           TableName = 'Process.WorkflowSteps',
          [RowCount] = COUNT(*)
   FROM Process.WorkflowSteps
   DECLARE @EndingDateTime [UDT].[Dateof];
   SET @EndingDateTime = SYSDATETIME();
   EXEC [Process].[usp_TrackWorkFlow] 'Procedure: [Project3].[ShowStatusRowCount] loads data
into [Project3].[ShowTableStatusRowCount]',
```

Project > LOCALHOST, 13001 > User databases > QueensClass-Schedule > Programmability > Stored Procedures > Project3.Show-TableStatusRowCount

@WorkFlowStepTableRowCount,
 @StartingDateTime,
 @EndingDateTime,
 @UserAuthorizationKey;
END;
GO

Uses

[Class].[ModeOfInstruction]

[Course].[Class]

[Course].[Course]

[dbo].[Department_Instructor]

[DBSecurity].[UserAuthorization]

[Department].[Department]

[Department].[Instructor]

[Location].[BuildingLocation]

[Location].[RoomLocation]

[Process].[WorkflowSteps]

[Process].[usp_TrackWorkFlow]

[UDT].[Count]

[UDT].[DateOf]

[UDT].[SurrogateKeyInt]

Project3

Used By

[Project3].[Load_QueensCourseSchedule]

[Project3].[TruncateData]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	4

SQL Script

```
-- Author: Kathy He
-- Procedure Name: Project3.TruncateData
-- Create date: 5/13/2024
-- Description: Procedure to truncate data in all the tables except for Uploadfile.Current-
SemesterCourseOfferings and DBSecurity.UserAuthorization
-- -------
CREATE PROCEDURE [Project3].[TruncateData]
   @UserAuthorizationKey [UDT].[SurrogateKeyInt]
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @DateAdded [UDT].[DateOf];
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate [UDT].[DateOf];
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime [UDT].[DateOf];
   SET @StartingDateTime = SYSDATETIME();
   TRUNCATE TABLE [Class].[ModeOfInstruction];
   TRUNCATE TABLE [Course].[Class];
   TRUNCATE TABLE [Course].[Course];
   TRUNCATE TABLE [dbo].[Department Instructor];
```

```
TRUNCATE TABLE [Department].[Instructor];
TRUNCATE TABLE [Department].[Department];
TRUNCATE TABLE [Location].[BuildingLocation];
TRUNCATE TABLE [Location].[RoomLocation];

DECLARE @EndingDateTime [UDT].[DateOf];
SET @EndingDateTime = SYSDATETIME();

EXEC [Process].[usp_TrackWorkFlow]
    @WorkFlowStepDescription = 'Truncate Data',
    @WorkFlowStepTableRowCount = 0,
    @StartingDateTime = @StartingDateTime,
    @EndingDateTime = @EndingDateTime,
    @UserAuthorizationKey = @UserAuthorizationKey;
END;
GO
```

Uses

[Class].[ModeOfInstruction]

[Course].[Class]

[Course].[Course]

[dbo].[Department Instructor]

[Department].[Department]

[Department].[Instructor]

[Location].[BuildingLocation]

[Location].[RoomLocation]

[Process].[usp_TrackWorkFlow]

[UDT].[DateOf]

[UDT].[SurrogateKeyInt]

Project3

Used By

[Project3].[Load_QueensCourseSchedule]

■ Table-valued Functions

Objects

Name

 $Class.itvf_GetAvailableClasses$

dbo.DatabaseObjects

dbo.JSONHierarchy

🗓 [Class].[itvf_GetAvailableClasses]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@CourseTitle	varchar(50)	50

SQL Script

```
CREATE FUNCTION [Class].[itvf_GetAvailableClasses] (@CourseTitle varchar(50))

RETURNS TABLE

AS

RETURN (

    SELECT C.CourseCode, C.Section, C.CourseName, C.CourseDescription, C.InstructorFullName,
C.Day, CO.NumberOfHours, C.NumberEnrolled, C.Limit

    FROM Course.Class AS C

    INNER JOIN Course.Course AS CO

    ON C.CourseKey = CO.CourseKey

WHERE C.CourseName = @CourseTitle AND C.NumberEnrolled < C.Limit
);

GO
```

Uses

[Course].[Class]

[Course].[Course]

[UDT].[CourseCode]

[UDT].[CourseDesc]

[UDT].[CourseName]

[UDT].[DayOfWeek]

[UDT].[IntValue]

[UDT].[Name]

[UDT].[Section]

Class

🖪 [dbo].[DatabaseObjects]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@ListOfObjectIDs	varchar(max)	max

SQL Script

```
create function [dbo].[DatabaseObjects]
   Summary: >
    lists out the full names, schemas and (where appropriate)
     the owner of the object.
   Author: PhilFactor
   Date: 10/9/2017
   Examples:
      - Select * from dbo.DatabaseObjects('2123154609,960722475,1024722703')
    A table with the id, name of object and so on.
   @ListOfObjectIDs varchar(max)
returns table
--WITH ENCRYPTION|SCHEMABINDING, ..
as
return
   select object id
        , schema name(schema id) + '.' + coalesce(object name(parent object id) + '.', '') +
name as name
   from sys.objects as ob
       inner join openjson(N'[' + @ListOfObjectIDs + N']')
          on convert(int, Value) = ob.object id
);
```

[dbo].[JSONHierarchy]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@JSONData	varchar(max)	max
@Parent_object_ID	int	4
@MaxObject_id	int	4
@type	int	4

SQL Script

```
create function [dbo].[JSONHierarchy]
   @JSONData varchar(max)
  , @Parent object ID int = null
 , @MaxObject id int = 0
  , @type int = null
returns @ReturnTable table
   -- https://www.red-gate.com/simple-talk/blogs/consuming-hierarchical-json-documents-sql-
server-using-openjson/?utm source=simpletalk&utm medium=pubemail&utm content=20171010-
slota1&utm term=simpletalkmain
   Element_ID int identity(1, 1) primary key /* internal surrogate primary key gives the order
of parsing and the list order */
 , SequenceNo int null
                                             /* the sequence number in a list */
                                             /* if the element has a parent then it is in this
  , Parent ID int
column. The document is the ultimate parent, so you can get the structure from recursing from the
document */
  , Object ID int
                                             /* each list or object has an object id. This ties
all elements to a parent. Lists are treated as objects here */
 , Name nvarchar(2000)
                                            /* the name of the object */
  , StringValue nvarchar(max) not null
                                            /*the string representation of the value of the
element. */
  , ValueType varchar(10) not null
                                            /* the declared type of the value represented as a
string in StringValue*/
```

```
begin
   --the types of JSON
   declare @null int = 0
         , @string int = 1
         , @int int = 2
         , @boolean int = 3
         , @object int = 5;
   declare @OpenJSONData table
      sequence int identity(1, 1)
     , [key] varchar(200)
     , Value varchar(max)
     , type int
   );
   declare @key
                   varchar(200)
       , @Value varchar(max)
         , @Thetype int
         , @ii
                    int
                  int
         , @iiMax
         , @NewObject int
         , @firstchar char(1);
   insert into @OpenJSONData
       [key]
     , Value
     , type
   select [Key]
       , Value
        , Type
   from openjson(@JSONData);
   select @ii = 1
        , @iiMax = scope identity();
   select @firstchar
       = --the first character to see if it is an object or an array
       substring(
                  @JSONData
                  , patindex(
                              '%[^' + char(0) + '- ' + char(160) + ']%'
                             , ' ' + @JSONData + '!!' collate SQL_Latin1_General_CP850_BIN
                           ) - 1
                 , 1
               );
   if @type is null
      and @firstchar in ( '[', '{')
       insert into @ReturnTable
```

```
SequenceNo
      , Parent ID
      , Object ID
      , Name
      , StringValue
      , ValueType
    select 1
         , null
         , 1
         , '-1
         , 11
         , case @firstchar
               when '[' then
                  'array'
               else
                  'object'
           end:
    select @type
                             = case @firstchar
                                   when '[' then
                                       @array
                                   else
                                       @object
                               end
         , @Parent_object_ID = 1
         , @MaxObject_id = coalesce(@MaxObject_id, 1) + 1;
end;
while (@ii <= @iiMax)</pre>
begin
    --OpenJSON renames list items with 0-nn which confuses the consumers of the table
   select @key = case
                          when [key] like '[0-9]%' then
                          else
                             [key]
                      end
         , @Value = Value
         , @Thetype = type
    from @OpenJSONData
    where sequence = @ii;
   if @Thetype in ( @array, @object ) --if we have been returned an array or object
   begin
        select @MaxObject id = coalesce(@MaxObject id, 1) + 1;
        --just in case we have an object or array returned
        insert into @ReturnTable --record the object itself
            SequenceNo
          , Parent ID
          , Object ID
          , Name
          , StringValue
```

```
, ValueType
   select @ii
        , @Parent_object_ID
        , @MaxObject_id
        , @key
        , 11
         , case @Thetype
              when @array then
                 'array'
              else
                  'object'
           end;
   insert into @ReturnTable --and return all its children
       SequenceNo
     , Parent_ID
     , Object_ID
     , [Name]
     , StringValue
     , ValueType
   select SequenceNo
        , Parent_ID
        , Object ID
        , [Name]
        , StringValue
        , ValueType
   from dbo.JSONHierarchy(@Value, @MaxObject_id, @MaxObject_id, @type);
   select @MaxObject id = max(Object ID) + 1
   from @ReturnTable;
end:
else
   insert into @ReturnTable
       SequenceNo
     , Parent ID
     , Object_ID
     , Name
     , StringValue
     , ValueType
   select @ii
        , @Parent_object_ID
        , null
        , @key
        , @Value
         , case @Thetype
              when @string then
                  'string'
              when @null then
```

Scalar-valued Functions

Objects

Name	
UDT.GetBuildingName	
LIDT GetRoomNumber	

[UDT].[GetBuildingName]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Location	varchar(50)	50

SQL Script

```
CREATE FUNCTION [UDT].[GetBuildingName] (@Location varchar(50))

RETURNS nvarchar(50)

AS

BEGIN

DECLARE @RoomLocation nvarchar(50);

IF @Location = '' SET @RoomLocation = 'N/A'

ELSE SET @RoomLocation = SUBSTRING(@Location, 1, CHARINDEX('', @Location) - 1)

RETURN @RoomLocation

END;

GO
```

Uses

UDT

Used By

[Location].[RoomLocation]
[Project3].[Load_BuildingLocation]
[Project3].[Load_RoomLocation]

[UDT].[GetRoomNumber]

Properties

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

Parameters

Name	Data Type	Max Length (Bytes)
@Location	varchar(50)	50

SQL Script

```
CREATE FUNCTION [UDT].[GetRoomNumber] (@Location varchar(50))

RETURNS nvarchar(10)

AS

BEGIN

DECLARE @RoomNumber nvarchar(10);

IF @Location = '' SET @RoomNumber = 'N/A'

ELSE SET @RoomNumber = SUBSTRING(@Location, CHARINDEX('', @Location)+1, LEN(@Location)) -
- start at index of space, go until end of string

RETURN @RoomNumber

END;

GO
```

Uses

UDT

Used By

[Location].[RoomLocation]

" User-Defined Data Types

Objects

Name
UDT.BuildingLocation
UDT.ClassTime
UDT.Count
UDT.CourseCode
UDT.CourseDesc
UDT.CourseName
UDT.Credit
UDT.DateOf
UDT.DateOfWeek
UDT.DayOfWeek
UDT.DepartmentName
UDT.Description
UDT.Hour
UDT.IndividualProject
UDT.IntValue
UDT.Location
UDT.ModeOfInstruction
UDT.Name
UDT.NumericValue
UDT.RoomLocation
UDT.RoomNumber
UDT.Section
UDT.SurrogateKeyInt
UDT.TimeOfDay

[UDT].[BuildingLocation]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[BuildingLocation] FROM nvarchar (50) NOT NULL
GO

Uses

UDT

[UDT].[ClassTime]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[ClassTime] FROM nvarchar (50) NULL
GO

Uses

UDT

Used By

[Course].[Class]
[DBSecurity].[UserAuthorization]
[Process].[WorkflowSteps]

[UDT].[Count]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	int
Length	4

SQL Script

CREATE TYPE [UDT].[Count] FROM int NULL
GO

Uses

UDT

Used By

[Course].[Class]

[Process].[WorkflowSteps]

[Process].[usp_TrackWorkFlow]

[Project3].[AddForeignKeys]

[Project3].[DropForeignKeys]

[Project3].[Load_BuildingLocation]

[Project3].[Load_Class]

[Project3].[Load_Course]

[Project3].[Load_Instructor]

[Project3].[Load_ModeOfInstruction]

[Project3].[Load_QueensCourseSchedule]

[Project3].[ShowTableStatusRowCount]

[UDT].[CourseCode]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	varchar
Length	50

SQL Script

CREATE TYPE [UDT].[CourseCode] FROM varchar (50) NULL
GO

Uses

UDT

Used By

[Course].[Class]

[UDT].[CourseDesc]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	varchar
Length	50

SQL Script

CREATE TYPE [UDT].[CourseDesc] FROM varchar (50) NULL
GO

Uses

UDT

Used By

[Course].[Class]

[Course].[Course]

[UDT].[CourseName]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	varchar
Length	50

SQL Script

CREATE TYPE [UDT].[CourseName] FROM varchar (50) NULL
GO

Uses

UDT

Used By

[Course].[Class]

[Course].[Course]

[UDT].[Credit]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	numeric
Length	9

SQL Script

CREATE TYPE [UDT].[Credit] FROM numeric (18, 0) NULL
GO

Uses

UDT

Used By

[Course].[Course]

[UDT].[DateOf]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	datetime2
Length	8

SQL Script

CREATE TYPE [UDT].[DateOf] FROM datetime2 NOT NULL
GO

Uses

UDT

Used By

[Class].[ModeOfInstruction]

[Course].[Class]

[Course].[Course]

[dbo].[Department_Instructor]

[DBSecurity].[UserAuthorization]

[Department].[Department]

[Department].[Instructor]

[Location].[BuildingLocation]

[Location].[RoomLocation]

[Process].[WorkflowSteps]

[Process].[usp_TrackWorkFlow]

[Project3].[AddForeignKeys]

[Project3].[DropForeignKeys]

[Project3].[Load_Class]

[Project3].[Load_Course]

[Project3].[Load_Department]

[Project3].[Load_Department_Instructor]

[Project3].[Load_Instructor]

[Project3].[Load_ModeOfInstruction]

[Project3].[Load_QueensCourseSchedule]

[Project3].[Load_RoomLocation]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

[UDT].[DateOfWeek]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[DateOfWeek] FROM nvarchar (50) NOT NULL
GO

Uses

UDT

[UDT].[DayOfWeek]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[DayOfWeek] FROM nvarchar (50) NOT NULL
GO

Uses

UDT

Used By

[Course].[Class]

[UDT].[DepartmentName]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[DepartmentName] FROM nvarchar (50) NULL
GO

Uses

UDT

Used By

[Course].[Course]

[Department].[Department]

[UDT].[Description]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[Description] FROM nvarchar (50) NOT NULL
GO

Uses

UDT

Used By

[Process].[WorkflowSteps]
[Process].[usp_TrackWorkFlow]

[UDT].[Hour]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	numeric
Length	9

SQL Script

CREATE TYPE [UDT].[Hour] FROM numeric (18, 0) NULL
GO

Uses

UDT

Used By

[Course].[Course]

[UDT].[IndividualProject]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[IndividualProject] FROM nvarchar (50) NULL
GO

Uses

UDT

Used By

[DBSecurity].[UserAuthorization]

[UDT].[IntValue]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	int
Length	4

SQL Script

CREATE TYPE [UDT].[IntValue] FROM int NULL
GO

Uses

UDT

Used By

[Course].[Class]

[UDT].[Location]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[Location] FROM nvarchar (50) NULL
GO

Uses

UDT

Used By

[Location].[BuildingLocation]

[UDT].[ModeOfInstruction]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[ModeOfInstruction] FROM nvarchar (50) NOT NULL
GO

Uses

UDT

Used By

[Class].[ModeOfInstruction]

[Course].[Class]

" [UDT].[Name]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[Name] FROM nvarchar (50) NULL
GO

Uses

UDT

Used By

[Course].[Class]
[dbo].[Department_Instructor]
[DBSecurity].[UserAuthorization]
[Department].[Instructor]
[Class].[itvf_GetAvailableClasses]

[UDT].[NumericValue]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	numeric
Length	9

SQL Script

CREATE TYPE [UDT].[NumericValue] FROM numeric (18, 0) NULL
GO

Uses

UDT

[UDT].[RoomLocation]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	50

SQL Script

CREATE TYPE [UDT].[RoomLocation] FROM nvarchar (50) NOT NULL
GO

Uses

UDT

Used By

[Location].[RoomLocation]

[UDT].[RoomNumber]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	10

SQL Script

CREATE TYPE [UDT].[RoomNumber] FROM nvarchar (10) NULL
GO

Uses

UDT

[UDT].[Section]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	varchar
Length	50

SQL Script

CREATE TYPE [UDT].[Section] FROM varchar (50) NULL
GO

Uses

UDT

Used By

[Course].[Class]

 $[Class].[itvf_GetAvailableClasses]$

[UDT].[SurrogateKeyInt]

Properties

Property	Value
Nullability	NOT NULL
Base Type Name	int
Length	4

SQL Script

CREATE TYPE [UDT].[SurrogateKeyInt] FROM int NOT NULL
GO

Uses

UDT

Used By

[Class].[ModeOfInstruction]

[Course].[Class]

[Course].[Course]

[dbo].[Department_Instructor]

[DBSecurity].[UserAuthorization]

[Department].[Department]

[Department].[Instructor]

[Location].[BuildingLocation]

[Location].[RoomLocation]

[Process].[WorkflowSteps]

[Process]. [Truncate Workflow Steps Table]

[Process].[usp_ShowWorkflowSteps]

[Process].[usp_TrackWorkFlow]

[Project3].[AddForeignKeys]

[Project 3]. [Drop Foreign Keys]

[Project3].[Load_Class]

[Project3].[Load_Course]

[Project3].[Load_ModeOfInstruction]

[Project3].[Load_RoomLocation]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

[UDT].[TimeOfDay]

Properties

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	10

SQL Script

CREATE TYPE [UDT].[TimeOfDay] FROM nvarchar (10) NULL
GO

Uses

UDT

1 Users

Objects

Name
BiStudent
dbo
EC3\thehitman
guest
student



Property	Value
Туре	SqlUser
Default Schema	dbo

Database Level Permissions

Туре	Action
CONNECT	Grant

SQL Script

CREATE USER [BiStudent] WITHOUT LOGIN GO



Property	Value
Туре	SqlUser
Login Name	sa
Default Schema	dbo

Database Level Permissions

Туре	Action
CONNECT	Grant

SQL Script

GO



Property	Value
Туре	WindowsUser
Login Name	EC3\thehitman
Default Schema	dbo

Database Level Permissions

Туре	Action
CONNECT	Grant

SQL Script

```
IF NOT EXISTS (SELECT * FROM master.dbo.syslogins WHERE loginname = N'EC3\thehitman')
CREATE LOGIN [EC3\thehitman] FROM WINDOWS
GO
CREATE USER [EC3\thehitman] FOR LOGIN [EC3\thehitman]
GO
```



Property	Value
Туре	SqlUser
Default Schema	guest

SQL Script

GO



Property	Value
Туре	SqlUser
Default Schema	dbo

Database Level Permissions

Туре	Action
CONNECT	Grant

SQL Script

CREATE USER [student] WITHOUT LOGIN 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

Members

- BiStudent
- student

SQL Script

```
ALTER ROLE [db_datareader] ADD MEMBER [BiStudent]

GO

ALTER ROLE [db_datareader] ADD MEMBER [student]

GO
```

Uses

BiStudent student

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

Property	Value
Owner	dbo

Members

• EC3\thehitman

SQL Script

ALTER ROLE [db_owner] ADD MEMBER [EC3\thehitman] GO

Uses

EC3\thehitman

♣ db_securityadmin

Properties

Property	Value
Owner	dbo

♣ public

Properties

Property	Value
Owner	dbo

△ Schemas

Objects

Name
Class
Course
DBSecurity
Department
GroupNameProject3
Location
Process
Project3
UDT
Uploadfile
Utils
YourLastName

⚠ Class

Properties

Property	Value
Owner	dbo

SQL Script

CREATE SCHEMA [Class]
AUTHORIZATION [dbo]
GO

Used By

[Class].[ModeOfInstruction] [Class].[itvf_GetAvailableClasses]

△ Course

Properties

Property	Value
Owner	dbo

SQL Script

CREATE SCHEMA [Course]
AUTHORIZATION [dbo]
GO

Used By

[Course].[Class] [Course].[Course]

△ DBSecurity

Properties

Property	Value
Owner	dbo

SQL Script

CREATE SCHEMA [DBSecurity]
AUTHORIZATION [dbo]
GO

Used By

[DBSecurity].[UserAuthorization]

△ Department

Properties

Property	Value
Owner	dbo

SQL Script

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

Used By

[Department].[Department] [Department].[Instructor]

Properties

Property	Value
Owner	dbo

SQL Script

CREATE SCHEMA [GroupNameProject3]
AUTHORIZATION [dbo]
GO

△ Location

Properties

Property	Value
Owner	dbo

SQL Script

CREATE SCHEMA [Location]
AUTHORIZATION [dbo]
GO

Used By

[Location].[BuildingLocation] [Location].[RoomLocation]

⚠ Process

Properties

Property	Value
Owner	dbo

SQL Script

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

Used By

[Process].[WorkflowSteps]
[Process].[TruncateWorkflowStepsTable]
[Process].[usp_ShowWorkflowSteps]
[Process].[usp_TrackWorkFlow]

♣ Project3

Properties

Property	Value
Owner	dbo

SQL Script

```
CREATE SCHEMA [Project3]
AUTHORIZATION [dbo]
GO
```

Used By

[Project3].[AddForeignKeys]

[Project3].[DropForeignKeys]

[Project3].[Load_BuildingLocation]

[Project3].[Load_Class]

[Project3].[Load_Course]

[Project3].[Load_Department]

[Project3].[Load_Department_Instructor]

[Project3].[Load_Instructor]

[Project3].[Load_ModeOfInstruction]

[Project3].[Load_QueensCourseSchedule]

[Project3].[Load_RoomLocation]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

∴ UDT

Properties

Property	Value
Owner	dbo

SQL Script

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

Used By

[UDT].[BuildingLocation]

[UDT].[ClassTime]

[UDT].[Count]

[UDT].[CourseCode]

[UDT].[CourseDesc]

[UDT].[CourseName]

[UDT].[Credit]

[UDT].[DateOf]

[UDT].[DateOfWeek]

[UDT].[DayOfWeek]

[UDT].[DepartmentName]

[UDT].[Description]

[UDT].[Hour]

[UDT].[IndividualProject]

[UDT].[IntValue]

[UDT].[Location]

[UDT].[ModeOfInstruction]

[UDT].[Name]

[UDT].[NumericValue]

[UDT].[RoomLocation]

[UDT].[RoomNumber]

[UDT].[Section]

[UDT].[SurrogateKeyInt]

[UDT].[TimeOfDay]

[UDT].[GetBuildingName]

[UDT].[GetRoomNumber]

♣ Uploadfile

Properties

Property	Value
Owner	dbo

SQL Script

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

Used By

[Upload file]. [Current Semester Course Offerings]



Property	Value
Owner	dbo

SQL Script

CREATE SCHEMA [Utils]
AUTHORIZATION [dbo]
GO

Used By

 $[Utils]. [uvw_FindColumnDefinitionPlusDefaultAndCheckConstraint] \\$

Properties

Property	Value
Owner	dbo

SQL Script

CREATE SCHEMA [YourLastName]
AUTHORIZATION [dbo]
GO