# localhost,13001

# QueensClassSchedule

Server localhost, 13001

Author chang

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# **■** localhost,13001

### Databases (1)

• ■ QueensClassSchedule

### **Server Properties**

Property	Value
Product	Microsoft SQL Server
Version	15.0.4198.2
Language	English
Platform	NT x64
Edition	Developer Edition (64-bit)
Engine Edition	3 (Enterprise)
Processors	4
OS Version	6.2 (9200)
Physical Memory	10198
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

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Databases (1)

• QueensClassSchedule

# **■ QueensClassSchedule Database**

### **Database Properties**

Property	Value
SQL Server Version	Max
Compatibility Level	SQL Server 2016
Last backup time	05/10/2022
Last log backup time	-
Creation date	May 10 2022
Users	7
Database Encryption Enabled	False
Database Encryption Algorithm	None
Database size	144.00 MB
Unallocated space	3.98 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
Log reuse wait	NOTHING
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	8.00 MB	unlimited	64.00 MB	/var/opt/mssql/data/QueensClassSchedule- CurrentSemester.mdf
QC2019_log	Log	136.00 MB	2048.00 GB	64.00 MB	/var/opt/mssql/log/QueensClassSchedule- CurrentSemester_0.ldf

# **■ Tables**

### Objects

Name
Data.Building
Data.BuildingRoom
Data.Class
Data.Course
Data.Department
Data.Instructor
Data.ModeOfInstruction
DbSecurity.UserAuthorization
Process.WorkflowSteps
Uploadfile.CurrentSemesterCourseOfferings

# ■ [Data].[Building]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	0
Created	4:44:44 AM Tuesday, May 10, 2022
Last Modified	4:44:44 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PKC	BuildingId	[Udt].[SurrogateKeyInt]	2	NOT NULL	1 - 1	
	BuildingName	[Udt].[Name]	70	NOT NULL		(N'TBD')
	BuildingAbbreviation	[Udt].[Abbreviation]	12	NOT NULL		(N'TBD')
	DateAdded	[Udt].[GeneralDateTime]	8	NOT NULL		(sysdatetime( ))
	DateOfLastUpdated	[Udt].[GeneralDateTime]	8	NOT NULL		(sysdatetime( ))

### Indexes

Key	Name	Key Columns	Unique
PK	PK_Building	BuildingId	True

```
CREATE TABLE [Data].[Building]

(
[BuildingId] [Udt].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),

[BuildingName] [Udt].[Name] NOT NULL CONSTRAINT [DF_Building_BuildingName] DEFAULT
(N'TBD'),

[BuildingAbbreviation] [Udt].[Abbreviation] NOT NULL CONSTRAINT [DF_Building_Building-Abbreviation] DEFAULT (N'TBD'),

[DateAdded] [Udt].[GeneralDateTime] NOT NULL CONSTRAINT [Building_UserAuthorization_-
DateAdded] DEFAULT (sysdatetime()),

[DateOfLastUpdated] [Udt].[GeneralDateTime] NOT NULL CONSTRAINT [Building_User-Authorization_DateOfLastUpdated] DEFAULT (sysdatetime())

) ON [PRIMARY]

GO

ALTER TABLE [Data].[Building] ADD CONSTRAINT [PK Building] PRIMARY KEY CLUSTERED
```

([BuildingId]) ON [PRIMARY]
GO

### Uses

[Udt].[Abbreviation]
[Udt].[GeneralDateTime]

[Udt].[Name]

[Udt].[SurrogateKeyInt]

Data

### **Used By**

[Data].[BuildingRoom]

[Project3].[LoadBuilding]

[Project3].[LoadBuildingRoom]

[Project3].[LoadClass]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

### [Data].[BuildingRoom]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	0
Created	4:44:44 AM Tuesday, May 10, 2022
Last Modified	4:44:44 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PKC	BuildingRoomld	[Udt].[SurrogateKeyInt]	2	NOT NULL	1 - 1	
FK	BuildingId	[Udt].[SurrogateKeyInt]	2	NOT NULL		
	RoomCode	[Udt].[RoomCode]	10	NOT NULL		(NULL)
	DateAdded	[Udt].[GeneralDateTime]	8	NOT NULL		(sysdatetime()
	DateOfLastUpdated	[Udt].[GeneralDateTime]	8	NOT NULL		(sysdatetime()

### Indexes

Key	Name	Key Columns	Unique
PKP C	PK_Room	BuildingRoomld	True

### Foreign Keys

Name	Columns
FK_BuildingRoom_Building	BuildingId->[Data].[Building].[BuildingId]

```
CREATE TABLE [Data].[BuildingRoom]

(
[BuildingRoomId] [Udt].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),

[BuildingId] [Udt].[SurrogateKeyInt] NOT NULL,

[RoomCode] [Udt].[RoomCode] NOT NULL CONSTRAINT [DF_BuildingRoom_RoomCode] DEFAULT (NULL),

[DateAdded] [Udt].[GeneralDateTime] NOT NULL CONSTRAINT [Room_UserAuthorization_Date-
```

```
Added] DEFAULT (sysdatetime()),

[DateOfLastUpdated] [Udt].[GeneralDateTime] NOT NULL CONSTRAINT [Room_User-Authorization_DateOfLastUpdated] DEFAULT (sysdatetime())

) ON [PRIMARY]

GO

ALTER TABLE [Data].[BuildingRoom] ADD CONSTRAINT [PK_Room] PRIMARY KEY CLUSTERED ([BuildingRoomId]) ON [PRIMARY]

GO

ALTER TABLE [Data].[BuildingRoom] ADD CONSTRAINT [FK_BuildingRoom_Building] FOREIGN KEY ([BuildingId]) REFERENCES [Data].[Building] ([BuildingId])

GO
```

[Data].[Building]

[Udt].[GeneralDateTime]

[Udt].[RoomCode]

[Udt].[SurrogateKeyInt]

Data

### **Used By**

[Data].[Class]

[Project3].[LoadBuildingRoom]

[Project3].[LoadClass]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

# **Ⅲ** [Data].[Class]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	0
Created	4:44:44 AM Tuesday, May 10, 2022
Last Modified	4:44:44 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity	Default
PK	ClassKey	[Udt].[SurrogateKeyInt]	2	NOT NULL	1 - 1	
	Section	[Udt].[Section]	50	NULL allowed		
FK	CourseCode	[Udt].[CourseCode]	50	NULL allowed		
	CourseName	[Udt].[CourseName]	50	NULL allowed		
	CourseDescription	[Udt].[CourseDesc]	50	NULL allowed		
F🎾	InstructorId	[Udt].[SurrogateKeyInt]	2	NOT NULL		
	InstructorFullName	[Udt].[Name]	70	NOT NULL		
	Day	[Udt].[DayOfWeek]	100	NULL allowed		
	Hours	[Udt].[IntValue]	100	NULL allowed		
	NumberEnrolled	[Udt].[IntValue]	100	NULL allowed		
	Limit	[Udt].[IntValue]	100	NULL allowed		
	OverTally	[Udt].[Count]	4	NULL allowed		
FK	ModeOfInstruction	[Udt].[ModeOfInstruction]	100	NOT NULL		('TBA')
FK	ClassRoomld	[Udt].[SurrogateKeyInt]	2	NOT NULL		
	DateAdded	[Udt].[DateAdded]	3	NULL allowed		(sysdatetime()
	DateOfLastUpdate	[Udt].[DateAdded]	3	NOT NULL		(sysdatetime()

### Indexes

Key	Name	Key Columns	Unique
PKC	PKClass94BC1938DA616B5F	ClassKey	True

### Foreign Keys

Name	Columns
FK_Class_BuildingRoom	ClassRoomId->[Data].[BuildingRoom].[BuildingRoomId]
FK_Class_Course	CourseCode->[Data].[Course].[CourseCode]
FK_Class_Instructor	InstructorId->[Data].[Instructor].[InstructorId]
FK_Class_ModeOfInstruction	ModeOfInstruction->[Data].[ModeOfInstruction].[Mode of Instruction]

```
CREATE TABLE [Data].[Class]
[ClassKey] [Udt].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),
[Section] [Udt].[Section] NULL,
[CourseCode] [Udt].[CourseCode] NULL,
[CourseName] [Udt].[CourseName] NULL,
[CourseDescription] [Udt].[CourseDesc] NULL,
[InstructorId] [Udt].[SurrogateKeyInt] NOT NULL,
[InstructorFullName] [Udt].[Name] NOT NULL,
[Day] [Udt].[DayOfWeek] NULL,
[Hours] [Udt].[IntValue] NULL,
[NumberEnrolled] [Udt].[IntValue] NULL,
[Limit] [Udt].[IntValue] NULL,
[OverTally] [Udt].[Count] NULL,
[ModeOfInstruction] [Udt].[ModeOfInstruction] NOT NULL CONSTRAINT [DF Class ModeOf-
Ins 1D7B6025] DEFAULT ('TBA'),
[ClassRoomId] [Udt].[SurrogateKeyInt] NOT NULL,
[DateAdded] [Udt].[DateAdded] NULL CONSTRAINT [DF Class DateAdded 1E6F845E] DEFAULT
(sysdatetime()),
[DateOfLastUpdate] [Udt].[DateAdded] NOT NULL CONSTRAINT [DF Class DateOf-
Las 1F63A897] DEFAULT (sysdatetime())
) ON [PRIMARY]
ALTER TABLE [Data].[Class] ADD CONSTRAINT [PK Class 94BC1938DA616B5F] PRIMARY KEY
CLUSTERED ([ClassKey]) ON [PRIMARY]
ALTER TABLE [Data].[Class] ADD CONSTRAINT [FK Class BuildingRoom] FOREIGN KEY ([Class-
RoomId]) REFERENCES [Data].[BuildingRoom] ([BuildingRoomId])
ALTER TABLE [Data].[Class] ADD CONSTRAINT [FK_Class_Course] FOREIGN KEY ([CourseCode])
REFERENCES [Data].[Course] ([CourseCode])
ALTER TABLE [Data].[Class] ADD CONSTRAINT [FK Class Instructor] FOREIGN KEY
([InstructorId]) REFERENCES [Data].[Instructor] ([InstructorId])
ALTER TABLE [Data].[Class] ADD CONSTRAINT [FK Class ModeOfInstruction] FOREIGN KEY
```

```
([ModeOfInstruction]) REFERENCES [Data].[ModeOfInstruction] ([Mode of Instruction])

GO
```

[Data].[BuildingRoom]

[Data].[Course]

[Data].[Instructor]

[Data].[ModeOfInstruction]

[Udt].[Count]

[Udt].[CourseCode]

[Udt].[CourseDesc]

[Udt].[CourseName]

[Udt].[DateAdded]

[Udt].[DayOfWeek]

[Udt].[IntValue]

[Udt].[ModeOfInstruction]

[Udt].[Name]

[Udt].[Section]

[Udt].[SurrogateKeyInt]

Data

### **Used By**

[Project3].[LoadClass]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

# ■ [Data].[Course]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	0
Created	4:44:44 AM Tuesday, May 10, 2022
Last Modified	4:44:44 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
PK	CourseCode	[Udt].[CourseCode]	50	NOT NULL	
FK	CourseDepartment	[Udt].[DepartmentName]	80	NOT NULL	
	CourseName	[Udt].[CourseName]	50	NULL allowed	
	CourseDescription	[Udt].[CourseDesc]	50	NULL allowed	
	DateAdded	[Udt].[Dateof]	8	NULL allowed	(sysdatetime())
	DateOfLastUpdate	[Udt].[Dateof]	8	NULL allowed	(sysdatetime())

### Indexes

Key	Name	Key Columns	Unique
PKC	PKCourseFC00E001157AF3F9	CourseCode	True

### Foreign Keys

Name	Columns
FK_Course_Department	CourseDepartment->[Data].[Department].[DepartmentName]

```
CREATE TABLE [Data].[Course]

(
[CourseCode] [Udt].[CourseCode] NOT NULL,

[CourseDepartment] [Udt].[DepartmentName] NOT NULL,

[CourseName] [Udt].[CourseName] NULL,

[CourseDescription] [Udt].[CourseDesc] NULL,

[DateAdded] [Udt].[Dateof] NULL CONSTRAINT [DF_Course_DateAdde_18B6AB08] DEFAULT
```

```
(sysdatetime()),
[DateOfLastUpdate] [Udt].[Dateof] NULL CONSTRAINT [DF_Course_DateOfLa_19AACF41]
DEFAULT (sysdatetime())
) ON [PRIMARY]
GO
ALTER TABLE [Data].[Course] ADD CONSTRAINT [PK_Course_FC00E001157AF3F9] PRIMARY KEY
CLUSTERED ([CourseCode]) ON [PRIMARY]
GO
ALTER TABLE [Data].[Course] ADD CONSTRAINT [FK_Course_Department] FOREIGN KEY ([Course_Department]) REFERENCES [Data].[Department] ([DepartmentName])
GO
```

[Data].[Department]

[Udt].[CourseCode]

[Udt].[CourseDesc]

[Udt].[CourseName]

[Udt].[Dateof]

[Udt].[DepartmentName]

Data

### **Used By**

[Data].[Class]

[Project3].[LoadCourse]

[Project 3]. [Show Table Status Row Count]

[Project3].[TruncateData]

### **I** [Data].[Department]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	0
Created	4:44:44 AM Tuesday, May 10, 2022
Last Modified	4:44:44 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullabilit y	Identity	Default
PK# C	DepartmentKey	[Udt].[SurrogateKeyInt]	2	NOT NULL	1 - 1	
	DepartmentAbbreviation	[Udt].[Abbreviation]	12	NULL allowed		
#	DepartmentName	[Udt].[DepartmentName]	80	NOT NULL		
	DateAdded	[Udt].[DateAdded]	3	NOT NULL		(sysdatetim e())
	DateOfLastUpdate	[Udt].[DateAdded]	3	NOT NULL		(sysdatetim e())

### Indexes

Key	Name	Key Columns	Unique
PKP C	PKDepartme18D372EA926A941F	DepartmentKey	True
	UQDepartmeD949CC34621F4044	DepartmentName	True

```
CREATE TABLE [Data].[Department]

(
[DepartmentKey] [Udt].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),

[DepartmentAbbreviation] [Udt].[Abbreviation] NULL,

[DepartmentName] [Udt].[DepartmentName] NOT NULL,

[DateAdded] [Udt].[DateAdded] NOT NULL CONSTRAINT [DF_Departmen_DateA_13F1F5EB]

DEFAULT (sysdatetime()),

[DateOfLastUpdate] [Udt].[DateAdded] NOT NULL CONSTRAINT [DF_Departmen_Date-O_14E61A24] DEFAULT (sysdatetime())

) ON [PRIMARY]
```

```
ALTER TABLE [Data].[Department] ADD CONSTRAINT [PK_Departme_18D372EA926A941F] PRIMARY KEY CLUSTERED ([DepartmentKey]) ON [PRIMARY]

GO
ALTER TABLE [Data].[Department] ADD CONSTRAINT [UQ_Departme_D949CC34621F4044] UNIQUE NONCLUSTERED ([DepartmentName]) ON [PRIMARY]

GO
```

[Udt].[Abbreviation]

[Udt].[DateAdded]

[Udt].[DepartmentName]

[Udt].[SurrogateKeyInt]

Data

### **Used By**

[Data].[Course]

[Project3].[LoadCourse]

[Project3].[LoadDepartment]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

# **■** [Data].[Instructor]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	0
Created	4:44:44 AM Tuesday, May 10, 2022
Last Modified	4:44:44 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	InstructorId	[Udt].[SurrogateKeyInt]	2	NOT NULL	1 - 1
	FirstName	[Udt].[Name]	70	NOT NULL	
	LastName	[Udt].[Name]	70	NOT NULL	
	FullName	[Udt].[Name]	70	NOT NULL	

### Indexes

Key	Name	Key Columns	Unique
PK	PKInstruct9D010A9BFDE5BB1E	InstructorId	True

### **Check Constraints**

Name	On Column	Constraint
CK_FirstName	FirstName	(NOT [FirstName] like '%[^A-z"]%')
CK_FullName		([FullName]=(([LastName]+', ')+[FirstName]))
CK_LastName	LastName	(NOT [LastName] like '%[^A-z"]%')

```
CREATE TABLE [Data].[Instructor]

(
[InstructorId] [Udt].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),

[FirstName] [Udt].[Name] NOT NULL,

[LastName] [Udt].[Name] NOT NULL,

[FullName] [Udt].[Name] NOT NULL

) ON [PRIMARY]
```

```
ALTER TABLE [Data].[Instructor] ADD CONSTRAINT [CK_FirstName] CHECK ((NOT [FirstName] like '%[^A-z''-.]%'))

GO

ALTER TABLE [Data].[Instructor] ADD CONSTRAINT [CK_FullName] CHECK (([FullName]=(([Last-Name]+', ')+[FirstName])))

GO

ALTER TABLE [Data].[Instructor] ADD CONSTRAINT [CK_LastName] CHECK ((NOT [LastName] like '%[^A-z''-.]%'))

GO

ALTER TABLE [Data].[Instructor] ADD CONSTRAINT [PK_Instruct_9D010A9BFDE5BB1E] PRIMARY KEY CLUSTERED ([InstructorId]) ON [PRIMARY]

GO
```

[Udt].[Name]

[Udt].[SurrogateKeyInt]

Data

### **Used By**

[Data].[Class]

[Project3].[LoadClass]

[Project3].[LoadInstructor]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

# [Data].[ModeOfInstruction]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	4
Created	4:44:43 AM Tuesday, May 10, 2022
Last Modified	4:44:44 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Default
PK C	Mode of Instruction	[Udt].[ModeOfInstruction]	100	NOT NULL	(N'Unknown')

### Indexes

Key	Name	Key Columns	Unique
PKP C	PKModeOfInD9BB901D2DB362D5	Mode of Instruction	True

### **SQL Script**

```
CREATE TABLE [Data].[ModeOfInstruction]

(
[Mode of Instruction] [Udt].[ModeOfInstruction] NOT NULL CONSTRAINT [DF_Mode of Instruction_Mode of Instruction] DEFAULT (N'Unknown')

) ON [PRIMARY]

GO

ALTER TABLE [Data].[ModeOfInstruction] ADD CONSTRAINT [PK_ModeOfIn_D9BB901D2DB362D5]

PRIMARY KEY CLUSTERED ([Mode of Instruction]) ON [PRIMARY]

GO
```

### Uses

[Udt].[ModeOfInstruction]

Data

### Used By

[Data].[Class]

[Project3].[LoadDepartment]

[Project3].[LoadModeOfInstruction] [Project3].[ShowTableStatusRowCount] [Project3].[TruncateData]

# ■ [DbSecurity].[UserAuthorization]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	7
Created	4:44:43 AM Tuesday, May 10, 2022
Last Modified	4:44:43 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	UserAuthorizationKey	[Udt].[SurrogateKeyInt]	2	NOT NULL	1 - 1
	ClassTime	[Udt].[ClassTime]	10	NOT NULL	
	IndividualProject	[Udt].[IndividualProject]	20	NOT NULL	
	GroupMemberLastName	[Udt].[Name]	70	NOT NULL	
	GroupMemberFirstName	[Udt].[Name]	70	NOT NULL	
	DateAdded	[Udt].[GeneralDateTime]	8	NULL allowed	

### Indexes

Key	Name	Key Columns	Unique
PK	PK_UserAuth_0FEC36CBD6AE97E2	UserAuthorizationKey	True

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

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

[ClassTime] [Udt].[ClassTime] NOT NULL,

[IndividualProject] [Udt].[IndividualProject] NOT NULL,

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

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

[DateAdded] [Udt].[GeneralDateTime] NULL

) ON [PRIMARY]

GO

ALTER TABLE [DbSecurity].[UserAuthorization] ADD CONSTRAINT [PK_User-Auth_OFEC36CBD6AE97E2] PRIMARY KEY CLUSTERED ([UserAuthorizationKey]) ON [PRIMARY]

GO
```

[Udt].[ClassTime]
[Udt].[GeneralDateTime]
[Udt].[IndividualProject]

[Udt].[Name]

[Udt].[SurrogateKeyInt]

DbSecurity

### **Used By**

[Project3].[ShowTableStatusRowCount]

# **Ⅲ** [Process].[WorkflowSteps]

### **Properties**

Property	Value
Collation	SQL_Latin1_General_CP1_CI_AS
Row Count (~)	0
Created	4:44:43 AM Tuesday, May 10, 2022
Last Modified	4:44:43 AM Tuesday, May 10, 2022

### Columns

Key	Name	Data Type	Max Length (Bytes)	Nullability	Identity
PK C	WorkflowStepKey	[Udt].[SurrogateKeyInt]	2	NOT NULL	1 - 1
	WorkflowDescription	[Udt].[LongDescription]	200	NOT NULL	
	WorkflowStepTableRowCount	[Udt].[GeneralInt]	4	NULL allowed	
	StartingDateTime	[Udt].[GeneralDateTime]	8	NULL allowed	
	EndingDateTime	[Udt].[GeneralDateTime]	8	NULL allowed	
	UserAuthorizationKey	[Udt].[SurrogateKeyInt]	2	NOT NULL	

### Indexes

Key	Name	Key Columns	Unique
PKC	PKWorkflow56F8DD1412737CF8	WorkflowStepKey	True

```
CREATE TABLE [Process].[WorkflowSteps]

(
[WorkflowStepKey] [Udt].[SurrogateKeyInt] NOT NULL IDENTITY(1, 1),

[WorkflowDescription] [Udt].[LongDescription] NOT NULL,

[WorkflowStepTableRowCount] [Udt].[GeneralInt] NULL,

[StartingDateTime] [Udt].[GeneralDateTime] NULL,

[EndingDateTime] [Udt].[GeneralDateTime] NULL,

[UserAuthorizationKey] [Udt].[SurrogateKeyInt] NOT NULL

) ON [PRIMARY]

GO

ALTER TABLE [Process].[WorkflowSteps] ADD CONSTRAINT [PK_Workflow_56F8DD1412737CF8]

PRIMARY KEY CLUSTERED ([WorkflowStepKey]) ON [PRIMARY]
```

GO

### Uses

[Udt].[GeneralDateTime]

[Udt].[GeneralInt]

[Udt].[LongDescription]

[Udt].[SurrogateKeyInt]

Process

### Used By

[Process].[ShowWorkflowSteps]

[Process].[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_-
CurrentSemesterCourseOfferings_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,
```

# Project > localhost,13001 > User databases > QueensClassSchedule > Tables > Uploadfile.CurrentSemester-CourseOfferings

```
[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].[LoadBuilding]

[Project3].[LoadBuildingRoom]

[Project3].[LoadClass]

[Project3].[LoadCourse]

[Project3].[LoadDepartment]

[Project3].[LoadInstructor]

[Project3].[LoadModeOfInstruction]

Views

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
         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
                                   INFORMATION SCHEMA.CONSTRAINT COLUMN USAGE
                         FROM
                                   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.ShowWorkflowSteps
Process.TrackWorkflow
Project3.AddForeignKeys
Project3.DropForeignKeys
Project3.LoadBuilding
Project3.LoadBuildingRoom
Project3.LoadClass
Project3.LoadCourse
Project3.LoadDepartment
Project3.LoadInstructor
Project3.LoadModeOfInstruction
Project3.LoadQueensCollegeData
Project3.ShowTableStatusRowCount
Project3.TruncateData



### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **SQL Script**

```
CREATE PROCEDURE [Process].[ShowWorkflowSteps]

AS

BEGIN

-- SET NOCOUNT ON added to prevent extra result sets from

-- interfering with SELECT statements.

SET NOCOUNT ON;

SELECT *

FROM [Process].[WorkFlowSteps];

END

GO
```

### Uses

[Process].[WorkflowSteps]

Process

## [Process].[TrackWorkflow]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@WorkflowDescription	LongDescription	200
@WorkflowStepTableRowCount	GeneralInt	4
@StartingDateTime	GeneralDateTime	8
@EndingDateTime	GeneralDateTime	8
@UserAuthorizationKey	SurrogateKeyInt	2

```
CREATE PROCEDURE [Process].[TrackWorkflow]
   -- same thing as project 2
  @WorkflowDescription Udt.LongDescription,
   @WorkflowStepTableRowCount Udt.GeneralInt,
   @StartingDateTime Udt.GeneralDateTime,
   @EndingDateTime Udt.GeneralDateTime,
   @UserAuthorizationKey Udt.SurrogateKeyInt
AS
BEGIN
-- -----
-- Author: Edwin Ramos
-- Create date: 05/05/2022
-- Description: Track work flow
-- -----
   -- SET NOCOUNT ON added to prevent extra result sets from
   -- interfering with SELECT statements.
   SET NOCOUNT ON;
   -- Insert statements for procedure here
   INSERT INTO [Process].[WorkflowSteps]
      WorkflowDescription,
      WorkflowStepTableRowCount,
      StartingDateTime,
      EndingDateTime,
```

```
UserAuthorizationKey
)
VALUES
(@WorkflowDescription, @WorkflowStepTableRowCount, @StartingDateTime, @EndingDateTime,
@UserAuthorizationKey);
END;
GO
```

[Process].[WorkflowSteps]

[Udt].[GeneralDateTime]

[Udt].[GeneralInt]

[Udt].[LongDescription]

[Udt].[SurrogateKeyInt]

Process

### **Used By**

[Project3].[AddForeignKeys]

[Project3].[DropForeignKeys]

[Project3].[LoadBuilding]

[Project3].[LoadBuildingRoom]

[Project3].[LoadClass]

[Project3].[LoadCourse]

[Project3].[LoadDepartment]

[Project3].[LoadInstructor]

[Project3].[LoadModeOfInstruction]

[Project3].[LoadQueensCollegeData]

[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	2

```
CREATE
        PROCEDURE [Project3].[AddForeignKeys] @UserAuthorizationKey AS Udt.Surrogate-
KeyInt
AS
BEGIN
-- Author: Edwin Ramos
-- Create date: 05/8/22
-- Description: adds foreign keys
   -- SET NOCOUNT ON added to prevent extra result sets from
   -- interfering with SELECT statements.
   DECLARE @StartingDateTime [Udt].[DateOf];
   SET @StartingDateTime = SYSDATETIME();
   ALTER TABLE [Data].Course
   ADD CONSTRAINT FK Course Department
   FOREIGN KEY(CourseDepartment) REFERENCES [Data].Department(DepartmentName);
   ALTER TABLE [Data].Class
   ADD CONSTRAINT FK Class Course
   FOREIGN KEY (CourseCode) REFERENCES [Data].Course(CourseCode);
   ALTER TABLE [Data].Class
   ADD CONSTRAINT FK_Class_ModeOfInstruction
   FOREIGN KEY (ModeOfInstruction) REFERENCES [Data].ModeOfInstruction("Mode of
Instruction");
   ALTER TABLE [Data].Class
   ADD CONSTRAINT FK Class Instructor
```

```
FOREIGN KEY (InstructorId) REFERENCES [Data].Instructor(InstructorId);
   ALTER TABLE [Data].Class
   ADD CONSTRAINT FK Class BuildingRoom
   FOREIGN KEY (ClassRoomId) REFERENCES [Data].BuildingRoom(BuildingRoomId);
   ALTER TABLE [Data].BuildingRoom
   ADD CONSTRAINT FK_BuildingRoom_Building
   FOREIGN KEY (BuildingId) REFERENCES [Data].Building(BuildingId);
   DECLARE @EndingDateTime DATETIME2;
   SET @EndingDateTime = SYSDATETIME();
   DECLARE @WorkflowStepTableRowCount INT;
   SET @WorkflowStepTableRowCount = 0;
   EXEC [Process].[TrackWorkFlow] 'Procedure: [Project3].[AddForeignKeys] adds all
foreign key constraints',
   @WorkflowStepTableRowCount,
   @StartingDateTime,
   @EndingDateTime,
   @UserAuthorizationKey;
END
GO
```

[Process].[TrackWorkflow] [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	2

```
CREATE
        PROCEDURE [Project3].[DropForeignKeys] @UserAuthorizationKey AS Udt.Surrogate-
KeyInt
AS
BEGIN
-- Author: Edwin Ramos
-- Create date: 05/8/22
-- Description: shows rows before any data is loaded
   -- SET NOCOUNT ON added to prevent extra result sets from
   -- interfering with SELECT statements.
   DECLARE @StartingDateTime [Udt].[DateOf];
   SET @StartingDateTime = SYSDATETIME();
   ALTER TABLE [Data].Course
   DROP CONSTRAINT FK Course Department
   ALTER TABLE [Data].Class
   DROP CONSTRAINT FK Class Course
   ALTER TABLE [Data].Class
   DROP CONSTRAINT FK Class ModeOfInstruction
   ALTER TABLE [Data].Class
   DROP CONSTRAINT FK_Class_Instructor
   ALTER TABLE [Data].Class
   DROP CONSTRAINT FK Class BuildingRoom
   ALTER TABLE [Data].BuildingRoom
```

```
DROP CONSTRAINT FK_BuildingRoom_Building

DECLARE @EndingDateTime DATETIME2;
SET @EndingDateTime = SYSDATETIME();

DECLARE @WorkflowStepTableRowCount INT;
SET @WorkflowStepTableRowCount = 0;

EXEC [Process].[TrackWorkFlow] 'Procedure: [Project3].[DropForeignKeys] adds all Foreign Keys',
@WorkflowStepTableRowCount,
@StartingDateTime,
@EndingDateTime,
@UserAuthorizationKey;

END

GO
```

[Process].[TrackWorkflow] [Udt].[Dateof] [Udt].[SurrogateKeyInt] Project3

**Used By** 

# [Project3].[LoadBuilding]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	2

```
-- Author: Bing Gao
-- Create date:
-- Description: Load data into Building table from [Uploadfile].[CurrentSemesterCourse-
Offerings]
-- ------
CREATE PROCEDURE [Project3].[LoadBuilding]
   -- Add the parameters for the stored procedure here
   @UserAuthorizationKey [Udt].[SurrogateKeyInt]
AS
BEGIN
   -- SET NOCOUNT ON added to prevent extra result sets from
   -- interfering with SELECT statements.
   SET NOCOUNT ON;
   -- Insert statements for procedure here
   DECLARE @DateAdded DATETIME2;
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate DATETIME2;
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime DATETIME2;
   SET @StartingDateTime = SYSDATETIME();
Insert INTO [Data].[Building]
(\verb|BuildingName|, \verb|BuildingAbbreviation|, \verb|DateAdded|, \verb|DateOfLastUpdated|)
```

```
SELECT DISTINCT
                --Extract the data from the Location column, and distinguish
abbreviation into full building name
                Case
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'AR' THEN 'Art Center'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'CD' THEN 'Campbell Dome'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'CH' THEN 'Colwin Hall'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'DY' THEN 'Delany Hall'
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'FG' THEN 'FitzGerald Gym'
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'GB' THEN 'G Building'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'GC' THEN 'Gertz Center'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'GT' THEN 'GoldStein
Theatre'
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'HH' THEN 'Honors Center'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'IB' THEN 'I Building'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'JH' THEN 'J Building'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'KG' THEN 'King Hall'
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'KP' THEN 'Klapper Hall'
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'KY' THEN 'Kiely Hall'
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'MU' THEN 'Music Building'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'PH' THEN 'Powdermaker
Hall'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'QH' THEN 'Quad'
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'RA' THEN 'Rathaus Hall'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'RE' THEN 'Remsen Hall'
                        WHEN SUBSTRING(CSCO.Location, 1,2) = 'RO' THEN 'Rosenthal
Libraty'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'RZ' THEN 'Razran Hall'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'SB' THEN 'Science
Building'
                        WHEN SUBSTRING (CSCO.Location, 1,2) = 'SU' THEN 'Student Union'
                        ELSE 'TBD'
                END AS BuildingName,
                Case
                        WHEN len(CSCO.Location) > 1 THEN SUBSTRING(CSCO.Location, 1,2)
                        ELSE 'TBD'
                END as BuildingAbbreviation,
                SYSDATETIME(),
                SYSDATETIME ()
FROM [Uploadfile].[CurrentSemesterCourseOfferings] as CSCO
   DECLARE @EndingDateTime DATETIME2;
   set @EndingDateTime = SYSDATETIME()
   DECLARE @WorkflowStepTableRowCount INT;
   SET @WorkflowStepTableRowCount = (SELECT COUNT(*) FROM [Data].[Building]);
   EXEC [Process].[TrackWorkFlow]
        'Procedure: [Project3]. [LoadBuilding] loads data into [Data]. [Building]',
        @WorkflowStepTableRowCount,
        @StartingDateTime,
        @EndingDateTime,
```

Project > localhost,13001 > User databases > QueensClassSchedule > Programmability > Stored Procedures > Project3.LoadBuilding

@UserAuthorizationKey
END
GO

### Uses

[Data].[Building]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[TrackWorkflow]
[Udt].[SurrogateKeyInt]
Project3

### **Used By**

## [Project3].[LoadBuildingRoom]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	2

```
-- Author: Bing Gao
-- Create date:
-- Description: Load data into BuildingRoom table from [Uploadfile].[CurrentSemester-
CourseOfferings],
-- -----
CREATE PROCEDURE [Project3].[LoadBuildingRoom]
   -- Add the parameters for the stored procedure here
   @UserAuthorizationKey [Udt].[SurrogateKeyInt]
AS
BEGIN
   -- SET NOCOUNT ON added to prevent extra result sets from
   -- interfering with SELECT statements.
   SET NOCOUNT ON;
   -- Insert statements for procedure here
   DECLARE @DateAdded DATETIME2;
   SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate DATETIME2;
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime DATETIME2;
   SET @StartingDateTime = SYSDATETIME();
Insert INTO [Data].[BuildingRoom]
(BuildingId,RoomCode, DateAdded, DateOfLastUpdated)
```

```
SELECT DISTINCT
                B.BuildingId,
                --Extract the data from the Location column
                       WHEN len(CSCO.Location) > 1 THEN SUBSTRING(CSCO.Location, 4,5)
                       ELSE 'TBD'
                END as RoomCode,
                SYSDATETIME(),
                SYSDATETIME ()
FROM [Uploadfile].[CurrentSemesterCourseOfferings] as CSCO
INNER JOIN [Data]. [Building] as B On SUBSTRING (CSCO. Location, 1, 2) = B.Building-
Abbreviation;
   DECLARE @EndingDateTime DATETIME2;
   set @EndingDateTime = SYSDATETIME()
   DECLARE @WorkflowStepTableRowCount INT;
   SET @WorkflowStepTableRowCount = (SELECT COUNT(*) FROM [Data].[BuildingRoom]);
   EXEC [Process].[TrackWorkFlow]
        'Procedure: [Project3].[LoadBuildingRoom] loads data into [Data].[Building-
Room]',
        @WorkflowStepTableRowCount,
       @StartingDateTime,
        @EndingDateTime,
        @UserAuthorizationKey
END
GO
```

[Data].[Building][Data].[BuildingRoom][Uploadfile].[CurrentSemesterCourseOfferings][Process].[TrackWorkflow][Udt].[SurrogateKeyInt]Project3

**Used By** 

# [Project3].[LoadClass]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	2

```
-- Author: Akashdeep Singh
-- Create date: 5/6/22
-- Description: Load Data into Class
CREATE PROCEDURE [Project3].[LoadClass]
   @UserAuthorizationKey [Udt].[SurrogateKeyInt]
AS
BEGIN
   -- SET NOCOUNT ON added to prevent extra result sets from
   -- interfering with SELECT statements.
   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 [Data].[Class](
       Section,
       CourseCode,
       CourseName,
       CourseDescription,
        InstructorId,
        InstructorFullName,
        [Day],
        [Hours],
```

```
NumberEnrolled,
        [Limit],
        OverTally,
        ModeOfInstruction,
        ClassRoomId,
        DateAdded,
        DateOfLastUpdate
        ) SELECT
        [Sec],
        [Code],
        [Course (hr, crd)],
        [Description],
        I.InstructorId AS InstructorId,
        I.FullName AS Instructor,
        [Day],
        [Time],
        [Enrolled],
        [Limit],
        CASE WHEN CAST(Enrolled AS INT) > CAST(Limit AS INT) then CAST(Enrolled AS INT)
- CAST (Limit AS INT) ELSE 0 END as [OverTally],
        [Mode of Instruction],
       BR.BuildingRoomId,
        @DateAdded,
        @DateOfLastUpdate
        FROM [Uploadfile].[CurrentSemesterCourseOfferings] AS CSCO
        INNER JOIN [Data].Instructor AS I ON CSCO.Instructor = I.FullName
        INNER JOIN [Data]. Building AS B ON B. Building Abbreviation = (SELECT TOP 1 Value
FROM STRING_SPLIT(CSCO.Location, ' '))
        INNER JOIN [Data].BuildingRoom BR ON BR.BuildingId = B.BuildingId
           AND BR.RoomCode = (
               SELECT TOP 1 Value FROM STRING SPLIT(CSCO.Location, ' ')
                ORDER BY Value
   DECLARE @EndingDateTime DATETIME2;
   SET @EndingDateTime = SYSDATETIME();
   DECLARE @WorkflowStepTableRowCount INT;
   SET @WorkflowStepTableRowCount = (SELECT COUNT(*) FROM [Data].[Class]);
    --workflow steps
   EXEC [Process].[TrackWorkFlow] 'Procedure: [Project3].[LoadClass] loads into
[Project3].[Class]',
        @WorkflowStepTableRowCount,
        @StartingDateTime,
        @EndingDateTime,
        @UserAuthorizationKey;
END;
GΩ
```

Project > localhost,13001 > User databases > QueensClassSchedule > Programmability > Stored Procedures > Project3.LoadClass

### Uses

[Data].[Building]

[Data].[BuildingRoom]

[Data].[Class]

[Data].[Instructor]

[Uploadfile].[CurrentSemesterCourseOfferings]

[Process].[TrackWorkflow]

[Udt].[Dateof]

[Udt].[SurrogateKeyInt]

Project3

### **Used By**

# [Project3].[LoadCourse]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	2

```
-- Author: Akashdeep Singh
-- Create date: 5/6/22
-- Description: Load Data into Course
CREATE PROCEDURE [Project3].[LoadCourse]
   @UserAuthorizationKey [Udt].[SurrogateKeyInt]
AS
BEGIN
   -- SET NOCOUNT ON added to prevent extra result sets from
    -- interfering with SELECT statements.
   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 [Data].[Course]
       (CourseCode, CourseDepartment, CourseName, CourseDescription, DateAdded, DateOf-
LastUpdate)
   SELECT DISTINCT Code, D.DepartmentName, [Course (hr, crd)], [Description], @Date-
Added, @DateOfLastUpdate
       FROM [Uploadfile].[CurrentSemesterCourseOfferings] AS CSCO
        INNER JOIN [Data].Department AS D ON D.DepartmentAbbreviation = (SELECT TOP 1
Value FROM STRING_SPLIT(CSCO.[Course (hr, crd)],' '));
```

[Data].[Course]
[Data].[Department]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[TrackWorkflow]
[Udt].[Dateof]
[Udt].[SurrogateKeyInt]

Project3

Used By

## [Project3].[LoadDepartment]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	2

```
CREATE PROCEDURE [Project3].[LoadDepartment] @UserAuthorizationKey Udt.SurrogateKey-
AS BEGIN
   SET NOCOUNT ON:
   DECLARE @StartingDateTime DATETIME2;
       SET @StartingDateTime = SYSDATETIME();
   INSERT INTO [Data].Department(
       DepartmentAbbreviation,
        DepartmentName
   ) SELECT DISTINCT
        (SELECT TOP 1 Value FROM STRING SPLIT(CSCO.[Course (hr, crd)],' ')),
       Project3.GetFullDepartmentName((SELECT TOP 1 Value FROM STRING -
SPLIT(CSCO.[Course (hr, crd)],' ')))
       FROM UploadFile.CurrentSemesterCourseOfferings AS CSCO;
   DECLARE @EndingDateTime DATETIME2;
   SET @EndingDateTime = SYSDATETIME();
   DECLARE @WorkflowStepTableRowCount INT;
   SET @WorkFlowStepTableRowCount = (SELECT COUNT(*) FROM [Data].[ModeOfInstruction]);
   EXEC [Process].[TrackWorkFlow]
        'Procedure: [Project3].[LoadDepartment] loads data into table
[Data].[Department]',
        @WorkflowStepTableRowCount,
        @StartingDateTime,
        @EndingDateTime,
        @UserAuthorizationKey
```

Project > localhost,13001 > User databases > QueensClassSchedule > Programmability > Stored Procedures > Project3.LoadDepartment

END GO

### Uses

[Data].[Department]
[Data].[ModeOfInstruction]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[TrackWorkflow]
[Udt].[SurrogateKeyInt]
[Project3].[GetFullDepartmentName]
Project3

**Used By** 

## [Project3].[LoadInstructor]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	2

```
CREATE
        PROCEDURE [Project3].[LoadInstructor] @UserAuthorizationKey [Udt].SurrogateKey-
Int
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @StartingDateTime Udt.GeneralDateTime;
   SET @StartingDateTime = SYSDATETIME();
   INSERT INTO [Data].[Instructor](
       FullName,
       LastName,
       FirstName
   ) SELECT DISTINCT
       Instructor,
       SUBSTRING(Instructor, 1, CHARINDEX(',', Instructor)-1) as LastName,
        SUBSTRING(Instructor, CHARINDEX(',', Instructor)+2, LEN(Instructor)) as First-
Name
   FROM [Uploadfile].[CurrentSemesterCourseOfferings]
   WHERE Instructor NOT LIKE ',';
   DECLARE @WorkflowDescription Udt.LongDescription;
   SET @WorkflowDescription = 'Procedure: [Project3].[LoadInstructor] loads data into
[Data].[Instructor]';
   DECLARE @EndingDateTime Udt.DateAdded;
   SET @EndingDateTime = SYSDATETIME();
```

[Data].[Instructor]

[Uploadfile].[CurrentSemesterCourseOfferings]

[Process].[TrackWorkflow]

[Udt].[DateAdded]

[Udt].[GeneralDateTime]

[Udt].[GeneralInt]

[Udt].[LongDescription]

[Udt].[SurrogateKeyInt]

Project3

### **Used By**

### [Project3].[LoadModeOfInstruction]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	2

```
-- Author: Michael Chang
-- Create date: 5/6/2022
-- Description: Populate table ModeOfInstruction
-- -----
CREATE PROCEDURE [Project3].[LoadModeOfInstruction] @UserAuthorizationKey
Udt.SurrogateKeyInt
AS
BEGIN
   -- SET NOCOUNT ON added to prevent extra result sets from
   -- interfering with SELECT statements.
   SET NOCOUNT ON;
   DECLARE @DateAdded DATETIME2
     SET @DateAdded = SYSDATETIME();
   DECLARE @DateofLastUpdate DATETIME2;
      SET @DateofLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime DATETIME2;
      SET @StartingDateTime = SYSDATETIME();
   INSERT INTO [Data].ModeOfInstruction
       ([Mode of Instruction])
   SELECT DISTINCT [Mode of Instruction]
   FROM [Uploadfile].[CurrentSemesterCourseOfferings]
```

[Data].[ModeOfInstruction]
[Uploadfile].[CurrentSemesterCourseOfferings]
[Process].[TrackWorkflow]
[Udt].[SurrogateKeyInt]
Project3

### **Used By**

### [Project3].[LoadQueensCollegeData]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

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

```
CREATE PROCEDURE [Project3].[LoadQueensCollegeData] @UserAuthorizationKey INT
AS
-- ------
-- Author: Edwin Ramos
-- Create date: 5/08/22
-- Description: Load Queens Collge Data
-- -----
   SET NOCOUNT ON;
     DECLARE @StartingDateTime DATETIME2 = SYSDATETIME();
       drop foreign keys prior to truncating tables
   EXEC [Project3].[DropForeignKeys] @UserAuthorizationKey = 1;
   -- truncate the data
   EXEC [Project3].[TruncateData] @UserAuthorizationKey = 1;
   -- Check row count after truncation
   EXEC [Project3].[ShowTableStatusRowCount]
      @UserAuthorizationKey = 1,
      @TableStatus = N'''Pre-truncate of tables'''
   -- load the data
   EXEC Project3.LoadModeOfInstruction @UserAuthorizationKey = 2;
   EXEC Project3.LoadDepartment @UserAuthorizationKey = 6;
   EXEC Project3.LoadInstructor @UserAuthorizationKey = 4;
   EXEC Project3.LoadCourse @UserAuthorizationKey = 5;
   EXEC Project3.LoadBuilding @UserAuthorizationKey = 7;
   EXEC Project3.LoadBuildingRoom @UserAuthorizationKey = 7;
   EXEC Project3.LoadClass @UserAuthorizationKey = 5;
```

```
Recreate all of the foreign keys prior after loading
   EXEC [Project3].[AddForeignKeys] @UserAuthorizationKey = 1;
         Check row count before truncation
   EXEC [Project3].[ShowTableStatusRowCount]
       @UserAuthorizationKey = 1,
        @TableStatus = N'''Row Count after loading'''
   DECLARE @WorkflowStepTableRowCount INT;
   SET @WorkflowStepTableRowCount = 0;
   DECLARE @EndingDateTime DATETIME2 = SYSDATETIME();
   EXEC [Process].[TrackWorkFlow] 'Procedure: [Project3].[LoadQueensCollegeData] Loads
all Queens College Data',
                                       @WorkflowStepTableRowCount,
                                       @StartingDateTime,
                                       @EndingDateTime,
                                       @UserAuthorizationKey;
END;
GO
```

[Process].[TrackWorkflow]
[Project3].[AddForeignKeys]
[Project3].[DropForeignKeys]
[Project3].[LoadBuilding]
[Project3].[LoadBuildingRoom]
[Project3].[LoadClass]
[Project3].[LoadCourse]
[Project3].[LoadDepartment]
[Project3].[LoadInstructor]
[Project3].[LoadModeOfInstruction]
[Project3].[ShowTableStatusRowCount]
[Project3].[TruncateData]
Project3

### [Project3].[ShowTableStatusRowCount]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@TableStatus	LongDescription	200
@UserAuthorizationKey	GeneralInt	4

```
CREATE PROCEDURE [Project3].[ShowTableStatusRowCount] @TableStatus Udt.Long-
Description, @UserAuthorizationKey Udt.GeneralInt
AS
BEGIN
-- -----
-- Author: Edwin Ramos
-- Create date: 05/8/22
-- Description: shows rows before any data is loaded
-- -----
   -- SET NOCOUNT ON added to prevent extra result sets from
   -- interfering with SELECT statements.
   SET NOCOUNT ON;
  DECLARE @DateAdded DATETIME2;
  SET @DateAdded = SYSDATETIME();
   DECLARE @DateOfLastUpdate DATETIME2;
   SET @DateOfLastUpdate = SYSDATETIME();
   DECLARE @StartingDateTime DATETIME2;
   SET @StartingDateTime = SYSDATETIME();
   DECLARE @EndingDateTime DATETIME2;
   DECLARE @WorkFlowStepTableRowCount INT;
   SET @WorkFlowStepTableRowCount = 0;
   SELECT TableStatus = @TableStatus,
```

```
TableName = 'Data.Class',
          [Row Count] = COUNT(*)
   FROM [Data].Class
   UNION ALL
   SELECT TableStatus = @TableStatus,
         TableName = 'Data.Course',
          [Row Count] = COUNT(*)
   FROM [Data].Course
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'Data.Instructor',
          [Row Count] = COUNT(*)
   FROM [Data].Instructor
   UNION ALL
   SELECT TableStatus = @TableStatus,
         TableName = 'Data.ModeofInstruction',
          [Row Count] = COUNT(*)
   FROM [Data].ModeOfInstruction
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'Data.Department',
          [Row Count] = COUNT(*)
   FROM [Data].Department
   UNTON ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'Data.BuildingRoom',
          [Row Count] = COUNT(*)
   FROM [Data].Building
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'Data.RoomLocation',
          [Row Count] = COUNT(*)
   FROM [Data].BuildingRoom
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'DbSecurity.UserAuthorization',
          [Row Count] = COUNT(*)
   FROM [DbSecurity].UserAuthorization
   UNION ALL
   SELECT TableStatus = @TableStatus,
          TableName = 'Process.WorkflowSteps',
          [Row Count] = COUNT(*)
   FROM [Process].WorkflowSteps;
   SET @EndingDateTime = SYSDATETIME();
   EXEC [Process].[TrackWorkFlow] 'Procedure: [Project3].[ShowStatusRowCount] prepare
data about row count',
                                       @WorkFlowStepTableRowCount,
                                       @StartingDateTime,
                                       @EndingDateTime,
                                       @UserAuthorizationKey;
```

Project > localhost,13001 > User databases > QueensClassSchedule > Programmability > Stored Procedures > Project3.ShowTableStatusRowCount

END;
GO

### Uses

[Data].[Building]

[Data].[BuildingRoom]

[Data].[Class]

[Data].[Course]

[Data].[Department]

[Data].[Instructor]

[Data].[ModeOfInstruction]

[DbSecurity].[UserAuthorization]

[Process].[WorkflowSteps]

[Process].[TrackWorkflow]

[Udt].[GeneralInt]

[Udt].[LongDescription]

Project3

### **Used By**

# [Project3].[TruncateData]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

Name	Data Type	Max Length (Bytes)
@UserAuthorizationKey	SurrogateKeyInt	2

```
CREATE PROCEDURE [Project3].[TruncateData] @UserAuthorizationKey Udt.SurrogateKeyInt
AS
BEGIN
   SET NOCOUNT ON;
   DECLARE @StartingDateTime DATETIME2 = SYSDATETIME();
   TRUNCATE TABLE [Data].Instructor;
   TRUNCATE TABLE [Data].ModeOfInstruction;
   TRUNCATE TABLE [Data].Department;
   TRUNCATE TABLE [Data].Building;
   TRUNCATE TABLE [Data].BuildingRoom;
   TRUNCATE TABLE [Data].Class;
   TRUNCATE TABLE [Data].Course;
   DECLARE @WorkflowStepTableRowCount INT;
   SET @WorkflowStepTableRowCount = 0;
   DECLARE @EndingDateTime DATETIME2 = SYSDATETIME()
   EXEC [Process].[TrackWorkflow] 'Procedure: [Project3].[TruncateData] truncates
queens college data',
       @WorkflowStepTableRowCount,
        @StartingDateTime,
       @EndingDateTime,
        @UserAuthorizationKey
END
GO
```

Project > localhost,13001 > User databases > QueensClassSchedule > Programmability > Stored Procedures > Project3.TruncateData

### Uses

[Data].[Building]

[Data].[BuildingRoom]

[Data].[Class]

[Data].[Course]

[Data].[Department]

[Data].[Instructor]

[Data].[ModeOfInstruction]

[Process].[TrackWorkflow]

[Udt].[SurrogateKeyInt]

Project3

### **Used By**

 $\label{localhost} Project > localhost, 13001 > User\ databases > QueensClassSchedule > Programmability > Functions > Table-valued\ Functions$ 

### **■ Table-valued Functions**

### Objects

Name	
dbo.DatabaseObjects	
dbo.JSONHierarchy	

### 🗔 [dbo].[DatabaseObjects]

### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

### **Parameters**

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

```
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')
   Returns: >
     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
);
GO
```

### [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

```
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
  , Parent ID int
in this 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
          , @array int = 4
          , @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
                    int
         , @ii
         , @iiMax
                     int
         , @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=1
             , "
             , case @firstchar
                  when '[' then
                      'array'
                  else
                      'object'
              end;
                               = case @firstchar
       select @type
                                      when '[' then
                                          @array
                                      else
                                          @object
            , @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
                                 null
                             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
         , ''
         , 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
```

 $\label{localhost} Project > localhost, 13001 > User \ databases > Queens Class Schedule > Programma bility > Functions > Table-valued Functions > dbo. JSON Hierarchy$ 

Project > localhost,13001 > User databases > QueensClassSchedule > Programmability > Functions > Scalar-valued Functions



**Objects** 

#### Name

Project 3. Get Full Department Name

# [Project3].[GetFullDepartmentName]

#### **Properties**

Property	Value
ANSI Nulls On	True
Quoted Identifier On	True

#### **Parameters**

Name	Data Type	Max Length (Bytes)
@Abbreviation	nvarchar(5)	10

#### **SQL Script**

Author: chang

```
FUNCTION [Project3].[GetFullDepartmentName](@Abbreviation NVARCHAR(5))
RETURNS NVARCHAR (40)
AS
BEGIN
   DECLARE @FullName NVARCHAR(40);
   SET @FullName = CASE
       WHEN @Abbreviation = 'ANTH' THEN 'Anthropology'
       WHEN @Abbreviation = 'BIOL' THEN 'Biology'
       WHEN @Abbreviation = 'FNES' THEN 'Family, Nutrition and Exercise Sciences'
       WHEN @Abbreviation = 'PHIL' THEN 'Philosophy'
       WHEN @Abbreviation = 'LATIN' THEN 'Latin'
       WHEN @Abbreviation = 'GRKST' THEN 'Greek Studies'
       WHEN @Abbreviation = 'CSCI' THEN 'Computer Science'
       WHEN @Abbreviation = 'DRAM' THEN 'Drama'
       WHEN @Abbreviation = 'GERM' THEN 'German'
       WHEN @Abbreviation = 'HIST' THEN 'History'
       WHEN @Abbreviation = 'BUS' THEN 'Business'
       WHEN @Abbreviation = 'FREN' THEN 'French'
       WHEN @Abbreviation = 'ANTH' THEN 'Anthropology'
       WHEN @Abbreviation = 'ECPSE' THEN 'Special Education'
       WHEN @Abbreviation = 'PSYCH' THEN 'Psychology'
       WHEN @Abbreviation = 'IRST' THEN 'Irish Studies'
       WHEN @Abbreviation = 'BALA' THEN 'Business and Liberal Arts'
       WHEN @Abbreviation = 'GEOL' THEN 'Geology'
       WHEN @Abbreviation = 'RM' THEN 'Risk Management'
       WHEN @Abbreviation = 'JEWST' THEN 'Jewish Studies'
       WHEN @Abbreviation = 'ARTH' THEN 'Art History'
       WHEN @Abbreviation = 'MUSIC' THEN 'Music'
        WHEN @Abbreviation = 'PORT' THEN 'Portuguese'
        WHEN @Abbreviation = 'ECP' THEN 'Education and Community Programs'
       WHEN @Abbreviation = 'CO-OP' THEN 'Cooperative Education'
```

```
WHEN @Abbreviation = 'CLAS' THEN 'Classics'
        WHEN @Abbreviation = 'AMST' THEN 'American Studies'
        WHEN @Abbreviation = 'CERT' THEN 'Certification Programs'
        WHEN @Abbreviation = 'EECE' THEN 'Elementary and Early Childhood'
       WHEN @Abbreviation = 'ECPSP' THEN 'School Psychology'
       WHEN @Abbreviation = 'CMAL' THEN 'Classical, Middle Eastern & Asian Languages &
Cultures'
       WHEN @Abbreviation = 'ARAB' THEN 'Arabic Studies'
        WHEN @Abbreviation = 'HEBRW' THEN 'Hebrew Studies'
       WHEN @Abbreviation = 'SPST' THEN 'Special Studies'
       WHEN @Abbreviation = 'EAST' THEN 'East Asian Studies'
        WHEN @Abbreviation = 'HNRS' THEN 'Honors'
       WHEN @Abbreviation = 'CHIN' THEN 'Chinese'
       WHEN @Abbreviation = 'CHEM' THEN 'Chemistry'
       WHEN @Abbreviation = 'JOURN' THEN 'Journalism'
        WHEN @Abbreviation = 'AFST' THEN 'African Studies'
        WHEN @Abbreviation = 'HNRS' THEN 'Honors'
        WHEN @Abbreviation = 'STABD' THEN 'Study Abroad'
       WHEN @Abbreviation = 'PSCI' THEN 'Political Science'
       WHEN @Abbreviation = 'ENGL' THEN 'English'
       WHEN @Abbreviation = 'EURO' THEN 'European Studies'
       WHEN @Abbreviation = 'JAZZ' THEN 'Jazz Studies'
        WHEN @Abbreviation = 'CUNBA' THEN 'CUNY Baccalaureate'
        WHEN @Abbreviation = 'JAZZ' THEN 'Jazz Studies'
        WHEN @Abbreviation = 'ECPCE' THEN 'Counselor Education'
        WHEN @Abbreviation = 'WGS' THEN 'Women and Gender Studies'
        WHEN @Abbreviation = 'MEDST' THEN 'Medieval Studies'
       WHEN @Abbreviation = 'SEYSL' THEN 'Education Secondary (Literacy)'
       WHEN @Abbreviation = 'SEEK' THEN 'SEEK Program'
        WHEN @Abbreviation = 'HSS' THEN 'Honors in the Social Sciences'
       WHEN @Abbreviation = 'BIOCH' THEN 'Biochemistry'
       WHEN @Abbreviation = 'PHYS' THEN 'Physics'
       WHEN @Abbreviation = 'SEYS' THEN 'Education Secondary'
       WHEN @Abbreviation = 'LBSCI' THEN 'Library Science'
       WHEN @Abbreviation = 'SOC' THEN 'Sociology'
       WHEN @Abbreviation = 'ASTR' THEN 'Astrology'
       WHEN @Abbreviation = 'HMNS' THEN 'Humanities'
        WHEN @Abbreviation = 'SEEK' THEN 'SEEK Program'
        WHEN @Abbreviation = 'LBLST' THEN 'Liberal Studies'
        WHEN @Abbreviation = 'RLGST' THEN 'Religious Studies'
        WHEN @Abbreviation = 'CMLIT' THEN 'Comparative Literature'
       WHEN @Abbreviation = 'RUSS' THEN 'Russian'
       WHEN @Abbreviation = 'CESL' THEN 'College English as Second Language'
        WHEN @Abbreviation = 'JPNS' THEN 'Japanese'
       WHEN @Abbreviation = 'LABST' THEN 'Labor Studies'
        WHEN @Abbreviation = 'ARTS' THEN 'Art Studio'
       WHEN @Abbreviation = 'MES' THEN 'Middle Eastern Studies'
        WHEN @Abbreviation = 'PERM' THEN 'E-Permit'
       WHEN @Abbreviation = 'LCD' THEN 'Linguistics and Communication Disorders'
       WHEN @Abbreviation = 'KOR' THEN 'Korean'
        WHEN @Abbreviation = 'MAM' THEN 'Maitenance of Maltrication'
        WHEN @Abbreviation = 'SPAN' THEN 'Spanish'
        WHEN @Abbreviation = 'ACCT' THEN 'Accounting'
```

Project > localhost,13001 > User databases > QueensClassSchedule > Programmability > Functions > Scalar-valued Functions > Project3.GetFullDepartmentName

```
WHEN @Abbreviation = 'LIBR' THEN 'Library'
       WHEN @Abbreviation = 'ECPEL' THEN 'Education/Instructional Leadership'
       WHEN @Abbreviation = 'STPER' THEN 'Student Personnel'
       WHEN @Abbreviation = 'GRKMD' THEN 'Modern Greek'
       WHEN @Abbreviation = 'MATH' THEN 'Mathematics'
       WHEN @Abbreviation = 'DANCE' THEN 'Dance'
       WHEN @Abbreviation = 'ECON' THEN 'Economics'
       WHEN @Abbreviation = 'URBST' THEN 'Urban Studies'
       WHEN @Abbreviation = 'ENSCI' THEN 'Environmental Science'
       WHEN @Abbreviation = 'ITAL' THEN 'Italian'
       WHEN @Abbreviation = 'GREEK' THEN 'Greek'
       WHEN @Abbreviation = 'HTH' THEN 'Honors in Humanities'
       ELSE 'Unknown'
        END;
   RETURN @FullName
END;
GO
```

Uses

Project3

**Used By** 

[Project3].[LoadDepartment]

# iii User-Defined Data Types

## Objects

Name
Udt.Abbreviation
Udt.ClassTime
Udt.Count
Udt.CourseCode
Udt.CourseDesc
Udt.CourseName
Udt.DateAdded
Udt.Dateof
Udt.DayOfWeek
Udt.DepartmentName
Udt.GeneralDateTime
Udt.GeneralInt
Udt.IndividualProject
Udt.IntValue
Udt.LongDescription
Udt.ModeOfInstruction
Udt.Name
Udt.RoomCode
Udt.Section
Udt.SurrogateKeyInt

# [Udt].[Abbreviation]

## **Properties**

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	6

#### **SQL Script**

CREATE TYPE [Udt].[Abbreviation] FROM nvarchar (6) NULL
GO

Uses

Udt

**Used By** 

[Data].[Building]
[Data].[Department]

# [Udt].[ClassTime]

## **Properties**

Property	Value
Nullability	NOT NULL
Base Type Name	nchar
Length	5

#### **SQL Script**

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

Uses

Udt

**Used By** 

[DbSecurity].[UserAuthorization]



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** 

[Data].[Class]

# [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** 

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

# [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** 

[Data].[Class] [Data].[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** 

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

# [Udt].[DateAdded]

## **Properties**

Property	Value
Nullability	NULL allowed
Base Type Name	date
Length	3

#### **SQL Script**

CREATE TYPE [Udt].[DateAdded] FROM date NULL
GO

Uses

Udt

**Used By** 

[Data].[Class] [Data].[Department]

[Project3].[LoadInstructor]

# [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

[Data].[Course]

[Project3].[AddForeignKeys]

[Project3].[DropForeignKeys]

[Project3].[LoadClass]

[Project3].[LoadCourse]

# [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** 

[Data].[Class]

# [Udt].[DepartmentName]

## **Properties**

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	40

#### **SQL Script**

CREATE TYPE [Udt].[DepartmentName] FROM nvarchar (40) NULL
GO

Uses

Udt

**Used By** 

[Data].[Course]
[Data].[Department]

Author: chang

# [Udt].[GeneralDateTime]

## **Properties**

Property	Value
Nullability	NULL allowed
Base Type Name	datetime2
Length	8

#### **SQL Script**

CREATE TYPE [Udt].[GeneralDateTime] FROM datetime2 NULL
GO

#### Uses

Udt

# Used By

[Data].[Building]

[Data].[BuildingRoom]

[DbSecurity].[UserAuthorization]

[Process].[WorkflowSteps]

[Process].[TrackWorkflow]

[Project3].[LoadInstructor]

# [Udt].[GeneralInt]

## **Properties**

Property	Value
Nullability	NULL allowed
Base Type Name	int
Length	4

#### **SQL Script**

CREATE TYPE [Udt].[GeneralInt] FROM int NULL
GO

#### Uses

Udt

# Used By

[Process].[WorkflowSteps]

[Process].[TrackWorkflow]

[Project3].[LoadInstructor]

[Project3].[ShowTableStatusRowCount]

# [Udt].[IndividualProject]

## **Properties**

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	10

#### **SQL Script**

CREATE TYPE [Udt].[IndividualProject] FROM nvarchar (10) NOT NULL
GO

Uses

Udt

**Used By** 

[DbSecurity].[UserAuthorization]



Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	50

#### **SQL Script**

CREATE TYPE [Udt].[IntValue] FROM nvarchar (50) NULL
GO

Uses

Udt

**Used By** 

[Data].[Class]

# [Udt].[LongDescription]

## **Properties**

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	100

#### **SQL Script**

CREATE TYPE [Udt].[LongDescription] FROM nvarchar (100) NOT NULL
GO

#### Uses

Udt

## Used By

[Process].[WorkflowSteps]

[Process].[TrackWorkflow]

[Project3].[LoadInstructor]

[Project3].[ShowTableStatusRowCount]

# [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** 

[Data].[Class]

[Data].[ModeOfInstruction]

# " [Udt].[Name]

## **Properties**

Property	Value
Nullability	NOT NULL
Base Type Name	nvarchar
Length	35

#### **SQL Script**

CREATE TYPE [Udt].[Name] FROM nvarchar (35) NOT NULL
GO

#### Uses

Udt

# Used By

[Data].[Building] [Data].[Class]

[Data].[Instructor]

[DbSecurity].[UserAuthorization]

# [Udt].[RoomCode]

## **Properties**

Property	Value
Nullability	NULL allowed
Base Type Name	nvarchar
Length	5

#### **SQL Script**

CREATE TYPE [Udt].[RoomCode] FROM nvarchar (5) NULL
GO

Uses

Udt

**Used By** 

[Data].[BuildingRoom]

# [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** 

[Data].[Class]

# [Udt].[SurrogateKeyInt]

#### **Properties**

Property	Value
Nullability	NOT NULL
Base Type Name	smallint
Length	2

#### **SQL Script**

CREATE TYPE [Udt].[SurrogateKeyInt] FROM smallint NOT NULL
GO

#### Uses

Udt

# Used By

[Data].[Building]

[Data].[BuildingRoom]

[Data].[Class]

[Data].[Department]

[Data].[Instructor]

[DbSecurity].[UserAuthorization]

[Process].[WorkflowSteps]

[Process].[TrackWorkflow]

[Project3].[AddForeignKeys]

[Project3].[DropForeignKeys]

[Project3].[LoadBuilding]

[Project3].[LoadBuildingRoom]

[Project3].[LoadClass]

[Project3].[LoadCourse]

[Project3].[LoadDepartment]

[Project3].[LoadInstructor]

[Project3].[LoadModeOfInstruction]

[Project3].[TruncateData]



## Objects

Name
BiStudent
lbo
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

Project > localhost,13001 > User databases > QueensClassSchedule > Security > Roles > Database Roles > db\_ddladmin

# db\_ddladmin

## **Properties**

Property	Value
Owner	dbo

# db\_denydatareader

## **Properties**

Property	Value
Owner	dbo

# db\_denydatawriter

## **Properties**

Property	Value
Owner	dbo

# db\_owner

Project > localhost,13001 > User databases > QueensClassSchedule > Security > Roles > Database Roles > db\_owner

#### **Properties**

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

# nublic 🕰

#### **Properties**

Property	Value
Owner	dbo

# **△** Schemas

## Objects

Name
Data
DbSecurity
GroupNameProject3
Process
Project3
Udt
Uploadfile
Utils
YourLastName

# **♣** Data

## **Properties**

Property	Value
Owner	dbo

## **SQL Script**

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

#### **Used By**

[Data].[Building]

[Data].[BuildingRoom]

[Data].[Class]

[Data].[Course]

[Data].[Department]

[Data].[Instructor]

[Data].[ModeOfInstruction]

# **♣** 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 [GroupNameProject3]
AUTHORIZATION [dbo]
GO
```

# **⚠** Process

## **Properties**

Property	Value
Owner	dbo

## **SQL Script**

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

#### **Used By**

[Process].[WorkflowSteps] [Process].[ShowWorkflowSteps] [Process].[TrackWorkflow]

# **△** Project3

#### **Properties**

Property	Value
Owner	dbo

#### **SQL Script**

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

#### **Used By**

[Project3].[AddForeignKeys]

[Project3].[DropForeignKeys]

[Project3].[LoadBuilding]

[Project3].[LoadBuildingRoom]

[Project3].[LoadClass]

[Project3].[LoadCourse]

[Project3].[LoadDepartment]

[Project3].[LoadInstructor]

[Project3].[LoadModeOfInstruction]

[Project3].[LoadQueensCollegeData]

[Project3].[ShowTableStatusRowCount]

[Project3].[TruncateData]

[Project 3]. [GetFullDepartmentName]

# **.** ∆ Udt

#### **Properties**

Property	Value
Owner	dbo

#### **SQL Script**

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

#### **Used By**

[Udt].[Abbreviation]

[Udt].[ClassTime]

[Udt].[Count]

[Udt].[CourseCode]

[Udt].[CourseDesc]

[Udt].[CourseName]

[Udt].[DateAdded]

[Udt].[Dateof]

[Udt].[DayOfWeek]

[Udt].[DepartmentName]

[Udt].[GeneralDateTime]

[Udt].[GeneralInt]

[Udt].[IndividualProject]

[Udt].[IntValue]

[Udt].[LongDescription]

[Udt].[ModeOfInstruction]

[Udt].[Name]

[Udt].[RoomCode]

[Udt].[Section]

[Udt].[SurrogateKeyInt]

# ♣ Uploadfile

## **Properties**

Property	Value
Owner	dbo

## **SQL Script**

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

#### **Used By**

[Uploadfile].[CurrentSemesterCourseOfferings]

# **△** Utils

## **Properties**

Property	Value
Owner	dbo

## **SQL Script**

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

#### **Used By**

 $[Utils]. [uvw\_FindColumnDefinitionPlusDefaultAndCheckConstraint] \\$ 

# **△** YourLastName

## **Properties**

Property	Value
Owner	dbo

## **SQL Script**

CREATE SCHEMA [YourLastName]
AUTHORIZATION [dbo]
GO