

CREATE LOGIN newperson WITH PASSWORD = 'mypassword';

CREATE USER newperson for LOGIN newperson;

GRANT CONTROL ON DATABASE::MySQLDW to newperson;

EXEC sp\_addrolemember 'largerc', 'newperson'

**Sample ADO.net Connection String**

Server=tcp:{your\_server}.database.windows.net,1433;Database={your\_database};User ID={your\_user\_name};Password={your\_password\_here};Encrypt=True;TrustServerCertificate=False;Connection Timeout=30;

Server=tcp:{your\_server}.database.chinacloudapi.cn,1433;Database={your\_database};User ID={your\_user\_name};Password={your\_password\_here};Encrypt=True;TrustServerCertificate=False;Connection Timeout=30;

**Sample ODBC Connection String**

Driver={SQL Server Native Client 11.0};Server=tcp:{your\_server}.database.windows.net,1433;Database={your\_database};Uid={your\_user\_name};Pwd={your\_password\_here};Encrypt=yes;TrustServerCertificate=no;Connection Timeout=30;

Driver={SQL Server Native Client 11.0};Server=tcp:{your\_server}.database.chinacloudapi.cn,1433;Database={your\_database};Uid={your\_user\_name};Pwd={your\_password\_here};Encrypt=yes;TrustServerCertificate=no;Connection Timeout=30;

**Sample PHP Connection String**

Server: {your\_server}.database.windows.net,1433 \r\nSQL Database: {your\_database}\r\nUser Name: {your\_user\_name}\r\n\r\nPHP Data Objects(PDO) Sample Code:\r\n\r\ntry {\r\n $conn = new PDO ( \"sqlsrv:server = tcp:{your\_server}.database.windows.net,1433; Database = {your\_database}\", \"{your\_user\_name}\", \"{your\_password\_here}\");\r\n $conn->setAttribute( PDO::ATTR\_ERRMODE, PDO::ERRMODE\_EXCEPTION );\r\n}\r\ncatch ( PDOException $e ) {\r\n print( \"Error connecting to SQL Server.\" );\r\n die(print\_r($e));\r\n}\r\n\rSQL Server Extension Sample Code:\r\n\r\n$connectionInfo = array(\"UID\" => \"{your\_user\_name}\", \"pwd\" => \"{your\_password\_here}\", \"Database\" => \"{your\_database}\", \"LoginTimeout\" => 30, \"Encrypt\" => 1, \"TrustServerCertificate\" => 0);\r\n$serverName = \"tcp:{your\_server}.database.windows.net,1433\";\r\n$conn = sqlsrv\_connect($serverName, $connectionInfo);

Server: {your\_server}.database.chinacloudapi.cn,1433 \r\nSQL Database: {your\_database}\r\nUser Name: {your\_user\_name}\r\n\r\nPHP Data Objects(PDO) Sample Code:\r\n\r\ntry {\r\n $conn = new PDO ( \"sqlsrv:server = tcp:{your\_server}.database.chinacloudapi.cn,1433; Database = {your\_database}\", \"{your\_user\_name}\", \"{your\_password\_here}\");\r\n $conn->setAttribute( PDO::ATTR\_ERRMODE, PDO::ERRMODE\_EXCEPTION );\r\n}\r\ncatch ( PDOException $e ) {\r\n print( \"Error connecting to SQL Server.\" );\r\n die(print\_r($e));\r\n}\r\n\rSQL Server Extension Sample Code:\r\n\r\n$connectionInfo = array(\"UID\" => \"{your\_user\_name}\", \"pwd\" => \"{your\_password\_here}\", \"Database\" => \"{your\_database}\", \"LoginTimeout\" => 30, \"Encrypt\" => 1, \"TrustServerCertificate\" => 0);\r\n$serverName = \"tcp:{your\_server}.database.chinacloudapi.cn,1433\";\r\n$conn = sqlsrv\_connect($serverName, $connectionInfo);

**Sample JDBC Connection String**

jdbc:sqlserver://yourserver.database.chinacloudapi.cn:1433;database=yourdatabase;user={your\_user\_name};password={your\_password\_here};encrypt=true;trustServerCertificate=false;hostNameInCertificate=\*.database.chinacloudapi.cn;loginTimeout=30;

CREATE TABLE dbo.T1

( C1 INT IDENTITY(1,1) NOT NULL

, C2 VARCHAR(30) NULL

)

WITH

( DISTRIBUTION = HASH(C2)

, CLUSTERED COLUMNSTORE INDEX

)

;

INSERT INTO dbo.T1

VALUES (NULL);

INSERT INTO dbo.T1

VALUES (NULL);

SELECT \*

FROM dbo.T1;

DBCC PDW\_SHOWSPACEUSED('dbo.T1');

SET IDENTITY\_INSERT dbo.T1 ON;

INSERT INTO dbo.T1

( C1

, C2

)

VALUES (-1,'UNKNOWN')

;

SET IDENTITY\_INSERT dbo.T1 OFF;

SELECT \*

FROM dbo.T1

;

--CREATE TABLE with IDENTITY

CREATE TABLE dbo.T1

( C1 INT IDENTITY(1,1)

, C2 VARCHAR(30)

)

WITH

( DISTRIBUTION = HASH(C2)

, CLUSTERED COLUMNSTORE INDEX

)

;

--Use INSERT..SELECT to populate the table from an external table

INSERT INTO dbo.T1

(C2)

SELECT C2

FROM ext.T1

;

SELECT \*

FROM dbo.T1

;

DBCC PDW\_SHOWSPACEUSED('dbo.T1');

SELECT sm.name

, tb.name

, co.name

, CASE WHEN ic.column\_id IS NOT NULL

THEN 1

ELSE 0

END AS is\_identity

FROM sys.schemas AS sm

JOIN sys.tables AS tb ON sm.schema\_id = tb.schema\_id

JOIN sys.columns AS co ON tb.object\_id = co.object\_id

LEFT JOIN sys.identity\_columns AS ic ON co.object\_id = ic.object\_id

AND co.column\_id = ic.column\_id

WHERE sm.name = 'dbo'

AND tb.name = 'T1'

;

SELECT sm.name

, tb.name

, co.name

, ic.seed\_value

, ic.increment\_value

FROM sys.schemas AS sm

JOIN sys.tables AS tb ON sm.schema\_id = tb.schema\_id

JOIN sys.columns AS co ON tb.object\_id = co.object\_id

JOIN sys.identity\_columns AS ic ON co.object\_id = ic.object\_id

AND co.column\_id = ic.column\_id

WHERE sm.name = 'dbo'

AND tb.name = 'T1'

;

select top 1 \*

from sys.pdw\_loader\_backup\_runs

order by run\_id desc;

EXEC sp\_addrolemember 'largerc', 'loaduser'

SELECT \*

INTO [dbo].[FactInternetSales\_new]

FROM [dbo].[FactInternetSales]

CREATE TABLE [dbo].[FactInternetSales\_new]

WITH

(

DISTRIBUTION = ROUND\_ROBIN

, CLUSTERED COLUMNSTORE INDEX

)

AS

SELECT \*

FROM [dbo].[FactInternetSales]

;

CREATE TABLE FactInternetSales\_new

WITH

(

CLUSTERED COLUMNSTORE INDEX,

DISTRIBUTION = HASH(ProductKey),

PARTITION

(

OrderDateKey RANGE RIGHT FOR VALUES

(

20000101,20010101,20020101,20030101,20040101,20050101,20060101,20070101,20080101,20090101,

20100101,20110101,20120101,20130101,20140101,20150101,20160101,20170101,20180101,20190101,

20200101,20210101,20220101,20230101,20240101,20250101,20260101,20270101,20280101,20290101

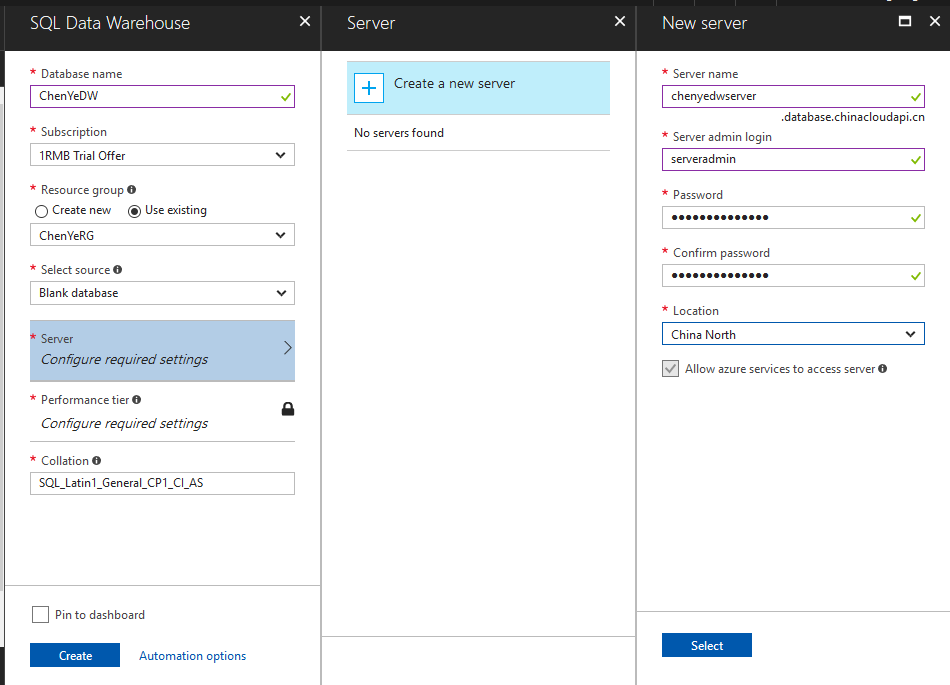
)

)

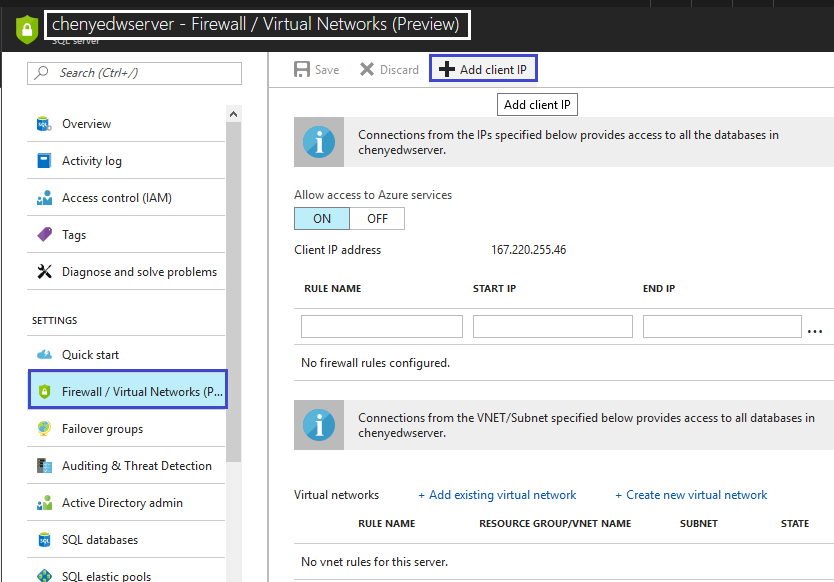
)

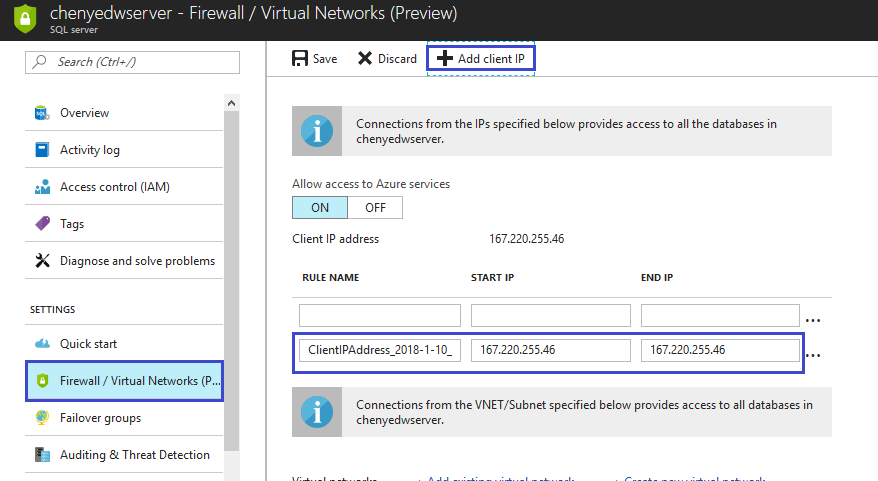
AS SELECT \* FROM FactInternetSales;

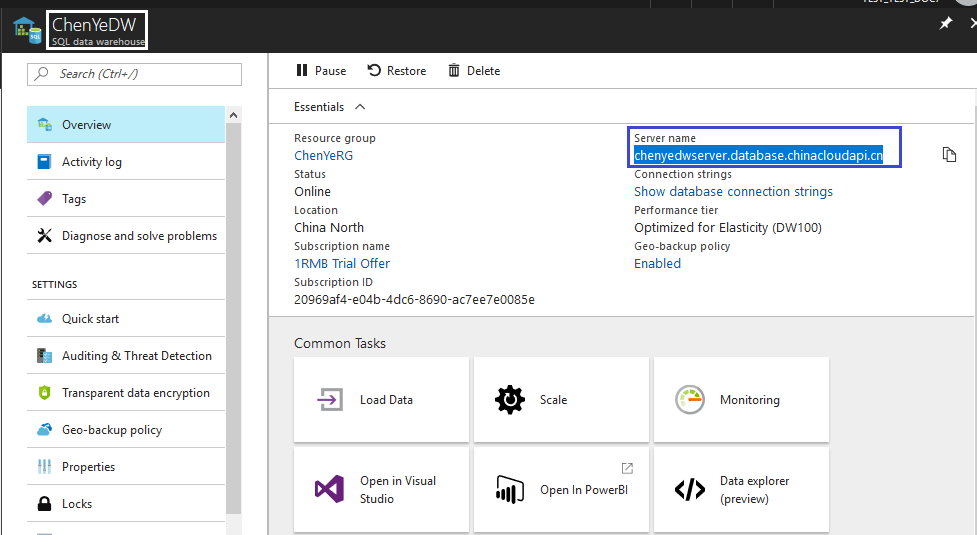
1. Create the blank SQL Data Warehouse

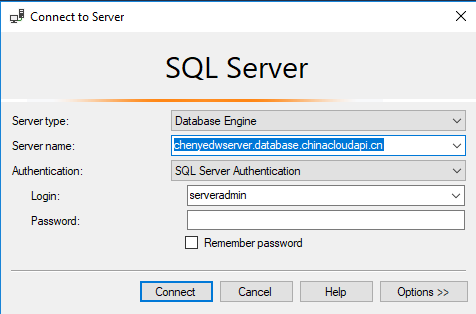


1. Create the server level firewall rule









Open the Master database then run the following SQL:

CREATE LOGIN LoaderRC20 WITH PASSWORD = 'a123STRONGpassword!';

CREATE USER LoaderRC20 FOR LOGIN LoaderRC20;

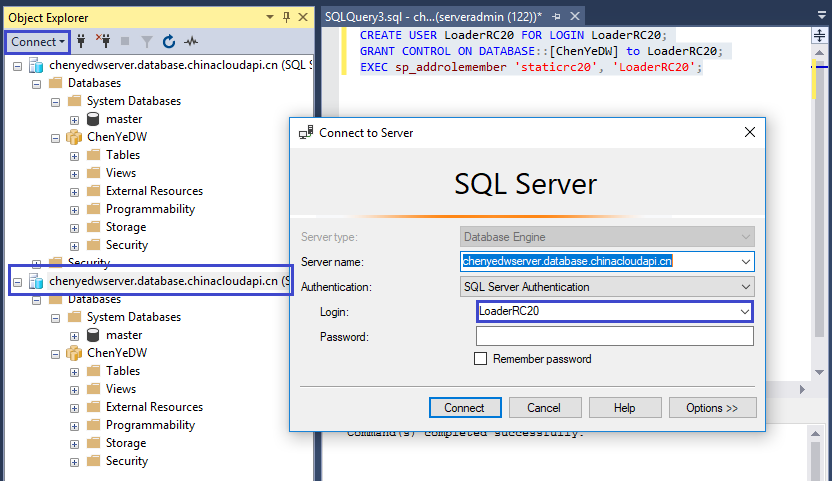
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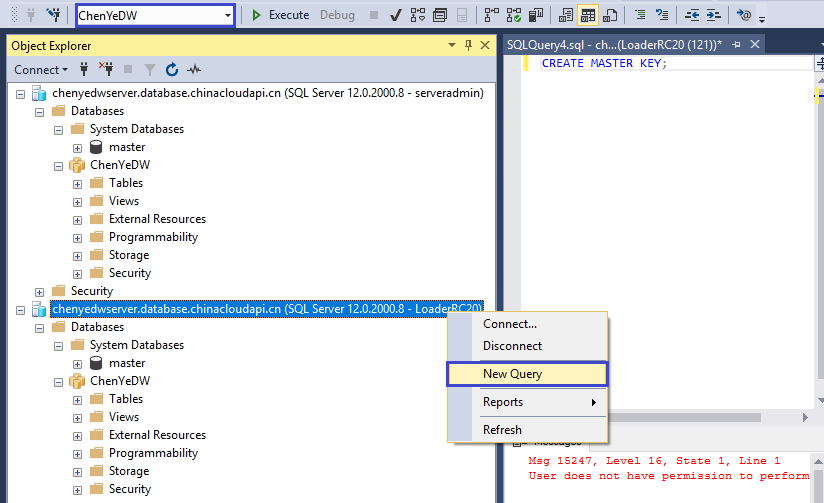
Open the ChenYeDW database then run the following SQL:

CREATE USER LoaderRC20 FOR LOGIN LoaderRC20;

GRANT CONTROL ON DATABASE::[mySampleDataWarehouse] to LoaderRC20;

EXEC sp\_addrolemember 'staticrc20', 'LoaderRC20';





CREATE MASTER KEY;

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CREATE EXTERNAL DATA SOURCE NYTPublic

WITH

(

TYPE = Hadoop,

LOCATION = 'wasbs://2013@nytaxiblob.blob.core.windows.net/'

);

CREATE EXTERNAL FILE FORMAT uncompressedcsv

WITH (

FORMAT\_TYPE = DELIMITEDTEXT,

FORMAT\_OPTIONS (

FIELD\_TERMINATOR = ',',

STRING\_DELIMITER = '',

DATE\_FORMAT = '',

USE\_TYPE\_DEFAULT = False

)

);

CREATE EXTERNAL FILE FORMAT compressedcsv

WITH (

FORMAT\_TYPE = DELIMITEDTEXT,

FORMAT\_OPTIONS ( FIELD\_TERMINATOR = '|',

STRING\_DELIMITER = '',

DATE\_FORMAT = '',

USE\_TYPE\_DEFAULT = False

),

DATA\_COMPRESSION = 'org.apache.hadoop.io.compress.GzipCodec'

);

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CREATE SCHEMA ext;

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CREATE EXTERNAL TABLE [ext].[Date]

(

[DateID] int NOT NULL,

[Date] datetime NULL,

[DateBKey] char(10) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DayOfMonth] varchar(2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DaySuffix] varchar(4) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DayName] varchar(9) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DayOfWeek] char(1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DayOfWeekInMonth] varchar(2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DayOfWeekInYear] varchar(2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DayOfQuarter] varchar(3) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DayOfYear] varchar(3) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[WeekOfMonth] varchar(1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[WeekOfQuarter] varchar(2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[WeekOfYear] varchar(2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[Month] varchar(2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[MonthName] varchar(9) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[MonthOfQuarter] varchar(2) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[Quarter] char(1) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[QuarterName] varchar(9) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[Year] char(4) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[YearName] char(7) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[MonthYear] char(10) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[MMYYYY] char(6) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[FirstDayOfMonth] date NULL,

[LastDayOfMonth] date NULL,

[FirstDayOfQuarter] date NULL,

[LastDayOfQuarter] date NULL,

[FirstDayOfYear] date NULL,

[LastDayOfYear] date NULL,

[IsHolidayUSA] bit NULL,

[IsWeekday] bit NULL,

[HolidayUSA] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL

)

WITH

(

LOCATION = 'Date',

DATA\_SOURCE = NYTPublic,

FILE\_FORMAT = uncompressedcsv,

REJECT\_TYPE = value,

REJECT\_VALUE = 0

);

CREATE EXTERNAL TABLE [ext].[Geography]

(

[GeographyID] int NOT NULL,

[ZipCodeBKey] varchar(10) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NOT NULL,

[County] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[City] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[State] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[Country] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[ZipCode] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL

)

WITH

(

LOCATION = 'Geography',

DATA\_SOURCE = NYTPublic,

FILE\_FORMAT = uncompressedcsv,

REJECT\_TYPE = value,

REJECT\_VALUE = 0

);

CREATE EXTERNAL TABLE [ext].[HackneyLicense]

(

[HackneyLicenseID] int NOT NULL,

[HackneyLicenseBKey] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NOT NULL,

[HackneyLicenseCode] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL

)

WITH

(

LOCATION = 'HackneyLicense',

DATA\_SOURCE = NYTPublic,

FILE\_FORMAT = uncompressedcsv,

REJECT\_TYPE = value,

REJECT\_VALUE = 0

);

CREATE EXTERNAL TABLE [ext].[Medallion]

(

[MedallionID] int NOT NULL,

[MedallionBKey] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NOT NULL,

[MedallionCode] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL

)

WITH

(

LOCATION = 'Medallion',

DATA\_SOURCE = NYTPublic,

FILE\_FORMAT = uncompressedcsv,

REJECT\_TYPE = value,

REJECT\_VALUE = 0

)

;

CREATE EXTERNAL TABLE [ext].[Time]

(

[TimeID] int NOT NULL,

[TimeBKey] varchar(8) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NOT NULL,

[HourNumber] tinyint NOT NULL,

[MinuteNumber] tinyint NOT NULL,

[SecondNumber] tinyint NOT NULL,

[TimeInSecond] int NOT NULL,

[HourlyBucket] varchar(15) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NOT NULL,

[DayTimeBucketGroupKey] int NOT NULL,

[DayTimeBucket] varchar(100) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NOT NULL

)

WITH

(

LOCATION = 'Time',

DATA\_SOURCE = NYTPublic,

FILE\_FORMAT = uncompressedcsv,

REJECT\_TYPE = value,

REJECT\_VALUE = 0

);

CREATE EXTERNAL TABLE [ext].[Trip]

(

[DateID] int NOT NULL,

[MedallionID] int NOT NULL,

[HackneyLicenseID] int NOT NULL,

[PickupTimeID] int NOT NULL,

[DropoffTimeID] int NOT NULL,

[PickupGeographyID] int NULL,

[DropoffGeographyID] int NULL,

[PickupLatitude] float NULL,

[PickupLongitude] float NULL,

[PickupLatLong] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[DropoffLatitude] float NULL,

[DropoffLongitude] float NULL,

[DropoffLatLong] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[PassengerCount] int NULL,

[TripDurationSeconds] int NULL,

[TripDistanceMiles] float NULL,

[PaymentType] varchar(50) COLLATE SQL\_Latin1\_General\_CP1\_CI\_AS NULL,

[FareAmount] money NULL,

[SurchargeAmount] money NULL,

[TaxAmount] money NULL,

[TipAmount] money NULL,

[TollsAmount] money NULL,

[TotalAmount] money NULL

)

WITH

(

LOCATION = 'Trip2013',

DATA\_SOURCE = NYTPublic,

FILE\_FORMAT = compressedcsv,

REJECT\_TYPE = value,

REJECT\_VALUE = 0

);

CREATE EXTERNAL TABLE [ext].[Weather]

(

[DateID] int NOT NULL,

[GeographyID] int NOT NULL,

[PrecipitationInches] float NOT NULL,

[AvgTemperatureFahrenheit] float NOT NULL

)

WITH

(

LOCATION = 'Weather',

DATA\_SOURCE = NYTPublic,

FILE\_FORMAT = uncompressedcsv,

REJECT\_TYPE = value,

REJECT\_VALUE = 0

)

;

-------------

CREATE TABLE [dbo].[Date]

WITH

(

DISTRIBUTION = ROUND\_ROBIN,

CLUSTERED COLUMNSTORE INDEX

)

AS SELECT \* FROM [ext].[Date]

OPTION (LABEL = 'CTAS : Load [dbo].[Date]')

;

CREATE TABLE [dbo].[Geography]

WITH

(

DISTRIBUTION = ROUND\_ROBIN,

CLUSTERED COLUMNSTORE INDEX

)

AS

SELECT \* FROM [ext].[Geography]

OPTION (LABEL = 'CTAS : Load [dbo].[Geography]')

;

CREATE TABLE [dbo].[HackneyLicense]

WITH

(

DISTRIBUTION = ROUND\_ROBIN,

CLUSTERED COLUMNSTORE INDEX

)

AS SELECT \* FROM [ext].[HackneyLicense]

OPTION (LABEL = 'CTAS : Load [dbo].[HackneyLicense]')

;

CREATE TABLE [dbo].[Medallion]

WITH

(

DISTRIBUTION = ROUND\_ROBIN,

CLUSTERED COLUMNSTORE INDEX

)

AS SELECT \* FROM [ext].[Medallion]

OPTION (LABEL = 'CTAS : Load [dbo].[Medallion]')

;

CREATE TABLE [dbo].[Time]

WITH

(

DISTRIBUTION = ROUND\_ROBIN,

CLUSTERED COLUMNSTORE INDEX

)

AS SELECT \* FROM [ext].[Time]

OPTION (LABEL = 'CTAS : Load [dbo].[Time]')

;

CREATE TABLE [dbo].[Weather]

WITH

(

DISTRIBUTION = ROUND\_ROBIN,

CLUSTERED COLUMNSTORE INDEX

)

AS SELECT \* FROM [ext].[Weather]

OPTION (LABEL = 'CTAS : Load [dbo].[Weather]')

;

CREATE TABLE [dbo].[Trip]

WITH

(

DISTRIBUTION = ROUND\_ROBIN,

CLUSTERED COLUMNSTORE INDEX

)

AS SELECT \* FROM [ext].[Trip]

OPTION (LABEL = 'CTAS : Load [dbo].[Trip]')

;