-- Stored Procedure to Populate Date Dimension Table for One Year

-- Assumption: Table name is DimDate with primary key on [Date]

-- Constraint: Only one INSERT statement allowed

CREATE PROCEDURE PopulateDateDimension

@InputDate DATE

AS

BEGIN

DECLARE @StartDate DATE = DATEFROMPARTS(YEAR(@InputDate), 1, 1);

DECLARE @EndDate DATE = DATEFROMPARTS(YEAR(@InputDate), 12, 31);

;WITH DateSequence AS (

SELECT @StartDate AS DateValue

UNION ALL

SELECT DATEADD(DAY, 1, DateValue)

FROM DateSequence

WHERE DATEADD(DAY, 1, DateValue) <= @EndDate

)

INSERT INTO DimDate (Date, Day, Month, MonthName, Quarter, Year, DayOfWeek, WeekOfYear, IsWeekend)

SELECT

DateValue AS Date,

DAY(DateValue) AS Day,

MONTH(DateValue) AS Month,

DATENAME(MONTH, DateValue) AS MonthName,

DATEPART(QUARTER, DateValue) AS Quarter,

YEAR(DateValue) AS Year,

DATENAME(WEEKDAY, DateValue) AS DayOfWeek,

DATEPART(WEEK, DateValue) AS WeekOfYear,

CASE WHEN DATENAME(WEEKDAY, DateValue) IN ('Saturday', 'Sunday') THEN 1 ELSE 0 END AS IsWeekend

FROM DateSequence

OPTION (MAXRECURSION 366);

END

GO