

# Celebal Final Assignment

## Week - 8

### Create Table:

```
CREATE TABLE TimeDimension (  
    SKDate INT PRIMARY KEY,  
    KeyDate DATE,  
    [Date] DATE,  
    CalendarDay INT,  
    CalendarMonth INT,  
    CalendarQuarter INT,  
    CalendarYear INT,  
    DayNameLong VARCHAR(20),  
    DayNameShort VARCHAR(10),  
    DayNumberOfWeek INT,  
    DayNumberOfYear INT,  
    DaySuffix VARCHAR(5),  
    FiscalWeek INT,  
    FiscalPeriod INT,  
    FiscalQuarter INT,  
    FiscalYear INT,  
    FiscalYearPeriod VARCHAR(10)  
);
```

### Stored procedure:

```

CREATE PROCEDURE PopulateTimeDimension
    @InputDate DATE
AS
BEGIN
    SET NOCOUNT ON;

    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 DateValue < @EndDate
    )
    INSERT INTO TimeDimension (
        SKDate, KeyDate, [Date], CalendarDay, CalendarMonth, CalendarQuarter, CalendarYear,
        DayNameLong, DayNameShort, DayNumberOfWeek, DayNumberOfYear, DaySuffix,
        FiscalWeek, FiscalPeriod, FiscalQuarter, FiscalYear, FiscalYearPeriod
    )
    SELECT
        CONVERT(INT, CONVERT(CHAR(8), DateValue, 112)) AS SKDate,
        DateValue AS KeyDate,
        DateValue AS [Date],
        DAY(DateValue) AS CalendarDay,
        MONTH(DateValue) AS CalendarMonth,
        DATEPART(QUARTER, DateValue) AS CalendarQuarter,

```

```

YEAR(DateValue) AS CalendarYear,
DATENAME(WEEKDAY, DateValue) AS DayNameLong,
LEFT(DATENAME(WEEKDAY, DateValue), 3) AS DayNameShort,
DATEPART(WEEKDAY, DateValue) AS DayNumberOfWeek,
DATEPART(DAYOFYEAR, DateValue) AS DayNumberOfYear,
CAST(DAY(DateValue) AS VARCHAR) +
CASE
    WHEN DAY(DateValue) IN (11,12,13) THEN 'th'
    WHEN RIGHT(CAST(DAY(DateValue) AS VARCHAR),1) = '1' THEN 'st'
    WHEN RIGHT(CAST(DAY(DateValue) AS VARCHAR),1) = '2' THEN 'nd'
    WHEN RIGHT(CAST(DAY(DateValue) AS VARCHAR),1) = '3' THEN 'rd'
    ELSE 'th'
END AS DaySuffix,
DATEPART(WEEK, DateValue) AS FiscalWeek,
MONTH(DateValue) AS FiscalPeriod,
DATEPART(QUARTER, DateValue) AS FiscalQuarter,
YEAR(DateValue) AS FiscalYear,
CAST(YEAR(DateValue) AS VARCHAR) + RIGHT('0' + CAST(MONTH(DateValue) AS
VARCHAR), 2) AS FiscalYearPeriod
FROM DateSequence
OPTION (MAXRECURSION 366);
END;

```

**This will insert all rows for dates from 01-Jan-2020 to 31-Dec-2020  
with all derived attributes:**

```
EXEC PopulateTimeDimension '2020-07-14';
```