SQL

* Create Table

CREATE TABLE #TempTable

(

ID INT IDENTITY(1,1),

AnotherId uniqueidentifier Not Null,

Description Varchar(20),

num1 dec(10) default 9999999999,

num2 dec(10,4) default 999999.9999,

num3 dec(10,8) default 99.99999999,

CONSTRAINT [PK\_TempTable] PRIMARY KEY CLUSTERED(ID)

)

CREATE TABLE #TempTable01

(

IdField INT IDENTITY(1,1),

Id int not null,

CONSTRAINT [PK\_TempTable01] PRIMARY KEY CLUSTERED(IdField),

CONSTRAINT [PK\_TempTable01\_TempTable] Foreign Key (Id) References #TempTable(ID)

ON DELETE CASCADE

ON UPDATE CASCADE

)

* Data Types
  + dec, dec(), decimal(p,[s]) numeric == decimal
    - p – precision 1->38 total number of digits in number
    - s – scale (number of decimal places)
  + bigint – 8 Bytes ( -2^63 to 2^63-1 )
  + int – 4 Bytes ( -2^31 to -2^31-1 )
  + smallint – 2 Bytes ( -2^15 to -2^15-1 )
  + tinyint – 1 Byte ( 0 to 255 )
  + bit (Boolean) – 0 or 1
  + money - 8 bytes
  + smallmoney – 4 bytes
  + float
  + real
  + Character Strings
    - char
    - varchar
    - text
  + Unicode Character Strings
    - nchar
    - nvarchar
    - ntext
  + Other
    - cursor
    - timestamp
    - uniqueidentifier ( GUID )
  + date
    - date
    - time
    - smalldatetime
    - datetime
    - datetime2
    - datetimeoffset

| Data type | Format | Range | Accuracy | Bytes |
| --- | --- | --- | --- | --- |
| [time](https://docs.microsoft.com/en-us/sql/t-sql/data-types/time-transact-sql) | hh:mm:ss[.nnnnnnn] | 00:00:00.0000000 through 23:59:59.9999999 | 100 ns | 3 to 5 |
| [date](https://docs.microsoft.com/en-us/sql/t-sql/data-types/date-transact-sql) | YYYY-MM-DD | 0001-01-01 - 9999-12-31 | 1 day | 3 |
| [smalldatetime](https://docs.microsoft.com/en-us/sql/t-sql/data-types/smalldatetime-transact-sql) | YYYY-MM-DD hh:mm:ss | 1900-01-01 - 2079-06-06 | 1 min | 4 |
| [datetime](https://docs.microsoft.com/en-us/sql/t-sql/data-types/datetime-transact-sql) | YYYY-MM-DD hh:mm:ss[.nnn] | 1753-01-01 - 9999-12-31 | 0.00333s | 8 |
| [datetime2](https://docs.microsoft.com/en-us/sql/t-sql/data-types/datetime2-transact-sql) | YYYY-MM-DD hh:mm:ss[.nnnnnnn] | 0001-01-01 00:00:00.0000000 - 9999-12-31 23:59:59.9999999 | 100 nsec | 6 to 8 |
| [datetimeoffset](https://docs.microsoft.com/en-us/sql/t-sql/data-types/datetimeoffset-transact-sql) | YYYY-MM-DD hh:mm:ss[.nnnnnnn] [+|-]hh:mm | 0001-01-01 00:00:00.0000000 - 9999-12-31 23:59:59.9999999 (in UTC) | 100 nsec | 8 to 10 |

* Add Column

ALTER TABLE #TempTable ADD Col1 date default '20170101'

* Alter Column

SP\_RENAME '#TempTable.AnotherId' , 'SlNo', 'COLUMN'

* Add Constraint

ALTER TABLE ADD CONSTRAINT [PK\_TableName] PRIMARY KEY CLUSTERED(ID)

ALTER TABLE Sales.TempSalesReason

ADD CONSTRAINT FK\_TempSales\_SalesReason FOREIGN KEY (TempID)

REFERENCES Sales.SalesReason (SalesReasonID)

ON DELETE CASCADE

ON UPDATE CASCADE;

* Create View
* Create Stored Procedure

CREATE PROCEDURE <Procedure\_Name, sysname, ProcedureName>

-- Add the parameters for the stored procedure here

<@Param1, sysname, @p1> <Datatype\_For\_Param1, , int> = <Default\_Value\_For\_Param1, , 0>,

<@Param2, sysname, @p2> <Datatype\_For\_Param2, , int> = <Default\_Value\_For\_Param2, , 0>

AS

BEGIN

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

-- interfering with SELECT statements.

SET NOCOUNT ON;

-- Insert statements for procedure here

SELECT <@Param1, sysname, @p1>, <@Param2, sysname, @p2>

END

* Execute Stored Procedure

EXEC sp\_name @p1, @p2

* Create Function
* Execute Function
* Looping with a Cursor

--Using Cursor

DECLARE @MyCursor CURSOR;

DECLARE @MyMainId int

DECLARE @Value as MONEY

SET @Value = 10.00

SET @MyCursor = CURSOR FOR SELECT MainId FROM [EntityFrameworkDemo].[dbo].[tblMain]

OPEN @MyCursor

FETCH NEXT FROM @MyCursor INTO @MyMainId

WHILE @@FETCH\_STATUS = 0

BEGIN

UPDATE tblMain SET Amount = ROUND(@Value \* RAND(),2) WHERE MainID = @MyMainId

FETCH NEXT FROM @MyCursor INTO @MyMainId

END;

CLOSE @MyCursor ;

DEALLOCATE @MyCursor;

CREATE DATABASE Recipies;

GO

USE Recipies;

DROP TABLE Recipie;

CREATE TABLE Recipe (

id int identity not null,

name char(100) not null,

CONSTRAINT [PK\_Recipie] PRIMARY KEY CLUSTERED(id)

)

CREATE TABLE Unit(

unit char(20) not null,

CONSTRAINT [PK\_Unit] PRIMARY KEY CLUSTERED(unit)

)

CREATE TABLE Ingredient (

ingredientid int identity not null,

recipeid int not null,

name char(64) not null,

quantity int not null,

unit char(20) not null,

sortrder int default 0,

CONSTRAINT [PK\_Ingredient] PRIMARY KEY CLUSTERED(ingredientid),

CONSTRAINT [FK\_Ingredient\_Recipie] FOREIGN KEY (recipeid) REFERENCES Recipe(id),

CONSTRAINT [FK\_Ingredient\_Unit] FOREIGN KEY (unit) REFERENCES Unit(unit)

)

CREATE TABLE Instruction(

instructionid int identity not null,

recipeid int not null,

description char(200) not null,

sortrder int default 0,

CONSTRAINT [PK\_Instruction] PRIMARY KEY CLUSTERED(instructionid),

CONSTRAINT [FK\_Instruction\_Recipie] FOREIGN KEY (recipeid) REFERENCES Recipe(id),

)