Programming Basics

---1---

go

alter procedure SP\_Random

@num1 int, @num2 int

as begin

select round(rand()\*ABS((@num2 - @num1)) +@num1,0)

end

----check

exec SP\_Random 10, 25

---2---

go

CREATE procedure SP\_GetNumeric

@string nvarchar(200)

AS

BEGIN

DECLARE @pos INT

SET @pos = PATINDEX('%[^0-9]%', @string)

WHILE @pos > 0

BEGIN

SET @string = STUFF(@string, @pos, 1, '' )

SET @pos = PATINDEX('%[^0-9]%', @string )

END

SELECT @string

END

----check

exec SP\_GetNumeric '12B1546alance1000sheet'

---3---

go

Create procedure SP\_atzeret

@Num int

as

begin

declare @i int = 1,

@atzeret int = 1

while @i<=@num

begin

set @atzeret =@atzeret\*@i

set @i = @i+1

End

return @atzeret

End

----check

declare @atzeret

exec @atzeret = SP\_atzeret 3

select @atzeret

---4---

alter procedure sp\_print

@Num int

AS

BEGIN

declare @i int = 0

,@j int = 0

,@str nvarchar(MAX) = ''

while @i<@Num

BEGIN

while @j< @Num

BEGIN

set @str = concat(@str,'\*')

set @j= @j+1

END

print @str

set @i = @i+1

END

END

----check

exec sp\_print 29

--- 5 ---

GO

create function udf\_datepart

(@DateOfBirth date, @part varchar(20))

returns int

AS

BEGIN

declare @dateprt int = 0

select @dateprt = case when @part = 'Year' then DATEDIFF(YY, @DateOfBirth, getdate())

when @part = 'Month' then DATEDIFF(MM, @DateOfBirth, getdate())

when @part = 'Day' then DATEDIFF(DD, @DateOfBirth, getdate())

end

return @dateprt

END

----------or

GO

create procedure udf\_datepart

@DateOfBirth date,

@part varchar(20)

AS

BEGIN

Declare @SQL varchar(Max)

SET @SQL = concat('select DATEDIFF(',@part,', ''',@DateOfBirth,''', getdate())')

print @SQL

exec (@SQL)

END

-----Check

select dbo.udf\_datepart('1989-05-25', 'Year')

exec udf\_datepart '1989-08-25', 'Year'

--- 6 ---

go

create procedure sp\_MostExpensive

as

Begin

select top 1 \*

from Products

order by UnitPrice

end

---7---

go

alter procedure sp\_MostExpensive

as

Begin

with cte as

(select ProductID, SUM(Quantity)q

from [Order Details]

group by ProductID

)

select distinct p.\*, q

from [Order Details] od

join cte on od.ProductID = cte.ProductID

join Products p on od.ProductID = p.ProductID

where q = (select max(q)

from cte)

end

---8---

GO

CREATE PROCEDURE sp\_Products\_in\_ProductCategory

@ProductID INT

AS

BEGIN

select \*

from products

where CategoryID = (select CategoryID

from Products

where ProductID = @ProductID)

END

---check

exec sp\_Products\_in\_ProductCategory 8

---9---

GO

create procedure sp\_ASCIIValue

@string nvarchar(max)

AS

BEGIN

Declare @p int =1,

@FinalPosition int = 0,

@substring nvarchar(10),

@ASCII int = 0

SET @FinalPosition = LEN(@string)

while @p<=@FinalPosition

BEGIN

SET @substring = substring(@string,@p,1)

SET @ASCII = @ASCII + ASCII(@substring)

SET @p = @p+1

END

Select (@ASCII)

END

---check

select ASCII('H')+ ASCII('e') +ASCII('l')+ASCII('l')+ASCII('o')

exec sp\_ASCIIValue 'Hello'