**Процедура вычисления итога, подитога и тд  
вызывается из триггеров, вычисляет по бизнес-правилу скидку пользователя**

USE [Продажа\_товаров]

GO

/\*\*\*\*\*\* Object: StoredProcedure [dbo].[СalculationResult] Script Date: 30.12.2022 1:39:56 \*\*\*\*\*\*/

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

ALTER Procedure [dbo].[СalculationResult]

@Prod as bigint,

@check as bigint,

@coll as float

AS

BEGIN

IF (@coll > 0 AND @check in (SELECT id\_fisc\_check FROM Cheque) AND @Prod in (SELECT id\_product FROM Product))

BEGIN

DECLARE @subtotal as float,

@result as float,

@count\_prod as smallint,-- объявляем переменную для подсчета записей

@bimbim as float,

@avgz as float,

@idBuyer as int

SELECT @count\_prod = (Select count(\*) from [Product-Cheque]

where id\_fisc\_check = @check) -- Кол товарных строк

SELECT @idBuyer = (SELECT id\_buyer FROM Cheque WHERE id\_fisc\_check = @check) --id покупателя

SELECT @bimbim = (SELECT discount FROM Buyer WHERE id\_buyer = @idBuyer ) --Скидка

SELECT @subtotal = ROUND ( (SELECT sum(price\_product\*count\_product) FROM (SELECT \* FROM [Product-Cheque] WHERE id\_fisc\_check = @check) PC join Product P

ON PC.id\_product = P.id\_product), 2) -- подитог

SELECT @result = ROUND ((@subtotal - @subtotal \* (SELECT CASE WHEN @bimbim Is NOT NULL THEN @bimbim ELSE 0 END discount)/100) , 2)--итог

UPDATE dbo.Cheque

SET subtotal = @subtotal,

result = @result,

count\_product\_strings = @count\_prod

WHERE id\_fisc\_check = @check

--обновление скидки пользователя

SELECT @avgz = (SELECT avg(result) FROM Cheque

WHERE id\_buyer IS NOT NULL AND id\_buyer = @idBuyer

GROUP By id\_buyer) --ср значение итоговой суммы одного чека с учетом скидок

IF (@avgz < 500)

BEGIN

UPDATE dbo.Buyer

SET discount = NULL

WHERE id\_buyer = @idBuyer

END

ELSE

BEGIN

IF (@avgz < 1000)

BEGIN

UPDATE dbo.Buyer

SET discount = 2

WHERE id\_buyer = @idBuyer

END

ELSE

BEGIN

IF (@avgz < 5000)

BEGIN

UPDATE dbo.Buyer

SET discount = 5

WHERE id\_buyer = @idBuyer

END

ELSE

BEGIN

IF (@avgz < 25000)

BEGIN

UPDATE dbo.Buyer

SET discount = 10

WHERE id\_buyer = @idBuyer

END

ELSE

BEGIN

IF (@avgz < 50000)

BEGIN

UPDATE dbo.Buyer

SET discount = 15

WHERE id\_buyer = @idBuyer

END

ELSE

BEGIN

UPDATE dbo.Buyer

SET discount = 20

WHERE id\_buyer = @idBuyer

END

END

END

END

END

RETURN 1

END

ELSE

BEGIN

RETURN 0

END

END

**Процедура вычисления сдачи с учетом введения меньше наличных чем надо.  
вызывается из триггеров**

USE [Продажа\_товаров]

GO

/\*\*\*\*\*\* Object: StoredProcedure [dbo].[СalculationChange] Script Date: 28.12.2022 18:35:10 \*\*\*\*\*\*/

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

ALTER PROCEDURE [dbo].[СalculationChange]

@enter as float,

@check as bigint,

@payment as tinyint,

@result as float

AS

BEGIN

IF (@enter > 0

AND @result > 0

AND @check in (SELECT id\_fisc\_check FROM Cheque)

AND @payment in (SELECT id\_payment FROM Cheque))

BEGIN

DECLARE @change as float

IF ( @payment = 1 )

BEGIN

SELECT @change = ROUND ((@enter - @result) , 2)

IF (@change IS NULL)

BEGIN

SELECT @change = 0

END

IF ( @change > 0 )

BEGIN

UPDATE dbo.Cheque

SET change = @change

WHERE id\_fisc\_check = @check

RETURN 1

END

ELSE

BEGIN

UPDATE dbo.Cheque

SET change = NULL

WHERE id\_fisc\_check = @check

RETURN 1

END

END

IF (@payment = 2)

BEGIN

SELECT @enter = @result

SELECT @change = 0

UPDATE dbo.Cheque

SET change = @change,

entered = @enter

WHERE id\_fisc\_check = @check

RETURN 1

END

END

BEGIN

RETURN 0

END

END

**Процедура выставления статуса оплаты и вызывает процедуру удаления проданных товаров если статус “оплачен” по завершении оплаты ставится дата и время совершения сделки (бизнес-правило).  
вызывается из триггера**

USE [Продажа\_товаров]

GO

/\*\*\*\*\*\* Object: StoredProcedure [dbo].[UpdateStatus] Script Date: 30.12.2022 1:37:04 \*\*\*\*\*\*/

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

ALTER PROCEDURE [dbo].[UpdateStatus]

@check as bigint

AS

BEGIN

IF (@check in (SELECT id\_fisc\_check FROM Cheque))

BEGIN

DECLARE @payment as tinyint,

@delWarehose as int

SELECT @payment = (SELECT id\_payment FROM Cheque WHERE id\_fisc\_check = @check )

IF (@payment = 1)

BEGIN

IF ((SELECT change FROM Cheque WHERE id\_fisc\_check = @check) IS NULL)

BEGIN

UPDATE dbo.Cheque

SET id\_status = 2

WHERE id\_fisc\_check = @check

RETURN 1

END

ELSE

BEGIN

UPDATE dbo.Cheque

SET id\_status = 3

WHERE id\_fisc\_check = @check

IF((SELECT date\_time FROM Cheque WHERE id\_fisc\_check = @check)IS null)

BEGIN

UPDATE dbo.Cheque

SET date\_time = GETDATE()

WHERE id\_fisc\_check = @check

END

RETURN 1

EXEC @delWarehose = dbo.DelitedFromWarehose @check

RETURN @delWarehose

END

END

ELSE

BEGIN

IF ((SELECT entered FROM Cheque WHERE id\_fisc\_check = @check) IS NOT NULL)

BEGIN

UPDATE dbo.Cheque

SET id\_status = 3

WHERE id\_fisc\_check = @check

IF((SELECT date\_time FROM Cheque WHERE id\_fisc\_check = @check)IS null)

BEGIN

UPDATE dbo.Cheque

SET date\_time = GETDATE()

WHERE id\_fisc\_check = @check

END

RETURN 1

EXEC @delWarehose = dbo.DelitedFromWarehose @check

RETURN @delWarehose

END

ELSE

BEGIN

UPDATE dbo.Cheque

SET id\_status = 2

WHERE id\_fisc\_check = @check

RETURN 1

END

END

END

ELSE

BEGIN

RETURN 0

END

END

**Процедура, которая удаляет купленные товары со склада**

USE [Продажа\_товаров]

GO

/\*\*\*\*\*\* Object: StoredProcedure [dbo].[DelitedFromWarehose] Script Date: 28.12.2022 18:11:30 \*\*\*\*\*\*/

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

ALTER PROCEDURE [dbo].[DelitedFromWarehose]

@check as bigint

AS

BEGIN

If(@check in (SELECT id\_fisc\_check FROM [Product-Cheque]))

BEGIN

DECLARE @id\_prod AS bigint

DECLARE MyCursor CURSOR FOR --создание курсора

SELECT id\_product FROM [Product-Cheque] WHERE id\_fisc\_check = @check

OPEN MyCursor --открытие курсора

FETCH next FROM MyCursor INTO @id\_prod --переход к следующей записи в крсоре

WHILE @@FETCH\_STATUS = 0

BEGIN

EXEC('

DECLARE @count\_on\_sklad AS float,

@count\_prod AS float

SELECT @count\_on\_sklad = (SELECT count\_product\_on\_warehose FROM Product P

JOIN [Product-Cheque] PC ON P.id\_product = PC.id\_product WHERE id\_fisc\_check = '+ @check + ' AND P.id\_product = '+ @id\_prod + ')

SELECT @count\_prod = (SELECT count\_product FROM [Product-Cheque] P WHERE id\_fisc\_check = '+ @check + ' AND id\_product = '+ @id\_prod + ')

IF (@count\_on\_sklad >= @count\_prod AND @count\_on\_sklad > 0)

BEGIN

UPDATE dbo.Product

SET count\_product\_on\_warehose = @count\_on\_sklad - @count\_prod

WHERE id\_product = '+ @id\_prod + '

END

')

FETCH next FROM MyCursor INTO @id\_prod --переход к следующей записи в крсоре

END

CLOSE MyCursor --закрытие курсора

DEALLOCATE MyCursor --удаление курсора

RETURN 5

END

ELSE

BEGIN

RETURN -1

END

END

**Далее для приложения бд**

**Создание нового чека**

USE Продажа\_товаров

GO

ALTER PROCEDURE CreateNewCheque

@id\_cashier as int,

@id\_reg\_lent as bigint,

@id\_cash\_register as int

AS

BEGIN

If(@id\_cashier in (SELECT id\_cashier FROM Cashier)

AND @id\_reg\_lent in (SELECT id\_reg\_lent FROM ELKZ\_lent)

AND @id\_cash\_register in (SELECT id\_cash\_register FROM Cash\_register))

BEGIN

INSERT INTO Cheque (date\_time, id\_cashier, id\_reg\_lent, id\_cash\_register)

VALUES (@id\_cashier, @id\_reg\_lent, @id\_cash\_register)

RETURN 3

END

ELSE

BEGIN

RETURN 0

END

END

**Добавление покупателя в чек**

USE Продажа\_товаров

GO

CREATE PROCEDURE AddChequeByer

@id\_cheque as bigint,

@id\_buyer as int

AS

BEGIN

If(@id\_buyer in (SELECT id\_buyer FROM Buyer))

BEGIN

UPDATE Cheque

SET id\_buyer = @id\_buyer

WHERE @id\_cheque = id\_fisc\_check

RETURN 1

END

ELSE

BEGIN

RETURN 0

END

END

**Добавление продуктов в чек**

USE [Продажа\_товаров]

GO

/\*\*\*\*\*\* Object: StoredProcedure [dbo].[AddChequeProducts] Script Date: 28.12.2022 17:55:22 \*\*\*\*\*\*/

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

ALTER PROCEDURE [dbo].[AddChequeProducts]

@id\_cheque as bigint,

@id\_product as bigint,

@count\_prod as float

AS

BEGIN

If(@id\_cheque in (SELECT id\_fisc\_check FROM Cheque) AND @id\_product in (SELECT id\_product FROM Product))

BEGIN

INSERT INTO [Product-Cheque] (id\_fisc\_check, id\_product, count\_product)

VALUES (@id\_cheque, @id\_product, @count\_prod)

RETURN 3

END

ELSE

BEGIN

RETURN 0

END

END

INSERT INTO [Product-Cheque] (id\_fisc\_check, id\_product, count\_product)

VALUES ("+ id\_cheque + ", "+ prod + ", "+ count + @")

**Добавление в чек типа оплаты**

USE Продажа\_товаров

GO

CREATE PROCEDURE AddChequePayment

@id\_cheque AS bigint,

@name\_payment as nvarchar(11)

AS

BEGIN

If(@name\_payment in (SELECT type\_payment FROM Payment) AND @id\_cheque in (SELECT id\_fisc\_check FROM Cheque))

BEGIN

DECLARE @id\_payment as int

IF (@name\_payment = 'Наличные')

BEGIN

SELECT @id\_payment = 1

END

ELSE

BEGIN

SELECT @id\_payment = 2

END

UPDATE Cheque

SET id\_payment = @id\_payment

WHERE id\_fisc\_check = @id\_cheque

RETURN 1

END

ELSE

BEGIN

RETURN 0

END

END

**Ввод кассиром суммы внесенных наличных в кассу**

USE [Продажа\_товаров]

GO

/\*\*\*\*\*\* Object: StoredProcedure [dbo].[AddChequeEnteredCash] Script Date: 28.12.2022 19:00:38 \*\*\*\*\*\*/

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

ALTER PROCEDURE [dbo].[AddChequeEnteredCash]

@id\_cheque AS bigint,

@entered as nvarchar(11)

AS

BEGIN

If(@id\_cheque in (SELECT id\_fisc\_check FROM Cheque))

BEGIN

If((SELECT id\_status FROM Cheque WHERE id\_fisc\_check = @id\_cheque) = 2)

BEGIN

UPDATE Cheque

SET entered = @entered

WHERE id\_fisc\_check = @id\_cheque

RETURN 1

END

ELSE

BEGIN

RETURN -3

END

END

ELSE

BEGIN

RETURN 0

END

END

**Процедура выводит всю нужную для формирования чека для пользователя**

USE Продажа\_товаров

GO

ALTER PROCEDURE AllChequeBuyer

@id\_buyer AS int

AS

BEGIN

If(@id\_buyer in (SELECT id\_buyer FROM Buyer))

BEGIN

SELECT Com.name\_company,

Com.address\_company,

Reg.name\_cash\_register,

Com.INN,

Com.reg\_nom,

B.id\_buyer,

Ch.id\_fisc\_check,

Ch.date\_time,

Ch.count\_product\_strings,

Ch.subtotal,

cast(B.discount as varchar) + '%' discount,

Ch.result,

PS.payment\_status,

Pay.type\_payment,

Ch.entered,

Ch.change,

Ch.count\_product\_strings,

Work.days\_work,

Work.time\_start,

Work.time\_stop,

E.id\_reg\_lent,

E.num\_KPK,

E.value\_KPK,

Ch.date\_time

FROM Cashier Cash JOIN Cheque Ch ON Cash.id\_cashier = Ch.id\_cashier

JOIN Company Com ON Com.id\_company = Cash.id\_company

JOIN Work\_time Work ON Work.id\_work\_time = Com.id\_work\_time

JOIN Buyer B ON B.id\_buyer = Ch.id\_buyer

JOIN ELKZ\_lent E ON E.id\_reg\_lent = Ch.id\_reg\_lent

JOIN Payment Pay ON Pay.id\_payment = Ch.id\_payment

JOIN Payment\_status PS ON PS.id\_status = Ch.id\_status

JOIN Cash\_register Reg ON Reg.id\_cash\_register = Ch.id\_cash\_register

WHERE B.id\_buyer = @id\_buyer

SELECT PC.id\_fisc\_check,

PC.id\_product,

PC.count\_product,

Un.unit\_of\_measurement,

Prod.name\_product,

Prod.count\_product\_on\_warehose,

Prod.price\_product,

Kat.name\_kategory

FROM [Product-Cheque] PC JOIN Product Prod ON Prod.id\_product = PC.id\_product

JOIN Kotegory Kat ON Kat.id\_kategory = Prod.id\_kategory

JOIN Unit\_of\_measurement Un ON Un.id\_unit\_of\_measurement = Prod.id\_unit\_of\_measurement

WHERE PC.id\_fisc\_check in (SELECT id\_fisc\_check FROM Cheque WHERE id\_buyer = @id\_buyer)

RETURN 4

END

ELSE

BEGIN

RETURN 0

END

END

**Удаление некоторого количества товара из чека**

USE Продажа\_товаров

GO

CREATE PROCEDURE DelProductFromCheque

@id\_cheque AS bigint,

@id\_product AS bigint,

@count as float

AS

BEGIN

If(@id\_cheque in (SELECT id\_fisc\_check FROM [Product-Cheque])

AND @count > 0

AND @id\_product in (SELECT id\_product FROM [Product-Cheque]))

BEGIN

IF (@count < (SELECT count\_product FROM [Product-Cheque] WHERE id\_fisc\_check = @id\_cheque AND @id\_product = id\_product))

BEGIN

UPDATE [Product-Cheque]

SET count\_product = count\_product - @count

WHERE id\_fisc\_check = @id\_cheque AND @id\_product = id\_product

RETURN 1

END

ELSE

BEGIN

DELETE FROM [Product-Cheque]

WHERE id\_fisc\_check = @id\_cheque AND @id\_product = id\_product

RETURN 2

END

END

ELSE

BEGIN

RETURN 0

END

END

**Отмена созданного чека (удаление доступно только при условии если покупатель не произвел оплату)**

USE Продажа\_товаров

GO

CREATE PROCEDURE DelitedCheque

@cheque as bigint

AS

BEGIN

IF(@cheque in (SELECT id\_fisc\_check FROM Cheque))

BEGIN

DECLARE @id\_stat as int

SELECT @id\_stat = (SELECT id\_status FROM Cheque WHERE id\_fisc\_check = @cheque)

IF (@id\_stat = 2 OR @id\_stat IS NULL)

BEGIN

IF (@id\_stat = 2 OR @id\_stat IS NULL)

BEGIN

IF (@id\_stat = 2)

BEGIN

DELETE FROM [Product-Cheque]

WHERE @cheque = id\_fisc\_check

END

DELETE FROM Cheque

WHERE @cheque = id\_fisc\_check

RETURN 2

END

ELSE

BEGIN

RETURN -2

END

END

ELSE

BEGIN

RETURN 0

END

END

END