

Création de la procédure stockée

```
CREATE PROCEDURE [dbo].[PS_Insertion_MouvementStock]
    (@productID int ,
    @qteMouvement int ,
    @typeMouvement char(2) ,
    @libelleMouvement nvarchar(100)
    )
AS
BEGIN
    insert into [MouvementDeStock]
    (productid,qtemouvement,typemouvement,libellemouvement)
    values(@productid,@qtemouvement,@typemouvement,@libellemouvement)
END
```

Création d'un Trigger interdisant la modification

Seules les opérations d'ajout sont autorisées sur la table des mouvements

```
CREATE TRIGGER [dbo].[InterdireUpdateDelete]
    ON [dbo].[MouvementDeStock]
    AFTER DELETE,UPDATE
AS
BEGIN;
    throw 60002, 'Opérations Delete et Update interdites',1;
END
GO
```

Création du déclencheur ajout ligne détail Version Curseur

```
CREATE TRIGGER [dbo].[TG_AjouterLigne]
ON [dbo].[Order Details]
AFTER Insert
AS
BEGIN

    declare @productid int,@quantity int,@orderId int
    declare @libelle varchar(255)
    Declare lignedscde cursor
    for select orderid,productid,Quantity
    from inserted
    for read only

    open lignedscde

    FETCH NEXT FROM lignedscde
    INTO @orderId,@productId,@quantity
    while (@@FETCH_STATUS=0)
    Begin
        update products set UnitsReserved+=@quantity
        where ProductID = @productid;
        set @libelle = 'Insertion nouvelle ligne de commande ' + Cast(@orderid as
        varchar(6));

        EXEC [dbo].[PS_Insertion_MouvementStock]
            @productID = @productid,
            @qteMouvement = @quantity,
            @typeMouvement = 'CC',
            @libelleMouvement = @libelle
        FETCH NEXT FROM lignedscde
        INTO @orderId,@productId,@quantity
        end

    close lignedscde
    Deallocate lignedscde

END
GO

ALTER TABLE [dbo].[Order Details] ENABLE TRIGGER [TG_AjouterLigne]
GO
```

Déclencheur modification ligne

```
ALTER TRIGGER [dbo].[TG_ModifierLigne]
ON [dbo].[Order Details]
AFTER Update
AS
BEGIN

    declare @productid int,@quantity int,@orderId int
    declare @quantityApres int,@delta int
    declare @libelle varchar(255)
    Declare lignedscde cursor
    for select orderid,productid,Quantity
    from deleted
    for read only

    Declare lignedscdeApres cursor
    for select Quantity
    from Inserted
    for read only
    /*
    Pas de modification de la clé
    */
    if (UPDATE(orderid) or update(productid))
    begin;
        throw 60002,'Modification clé proscrite',1;
    end

    open lignedscde
    open lignedscdeApres

    FETCH NEXT FROM lignedscde
    INTO @orderId,@productId,@quantity
    while (@@FETCH_STATUS=0)
    Begin
        FETCH NEXT FROM lignedscdeApres
        INTO @quantityApres
        set @delta = @quantityApres-@quantity;

        update products set UnitsReserved+=@delta
        where ProductID = @productId;
        set @libelle = 'Modification ligne de commande ' + Cast(@orderid as varchar(6));
        EXEC [dbo].[PS_Insertion_MouvementStock]
            @productID = @productId,
            @qteMouvement = @delta,
            @typeMouvement = 'CC',
            @libelleMouvement = @libelle
        FETCH NEXT FROM lignedscde
        INTO @orderId,@productId,@quantity
    end

    close lignedscde
    Deallocate lignedscde
    close lignedscdeApres
    Deallocate lignedscdeApres

END
```

Déclencheur suppression ligne

```
CREATE TRIGGER [dbo].[TG_SupprimerLigne]
ON [dbo].[Order Details]
AFTER Delete
AS
BEGIN

    declare @productid int,@quantity int,@orderId int
    declare @libelle varchar(255)
    Declare lignede cursor
    for select orderid,productid,Quantity
    from deleted
    for read only

    open lignede

    FETCH NEXT FROM lignede
    INTO @orderId,@productId,@quantity
    while (@@FETCH_STATUS=0)
    Begin
        update products set UnitsReserved-=@quantity
        where ProductID = @productId;
        set @quantity = @quantity*-1;
        set @libelle = 'Suppression ligne de commande ' + Cast(@orderid as varchar(6));
        EXEC [dbo].[PS_Insertion_MouvementStock]
            @productID = @productId,
            @qteMouvement = @quantity,
            @typeMouvement = 'CC',
            @libelleMouvement = @libelle
        FETCH NEXT FROM lignede
        INTO @orderId,@productId,@quantity
    end

    close lignede
    Deallocate lignede

END
GO

ALTER TABLE [dbo].[Order Details] ENABLE TRIGGER [TG_SupprimerLigne]
GO
```