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--Câu 1:

--Tạo user

create login U\_Alice with password ='U\_Alice'

create user U\_Alice for login U\_Alice

create login U\_Bob with password ='U\_Bob'

create user U\_Bob for login U\_Bob

--Tạo role:

create role R\_NhanVien

create role R\_QuanLy

--Gán quyền

--Gán quyền cho R\_NhanVien

grant insert, update,select on T\_HoaDon to R\_NhanVien

grant insert,select on T\_SanPham to R\_NhanVien

--Gán role

alter role R\_NhanVien add member U\_Alice

--Gán quyền cho R\_QuanLy

grant update,delete on T\_SanPham to R\_QuanLy

--Gán role

alter role R\_NhanVien add member U\_Bob

grant select,insert,update,delete on T\_CauHinh to U\_Bob

--Kế thừa

EXEC sp\_addrolemember 'R\_NhanVien', 'R\_QuanLy'

--Gán quyền thực thi cho role

GRANT EXECUTE ON SP\_ThanhToan TO R\_NhanVien

--Câu 2:

--HDD1: Audit

use master

create server audit audit\_ck\_test

to file(FILEPATH='D:\Kì 2\_Năm 3\_2022\_2023\Bảo mật cơ sở dữ liệu\AUDIT')

--Bật server audit

alter server audit audit\_ck\_test

with(state = on)

use THICK

create database audit specification GS\_TEST

for server audit audit\_ck\_test

add(select,delete on T\_SANPHAM by dbo)

with (state = on)

select \* from T\_SANPHAM

--xem

select subject = server\_principal\_name +'\'+database\_principal\_name,event\_time,action\_id,database\_name+'.'+SCHEMA\_NAME+'.'+OBJECT\_NAME as Object

,statement

,\*

from sys.fn\_get\_audit\_file('D:\Kì 2\_Năm 3\_2022\_2023\Bảo mật cơ sở dữ liệu\AUDIT\\*',NULL,NULL)

--Tạp trigger

--Tao bang xem trigger

create table Audit\_R\_D\_T\_SANPHAM(

id int primary key identity(1,1),

ThoiGian DateTime default getdate(),

EvenName varchar(10),

TenMay sysname default suser\_name(),

MASP int null,

TENSP nvarchar(100) null,

SOLUONG int null,

DonGia DECIMAL(10, 2) null

)

--Trigger

create trigger R\_I\_T\_SANPHAM1

on T\_SANPHAM

for insert

as

insert into Audit\_R\_D\_T\_SANPHAM(EvenName,MASP,TENSP,SOLUONG,DonGia)

select 'insert' ,i.MASP,i.TENSP,i.SOLUONG,i.DonGia

from inserted as i

select \* from T\_SANPHAM

select \* from Audit\_R\_D\_T\_SANPHAM

create table Audit\_D\_T\_SANPHAM(

id int primary key identity(1,1),

ThoiGian DateTime default getdate(),

EvenName varchar(10),

TenMay sysname default suser\_name(),

MASP int null,

TENSP nvarchar(100) null,

SOLUONG int null,

DonGia DECIMAL(10, 2) null

)

create trigger Update\_Delete\_SanPham\_1

on T\_SANPHAM

for delete, update

as

if(exists(select \* from inserted))

begin

insert into Audit\_D\_T\_SANPHAM(EvenName,MASP,TENSP,SOLUONG,DonGia)

SELECT 'UPDATE', i.MASP, i.TENSP,i.SOLUONG, i.DonGia

FROM inserted AS i JOIN

deleted AS d on i.MASP = d.MASP

END

else

begin

insert into Audit\_D\_T\_SANPHAM(EvenName,MASP,TENSP,SOLUONG,DonGia)

SELECT 'delete', d.MASP, d.TENSP, d.SOLUONG,d.DonGia

from deleted as d

end

--Thực hiện lệnh

delete from T\_CAUHINH where MASP=2

delete from T\_SANPHAM where MASP=2

select \* from T\_SANPHAM

select \* from Audit\_D\_T\_SANPHAM

--Câu 3:

--Chèn cột mã hóa số lượng vào bảng

alter table T\_SANPHAM add SOLUONG\_MaHoa varbinary(MAX)

--Cập nhật mã hóa cột số lượng

update T\_SANPHAM set SOLUONG\_MaHoa = EncryptByPassPhrase('20054191', convert(varchar(100),[SOLUONG]))

--Xoa cot chua du lieu bản rõ

alter table T\_SANPHAM drop column [SOLUONG]

--Xem

select \* from T\_SANPHAM