

ĐÁP ÁN ĐỀ 1 VÀ ĐỀ 3

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--ĐỀ 1
--CÂU 2.1
CREATE TRIGGER TRG_PH_INS ON PHATHANH
FOR INSERT,UPDATE
AS
    BEGIN
        DECLARE @NGSINH SMALLDATETIME, @NGPH SMALLDATETIME
        SELECT @NGSINH=NgSinh, @NGPH= NgayPH FROM INSERTED INS, TACGIA_SACH TGS,
TACGIA TG
        WHERE INS.MaSach=TGS.MaSach AND TGS.MaTG=TG.MaTG

        IF( @NGSINH > @NGPH)
        BEGIN
            PRINT 'NGAY PHAT HANH SACH PHAI LON HON NGAY SINH TAC GIA'
            ROLLBACK TRAN
        END
        ELSE PRINT 'THANH CONG'
    END

CREATE TRIGGER TRG_TG_UP ON TACGIA
FOR UPDATE
AS
    BEGIN
        DECLARE @MATG CHAR(5), @NGSINH SMALLDATETIME
        SELECT @MATG=MatG, @NGSINH=NgSinh FROM INSERTED

        IF( @NGSINH > ANY( SELECT NgayPH
FROM PHATHANH PH, TACGIA_SACH TGS
WHERE MatG=@MATG AND
TGS.MaSach=PH.MaSach))
        BEGIN
            PRINT 'NGAY SINH TAC GIA PHAI NHO HON NGAY PHAT HANH SACH'
            ROLLBACK TRAN
        END
        ELSE PRINT 'THANH CONG'
    END

--CÂU 2.2
CREATE TRIGGER SACH_PHATHANH_TheLoai_NhaXuatBan ON SACH
FOR UPDATE
AS
    BEGIN
        DECLARE @TheLoai varchar(25), @NhaXuatBan varchar(25), @MaSach char(5)

        SELECT @TheLoai=TheLoai, @MaSach=MaSach
        FROM INSERTED

        IF (@TheLoai='GIAOKHOA')
        BEGIN
            SELECT @NhaXuatBan=NhaXuatBan
            FROM PHATHANH
            WHERE MaSach=@MaSach

            IF (@NhaXuatBan <> 'GIAODUC')
            BEGIN
                PRINT 'LOI: SACH GIAO KHOA PHAI DO NHA XUAT BAN GIAO DUC PHAT HANH'
                ROLLBACK TRANSACTION
            END
        END
    END
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END
END

END

CREATE TRIGGER TRG_PH_INS_UP ON PHATHANH
FOR INSERT, UPDATE
AS
BEGIN
    DECLARE @NXB VARCHAR(20), @TheLoai VARCHAR(20)
    SELECT @NXB=NhaXuatBan, @TheLoai=TheLoai FROM INSERTED INS, SACH S
    WHERE INS.MaSach=S.MaSach

    IF( @TheLoai='Giao khoa' AND @NXB <> 'Giao duc')
        BEGIN
            PRINT ' SACH GIAO KHOA PHAI DO NXB GIAO DUC PHAT HANH'
            ROLLBACK TRAN
        END
    ELSE PRINT 'THANH CONG'
END

--CÂU 3
--3.1
SELECT TG.MaTG, HoTen, SoDT
FROM TACGIA TG, TACGIA_SACH TGS, PHATHANH PH, SACH S
WHERE TheLoai='Van hoc' AND NhaXuatBan='Tre' AND TGS.MaSach=PH.MaSach
AND TGS.MaSach=S.MaSach AND TGS.MaTG=TG.MaTG

--3.2
SELECT NhaXuatBan
FROM PHATHANH, SACH
WHERE PHATHANH.MaSach=SACH.MaSach
GROUP BY NhaXuatBan
HAVING COUNT(DISTINCT (TheLoai)) >= ALL ( SELECT COUNT(DISTINCT (TheLoai))
FROM
PHATHANH, SACH
WHERE
PHATHANH.MaSach=SACH.MaSach
GROUP BY
NhaXuatBan )

--3.3
SELECT NhaXuatBan, TGS.MaTG, HOTEN
FROM TACGIA TG, TACGIA_SACH TGS, PHATHANH PH1
WHERE PH1.MaSach=TGS.MaSach AND TGS.MaTG=TG.MaTG
GROUP BY NhaXuatBan, TGS.MaTG, HOTEN
HAVING COUNT(*) >= ALL ( SELECT COUNT (*)
FROM TACGIA TG, TACGIA_SACH TGS, PHATHANH PH2
WHERE PH2.MaSach=TGS.MaSach AND TGS.MaTG=TG.MaTG
GROUP BY NhaXuatBan, TGS.MaTG)

AND PH2.NhaXuatBan=PH1.NhaXuatBan

--ĐỀ3
CREATE DATABASE DE3
USE DE3
CREATE TABLE DOCGIA
(

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        MaDG char(5) NOT NULL PRIMARY KEY,
        HoTen varchar(30),
        NgaySinh smalldatetime,
        DiaChi varchar(30),
        SoDT varchar(15)
    )
CREATE TABLE SACH
(
    MaSach char(5) NOT NULL PRIMARY KEY,
    TenSach varchar(25),
    TheLoai varchar(25),
    NhaXuatBan varchar(30)
)
CREATE TABLE PHIEUTHUE
(
    MaPT char(5) NOT NULL PRIMARY KEY,
    MaDG char(5) FOREIGN KEY REFERENCES DOCGIA(MaDG),
    NgayThue smalldatetime,
    NgayTra smalldatetime,
    SoSachThue int
)
CREATE TABLE CHITIET_PT
(
    MaPT char(5) NOT NULL FOREIGN KEY REFERENCES PHIEUTHUE(MaPT),
    MaSach char(5) NOT NULL FOREIGN KEY REFERENCES SACH(MaSach)
)
ALTER TABLE CHITIET_PT
ADD PRIMARY KEY (MaPT, MaSach)

--CÂU 2
--2.1
-- CÁCH 1
ALTER TABLE PHIEUTHUE ADD CONSTRAINT CK_PT CHECK (NGAYTRA-NGAYTHUE <10)

--          THÊM-----XÓA-----SỬA
--PHIEUTHUE      +          -          +(NGAYTRA, NGAYTHUE)

CREATE TRIGGER TRG_PT ON PHIEUTHUE
FOR INSERT, UPDATE
AS
    BEGIN
        DECLARE @NGAYTHUE SMALLDATETIME, @NGAYTRA SMALLDATETIME
        SELECT @NGAYTHUE=NgayThue, @NGAYTRA=NgayTra
        FROM INSERTED
        IF((@NGAYTRA-@NGAYTHUE)>10)
        BEGIN
            PRINT 'LOI'
            ROLLBACK TRAN
        END
        ELSE PRINT 'THANH CONG'
    END

INSERT PHIEUTHUE VALUES('PT11', 'D1', '1/31/2007', '2/5/2007', 3)

--2.2

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--          THÊM-----XÓA-----SỬA
--PHIEUTHUE      +          -          +(SOSACHTHUE)
--CHITIET_PT     +          +          -(*)

CREATE TRIGGER TRG_PT_INS_UP ON PHIEUTHUE
FOR INSERT, UPDATE
AS
BEGIN
    DECLARE @SOSACHTHUE INT, @MAPT CHAR(5), @TONGSACH INT
    SELECT @SOSACHTHUE=SOSACHTHUE, @MAPT=MAPT
    FROM INSERTED
    SET @TONGSACH=(SELECT COUNT(*) FROM CHITIET_PT WHERE MaPT=@MAPT)
    IF(@SOSACHTHUE<>@TONGSACH)
    BEGIN
        PRINT 'LOI'
        ROLLBACK TRAN
    END
END

CREATE TRIGGER TRG_CT_INS ON CHITIET_PT
FOR INSERT
AS
BEGIN
    DECLARE @MAPT CHAR(5)
    SELECT @MAPT=MAPT
    FROM INSERTED
    UPDATE PHIEUTHUE SET SoSachThue=SoSachThue+1 WHERE MaPT=@MAPT
END

CREATE TRIGGER TRG_CT_UP ON CHITIET_PT
FOR DELETE
AS
BEGIN
    DECLARE @MAPT CHAR(5)
    SELECT @MAPT=MAPT
    FROM deleted
    UPDATE PHIEUTHUE SET SoSachThue=SoSachThue-1 WHERE MaPT=@MAPT
END

-- CÂU 3
--3.1
SELECT DISTINCT DG.MaDG, HoTen
FROM DOCGIA DG, SACH S, PHIEUTHUE PT, CHITIET_PT CT
WHERE DG.MaDG=PT.MaDG AND PT.MaPT=CT.MaPT AND CT.MaSach=S.MaSach
AND TheLoai='Tin học' AND YEAR(NgayThue)=2007
--3.2
SELECT PT.MaDG, HoTen
FROM DOCGIA DG, PHIEUTHUE PT, SACH S, CHITIET_PT CT
WHERE DG.MaDG=PT.MaDG AND PT.MaPT=CT.MaPT AND CT.MaSach=S.MaSach
GROUP BY PT.MaDG, HoTen
HAVING COUNT(DISTINCT(TheLoai)) >= ALL (SELECT COUNT(DISTINCT(TheLoai))
FROM DOCGIA DG,
PHIEUTHUE PT, SACH S, CHITIET_PT CT
WHERE
DG.MaDG=PT.MaDG AND PT.MaPT=CT.MaPT AND CT.MaSach=S.MaSach
GROUP BY PT.MaDG,
HoTen)
--3.3

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SELECT TheLoai, TenSach
FROM PHIEUTHUE PT, SACH S, CHITIET_PT CT
WHERE PT.MaPT=CT.MaPT AND CT.MaSach=S.MaSach
GROUP BY TheLoai, TenSach
HAVING COUNT(*) >= ALL (SELECT COUNT(*)
FROM PHIEUTHUE PT, SACH S2, CHITIET_PT CT
WHERE PT.MaPT=CT.MaPT AND CT.MaSach=S2.MaSach
GROUP BY TheLoai, TenSach)
AND S.TheLoai=S2.TheLoai

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