

Họ tên: Lê Ngọc Phương Thảo

MSSV: 23521467

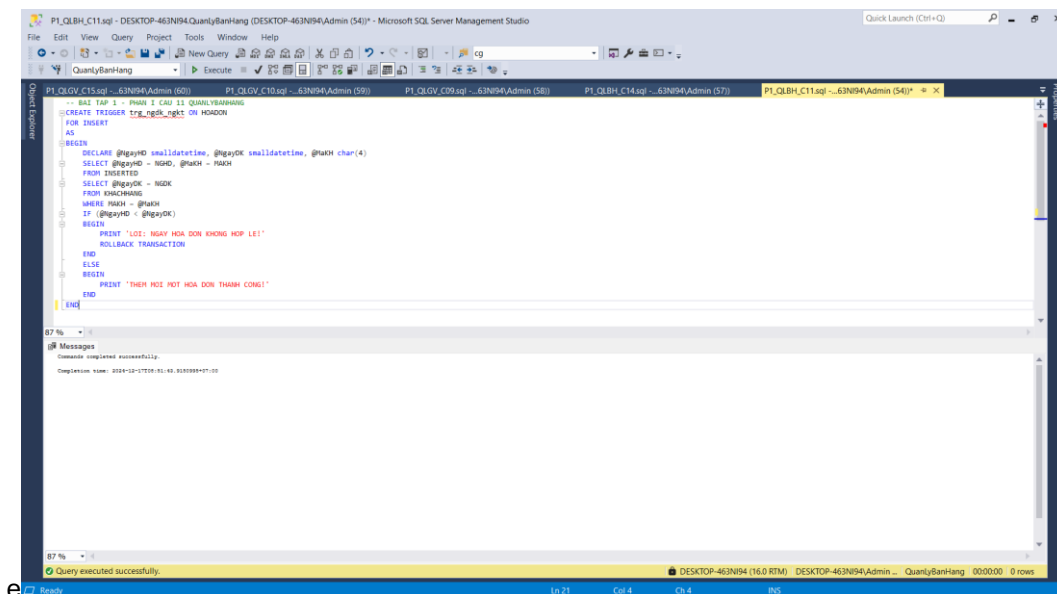
Lớp: IT004.P113

Github: github.com/lngphgthao/IT004.P113

Lab 5

Bài tập 1:

Câu 11:

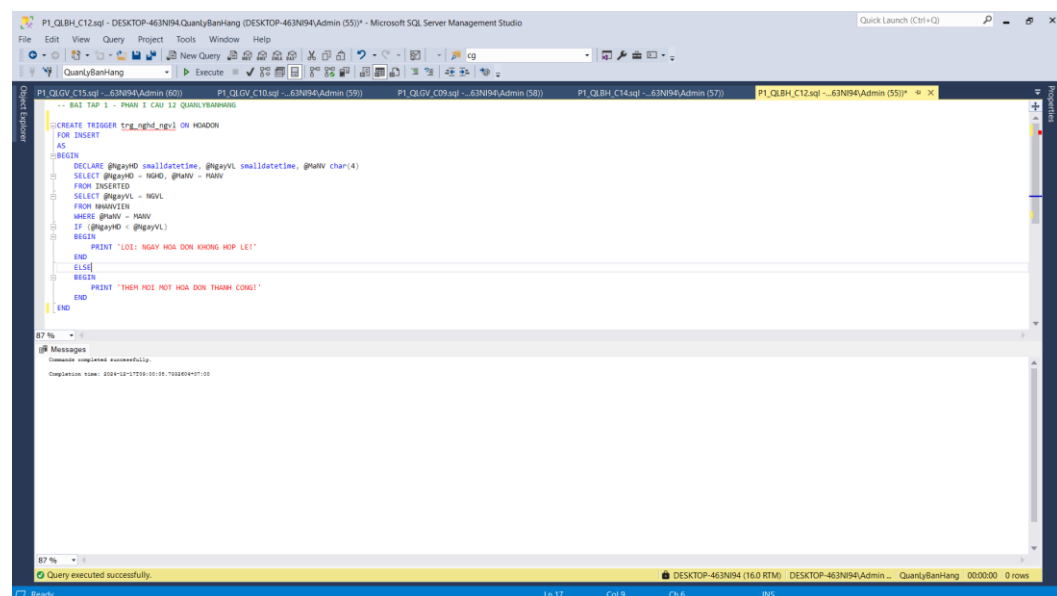


```
-- BÀI TẬP 1 - PHẦN 1 CÂU 11 QUẢN LÝ BÁN HÀNG
CREATE TRIGGER trg_ngay_ngot ON HOADON
FOR INSERT
AS
BEGIN
    DECLARE @ngayHD smalldatetime, @ngayDK smalldatetime, @hatch char(4)
    SELECT @ngayHD = NGHD, @hatch = HATCH
    FROM INSERTED
    SELECT @ngayDK = NGDK
    FROM KHOSCHUNG
    WHERE HATCH = @hatch
    IF (@ngayHD < @ngayDK)
    BEGIN
        PRINT 'LỖI: NGÀY HÓA ĐƠN KHÔNG HỢP LỆ!'
        ROLLBACK TRANSACTION
    END
    ELSE
    BEGIN
        PRINT 'THẺ HÓA ĐƠN HÓA ĐƠN THÀNH CÔNG!'
    END
END
```

87 %
Messages
Execution completed successfully.
Completion time: 2024-12-17 10:51:03.833000000+07:00

Query executed successfully.

Câu 12:

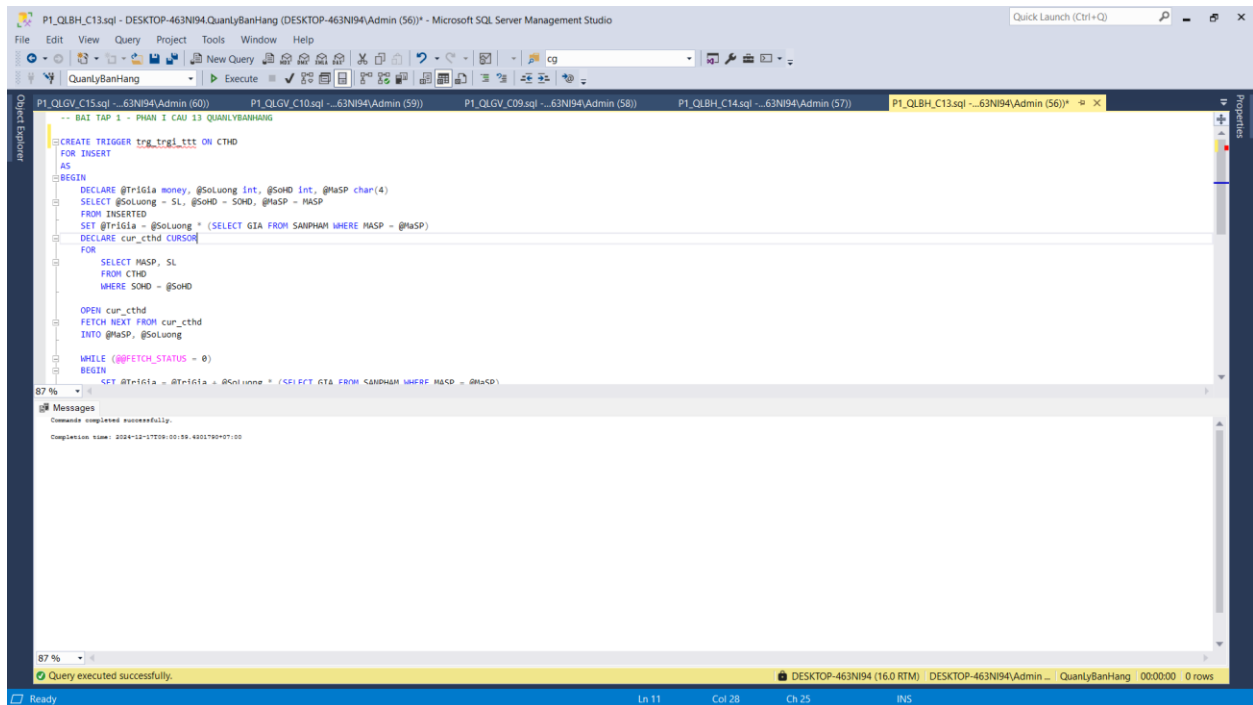


```
-- BÀI TẬP 1 - PHẦN 1 CÂU 12 QUẢN LÝ BÁN HÀNG
CREATE TRIGGER trg_ngay_ngot ON HOADON
FOR INSERT
AS
BEGIN
    DECLARE @ngayHD smalldatetime, @ngayVL smalldatetime, @hatch char(4)
    SELECT @ngayHD = NGHD, @hatch = HATCH
    FROM INSERTED
    SELECT @ngayVL = NGVL
    FROM HANHVIEN
    WHERE @hatch = HATCH
    IF (@ngayHD < @ngayVL)
    BEGIN
        PRINT 'LỖI: NGÀY HÓA ĐƠN KHÔNG HỢP LỆ!'
    END
    ELSE
    BEGIN
        PRINT 'THẺ HÓA ĐƠN HÓA ĐƠN THÀNH CÔNG!'
    END
END
```

87 %
Messages
Execution completed successfully.
Completion time: 2024-12-17 10:51:03.833000000+07:00

Query executed successfully.

Câu 13:



The screenshot displays the Microsoft SQL Server Management Studio interface. The main window shows a T-SQL script for creating a trigger named `trg_trg1_ttt` on the `CTHD` table. The script includes variable declarations for `money`, `int`, and `char(4)`, followed by a `FOR INSERT` trigger body. The trigger logic involves selecting data from `CTHD` and `SANPHAM` tables, inserting it into `CTHD`, and then opening a cursor to fetch data into variables. The script concludes with a `WHILE` loop and a `SET` statement. The status bar at the bottom indicates the query was executed successfully.

```
-- BAI TAP 1 - PHAN 1 CAU 13 QUANLYBANHANG

CREATE TRIGGER trg_trg1_ttt ON CTHD
FOR INSERT
AS
BEGIN
    DECLARE @Trig1a money, @Soluong int, @SoHD int, @MaSP char(4)
    SELECT @Soluong = SL, @SoHD = SOHD, @MaSP = MASP
    FROM INSERTED
    SET @Trig1a = @Soluong * (SELECT GIA FROM SANPHAM WHERE MASP = @MaSP)
    DECLARE cur_cthd CURSOR
    FOR
        SELECT MASP, SL
        FROM CTHD
        WHERE SOHD = @SoHD

    OPEN cur_cthd
    FETCH NEXT FROM cur_cthd
    INTO @MaSP, @Soluong

    WHILE (@@FETCH_STATUS = 0)
    BEGIN
        SET @Trig1a = @Trig1a + @Soluong * (SELECT GIA FROM SANPHAM WHERE MASP = @MaSP)
    END
END
```

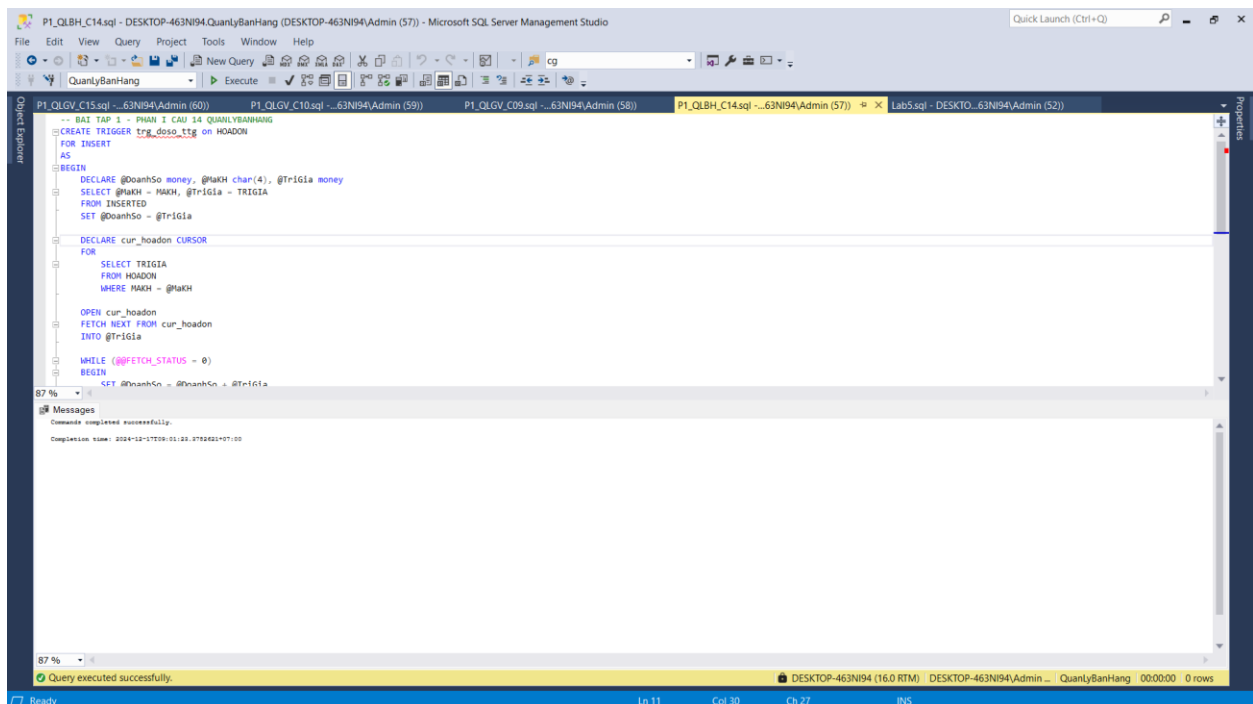
Messages

Command completed successfully.

Completion time: 2024-12-17T09:00:18.4301780+07:00

Query executed successfully.

Câu 14:



The screenshot displays the Microsoft SQL Server Management Studio interface. The main window shows a T-SQL script for creating a trigger named `trg_doso_ttg` on the `HOADON` table. The script includes variable declarations for `money`, `char(4)`, and `money`, followed by a `FOR INSERT` trigger body. The trigger logic involves selecting data from `HOADON` and `TRIGIA` tables, inserting it into `HOADON`, and then opening a cursor to fetch data into variables. The script concludes with a `WHILE` loop and a `SET` statement. The status bar at the bottom indicates the query was executed successfully.

```
-- BAI TAP 1 - PHAN 1 CAU 14 QUANLYBANHANG

CREATE TRIGGER trg_doso_ttg ON HOADON
FOR INSERT
AS
BEGIN
    DECLARE @DoanhSo money, @MaKH char(4), @Trig1a money
    SELECT @MaKH = MAKH, @Trig1a = TRIGIA
    FROM INSERTED
    SET @DoanhSo = @Trig1a

    DECLARE cur_hoadon CURSOR
    FOR
        SELECT TRIGIA
        FROM HOADON
        WHERE MAKH = @MaKH

    OPEN cur_hoadon
    FETCH NEXT FROM cur_hoadon
    INTO @Trig1a

    WHILE (@@FETCH_STATUS = 0)
    BEGIN
        SET @DoanhSo = @DoanhSo + @Trig1a
    END
END
```

Messages

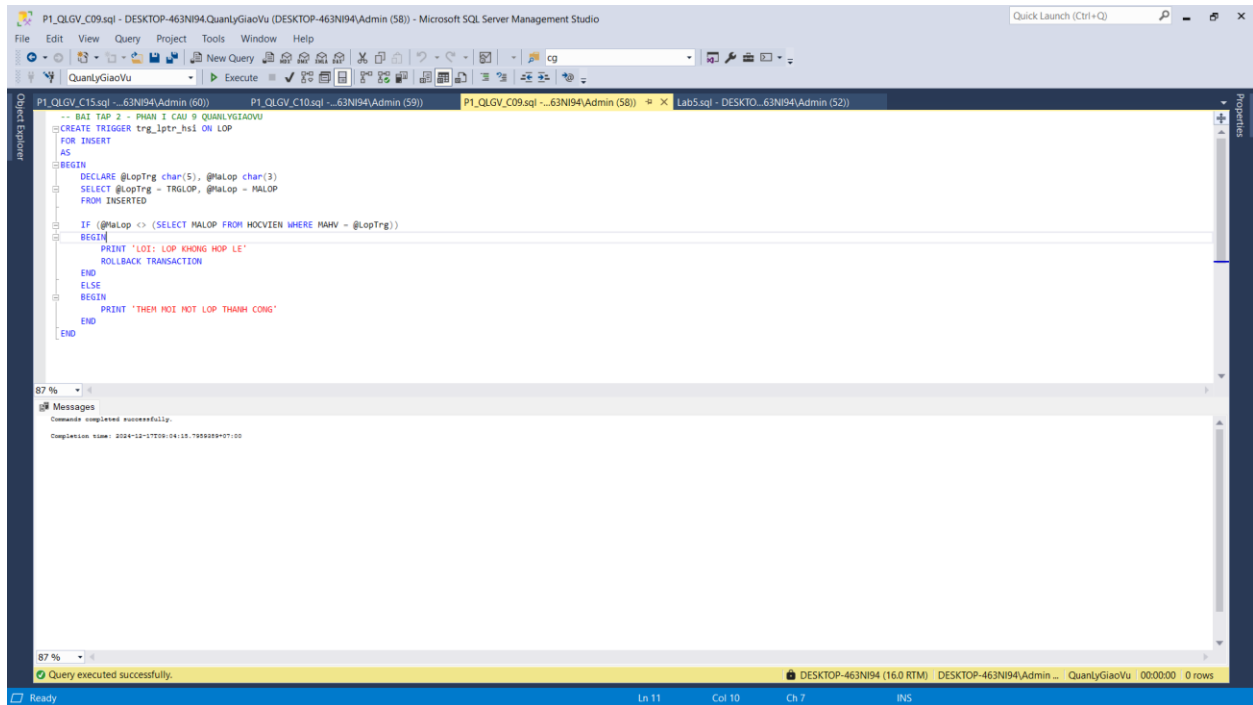
Command completed successfully.

Completion time: 2024-12-17T09:01:23.3792621+07:00

Query executed successfully.

Bài tập 2:

Câu 9:



```
-- BAI TAP 2 - PHAN 1 CAU 9 QUANLYGIAOVU
CREATE TRIGGER trg_lptr_hsl ON LOP
FOR INSERT
AS
BEGIN
    DECLARE @LopTrg char(5), @MaLop char(3)
    SELECT @LopTrg = TRGLOP, @MaLop = MALOP
    FROM INSERTED

    IF (@MaLop <> (SELECT MALOP FROM HOCTIEN WHERE MAHV = @LopTrg))
    BEGIN
        PRINT 'LOI: LOP KHONG HOP LE'
        ROLLBACK TRANSACTION
    END
    ELSE
    BEGIN
        PRINT 'THEM HOI HOC LOP THANH CONG'
    END
END
```

87 %

Messages

Command completed successfully.

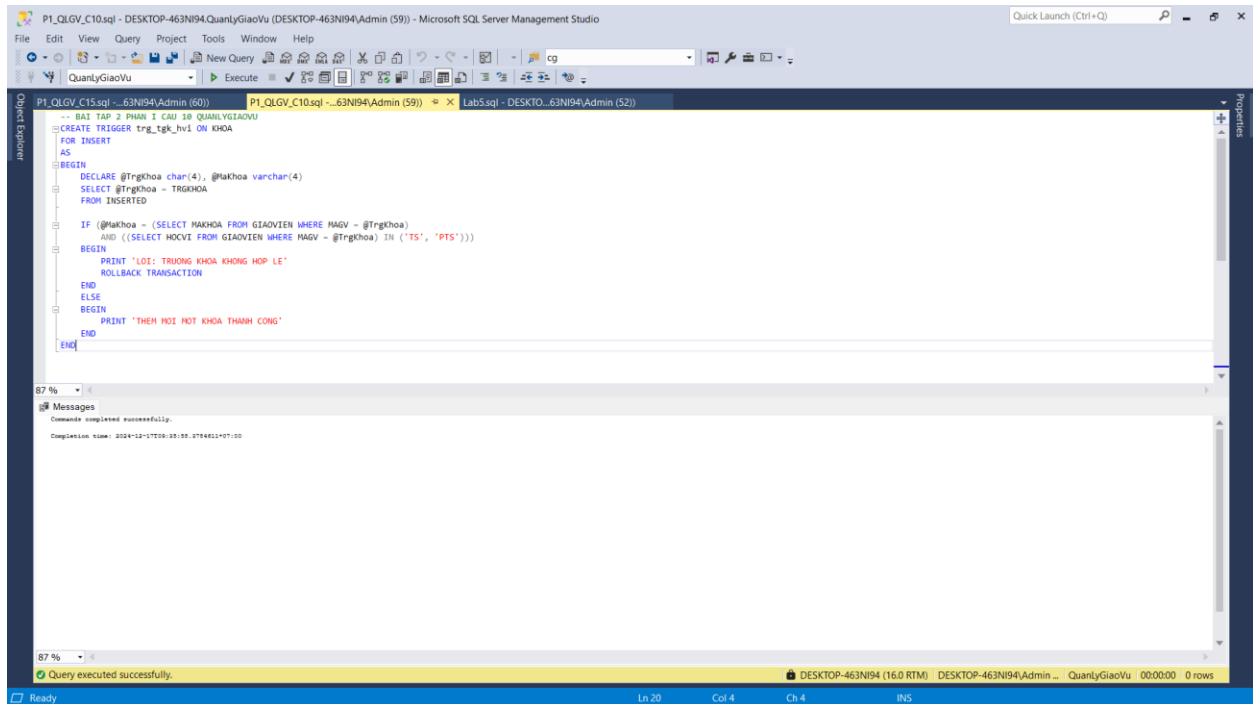
Completion time: 2024-12-17T09:04:15.7859289+07:00

87 %

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:00 | 0 rows

Câu 10:



```
-- BAI TAP 2 PHAN 1 CAU 10 QUANLYGIAOVU
CREATE TRIGGER trg_tgk_hv1 ON KHOA
FOR INSERT
AS
BEGIN
    DECLARE @Trgkhoa char(4), @Makhoa varchar(4)
    SELECT @Trgkhoa = TRGKHOA
    FROM INSERTED

    IF (@Makhoa <= (SELECT MAKHOA FROM GIAOVIEU WHERE MAGV = @Trgkhoa)
    AND ((SELECT HOCVI FROM GIAOVIEU WHERE MAGV = @Trgkhoa) IN ('TS', 'PTS'))))
    BEGIN
        PRINT 'LOI: TRUONG KHOA KHONG HOP LE'
        ROLLBACK TRANSACTION
    END
    ELSE
    BEGIN
        PRINT 'THEM HOI HOC KHOA THANH CONG'
    END
END
```

87 %

Messages

Command completed successfully.

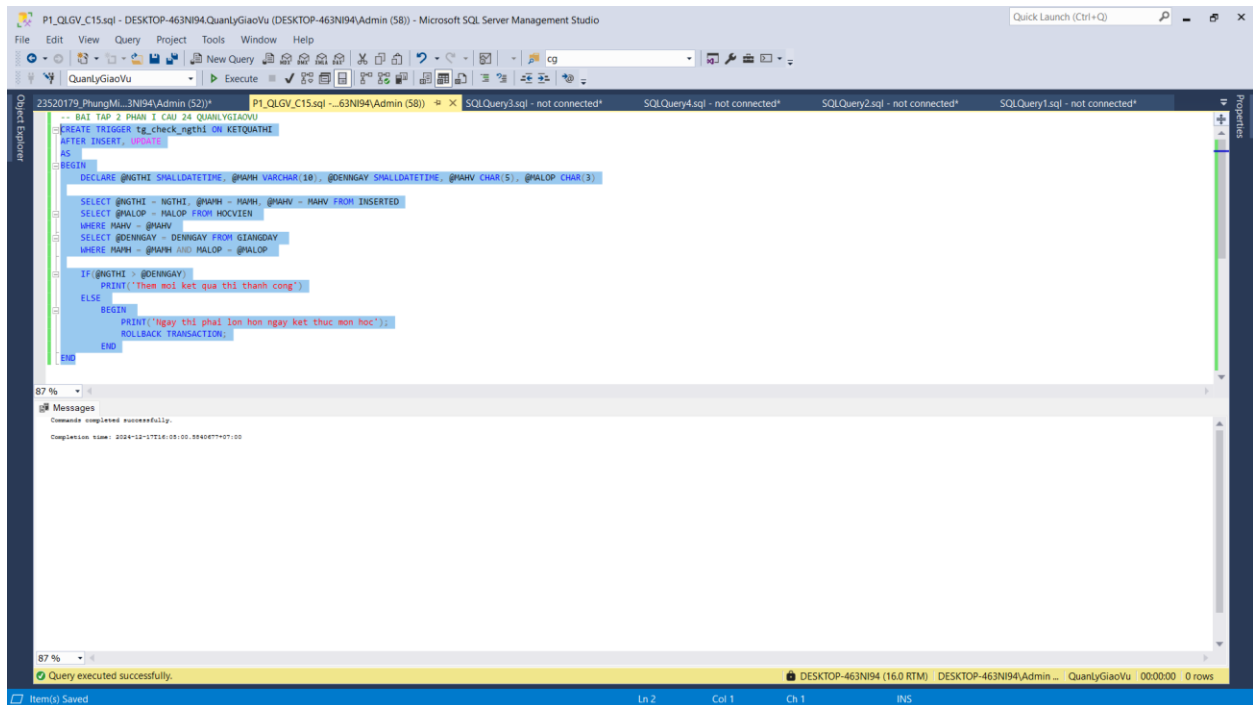
Completion time: 2024-12-17T09:05:00.8784611+07:00

87 %

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:00 | 0 rows

Câu 15:



```
-- BAI TAP 2 PHAN I CAU 24 QUANLYGIAOVU
CREATE TRIGGER tg_check_ngthi ON KETQUATHI
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @NGTHI SMALLDATETIME, @NAME VARCHAR(10), @DENGAY SMALLDATETIME, @NAME CHAR(5), @MALOP CHAR(3)
    SELECT @NGTHI = NGTHI, @NAME = NAME, @NAME = NAME FROM INSERTED
    SELECT @MALOP = MALOP FROM HOCVIEN
    WHERE NAME = @NAME
    SELECT @DENGAY = DENGAY FROM GIANGDAY
    WHERE NAME = @NAME AND MALOP = @MALOP
    IF (@NGTHI > @DENGAY)
        PRINT('Thien moi ket qua thi thanh cong')
    ELSE
        BEGIN
            PRINT('Ngay thi phai lon hon ngay ket thuc mon hoc')
            ROLLBACK TRANSACTION
        END
    END
```

87 %

Messages

Command completed successfully.

Completion time: 2024-12-12T16:05:00.884077+07:00

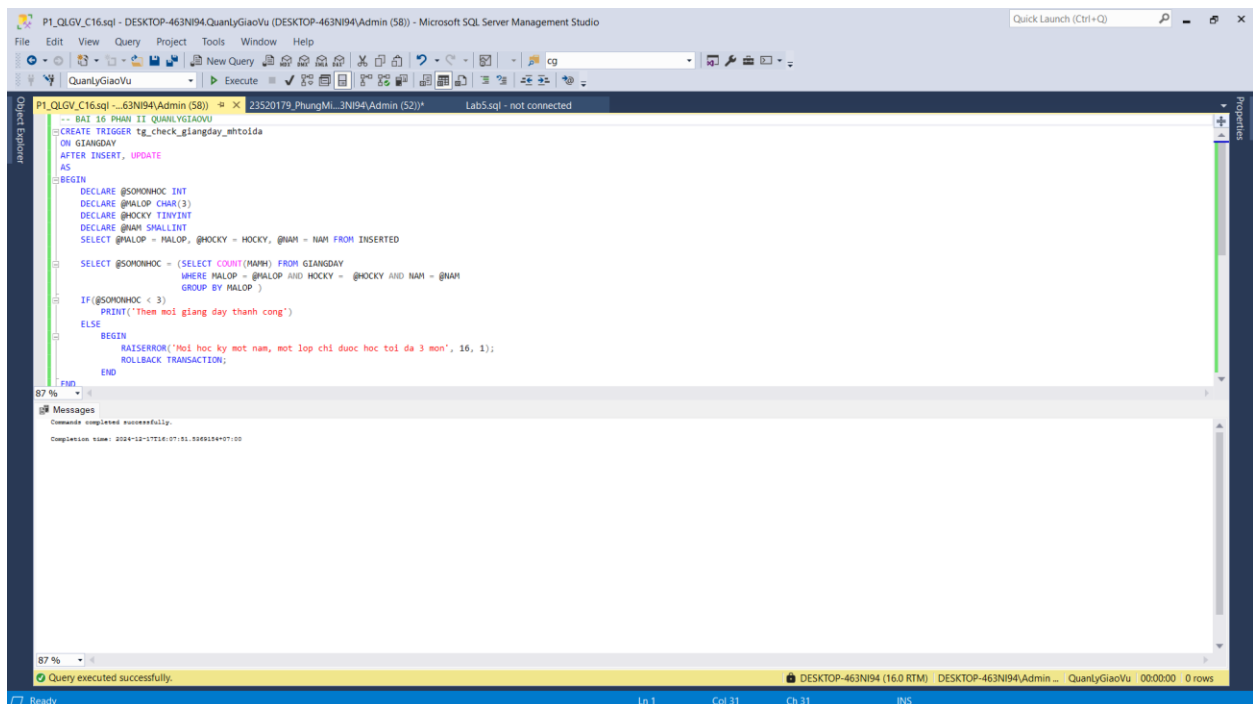
87 %

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:00 | 0 rows

Item(s) Saved | Ln 2 | Col 1 | Ch 1 | INS

Câu 16:



```
-- BAI 16 PHAN II QUANLYGIAOVU
CREATE TRIGGER tg_check_giangday_whytda
ON GIANGDAY
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @SOPHONHOC INT
    DECLARE @MALOP CHAR(3)
    DECLARE @HOCKY TINYINT
    DECLARE @NAME SMALLINT
    SELECT @MALOP = MALOP, @HOCKY = HOCKY, @NAME = NAME FROM INSERTED
    SELECT @SOPHONHOC = (SELECT COUNT(NAME) FROM GIANGDAY
    WHERE MALOP = @MALOP AND HOCKY = @HOCKY AND NAME = @NAME
    GROUP BY MALOP)
    IF (@SOPHONHOC < 3)
        PRINT('Thien moi giang day thanh cong')
    ELSE
        BEGIN
            RAISERROR('Moi hoc ky mot nam, mot lop chi duoc hoc toi da 3 mon', 16, 1)
            ROLLBACK TRANSACTION
        END
    END
```

87 %

Messages

Command completed successfully.

Completion time: 2024-12-12T16:07:01.908124+07:00

87 %

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:00 | 0 rows

Ready | Ln 1 | Col 31 | Ch 31 | INS

Câu 17:

```
-- BAI TAP 2 PHAN II CAU 17 QUANLYGIAOVU
CREATE TRIGGER tg_check_slsv
ON LOP
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @SISO TINYINT
    DECLARE @MALOP CHAR(3)
    DECLARE @SLHV TINYINT

    SELECT @SISO = SISO, @MALOP = MALOP FROM INSERTED
    SELECT @SLHV = (SELECT COUNT(MHV)
                    FROM HOCVIEN
                    WHERE MALOP = @MALOP
                    GROUP BY MALOP)

    IF (@SISO = @SLHV)
        PRINT('Them moi lop thanh cong')
    ELSE
        BEGIN
            RAISERROR('Si so cua lop phai bang so luong hoc vien', 16, 1);
            ROLLBACK TRANSACTION;
        END
END
```

Messages

Command completed successfully.

Completion time: 2024-12-17T16:09:01.1388289+07:00

87 %

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:01 | 0 rows

Ready | Ln 1 | Col 41 | Ch 41 | INS

Câu 18:

```
-- BAI TAP 2 PHAN II CAU 18 QUANLYGIAOVU
CREATE TRIGGER tg_check_dieukien ON DIEUKIEN
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @MaMH VARCHAR(10), @MaMH_truoc VARCHAR(10)

    SELECT @MaMH = MaMH, @MaMH_truoc = MaMH_TRUOC FROM INSERTED
    IF (@MaMH = @MaMH_truoc)
        BEGIN
            RAISERROR('Gia tri danh va danh truoc khon duoc giống nhau', 16, 1);
            ROLLBACK TRANSACTION
        END
    ELSE IF (EXISTS(SELECT * FROM DIEUKIEN
                    WHERE MaMH = @MaMH_truoc AND MaMH_TRUOC = @MaMH))
        BEGIN
            RAISERROR('Hai gia tri ton tai cung bo', 16, 1);
            ROLLBACK TRANSACTION;
        END
    ELSE
        PRINT('Them moi dieu kien thanh cong')
END
```

Messages

Command completed successfully.

Completion time: 2024-12-17T20:43:00.7289767+07:00

96 %

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:00 | 0 rows

Item(s) Saved | Ln 15 | Col 64 | Ch 52 | INS

Câu 19:

```
-- BAI TAP 2 PHAN I CAU 19 QUANLYGIAOVU
CREATE TRIGGER tg_check_muc_luong
ON GIAOVZEN
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @HOV VARCHAR(10)
    DECLARE @HOCHAM VARCHAR(10)
    DECLARE @MUCLUONG MONEY

    DECLARE @HOV1 VARCHAR(10)
    DECLARE @HOCHAM1 VARCHAR(10)
    DECLARE @MUCLUONG1 MONEY

    SELECT @HOV = HOV, @HOCHAM = HOCHAM, @MUCLUONG = MUCLUONG FROM INSERTED

    SELECT TOP 1 @MUCLUONG1 = MUCLUONG FROM GIAOVZEN
    WHERE HOV1 = @HOV AND HOCHAM1 = @HOCHAM

    IF (@MUCLUONG < @MUCLUONG1)
        PRINT('Them moi giao vien thanh cong')
    ELSE
        BEGIN
            RAISERROR('Giao vien cung vi, hoc ham nhung muc luong khac nhau', 16, 1);
            ROLLBACK TRANSACTION;
        END
END
```

Messages

Command completed successfully.

Completion time: 2024-12-17T22:02:56.885120+07:00

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QueryGiaoVu | 00:00:00 | 0 rows

Câu 20:

```
-- BAI TAP 2 PHAN I CAU 20 QUANLYGIAOVU
CREATE TRIGGER tg_check_thi_lai
ON KETQUATHI
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @HANG CHAR(5)
    DECLARE @PREV_DIEN NUMERIC(4, 2)

    SELECT @HANG = HANG FROM INSERTED
    SELECT @PREV_DIEN = DIEN FROM KETQUATHI
    WHERE HANG = @HANG

    IF (@PREV_DIEN < 5)
        PRINT('Them moi ket qua thi thanh cong')
    ELSE
        BEGIN
            RAISERROR('Diem trước đó của học viên trên 5', 16, 1);
            ROLLBACK TRANSACTION;
        END
    END
END
```

Messages

Command completed successfully.

Completion time: 2024-12-17T22:06:18.784732+07:00

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QueryGiaoVu | 00:00:00 | 0 rows

Câu 21:

```
-- BAI TAP 2 PHAN I CAU 21 QUANLYGIAOVU
CREATE TRIGGER tg_check_nghilai
ON KETQUATHI
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @HAMV CHAR(5)
    DECLARE @HAMH VARCHAR(10)
    DECLARE @NGTH1 SMALLDATETIME
    DECLARE @NGTH2 SMALLDATETIME

    SELECT @HAMV = HAMV, @HAMH = HAMH, @NGTH1 = NGTH1 FROM KETQUATHI
    WHERE @HAMV = HAMV AND @HAMH = HAMH

    IF (@NGTH1 > @NGTH2)
        PRINT('Them moi ket qua thi thanh cong')
    ELSE
        BEGIN
            RAISERROR('hoc vien thi lai nhung ngay thi nho hon ngay thi truoc do', 16, 1);
            ROLLBACK TRANSACTION;
        END
END
```

79 %

Messages

Command completed successfully.

Completion time: 2024-12-17T22:09:09.081872+07:00

79 %

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:00 | 0 rows

Câu 22:

```
-- BAI TAP 2 PHAN I CAU 22 QUANLYGIAOVU
CREATE TRIGGER tg_check_hocvong
ON KETQUATHI
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @NGTH1 SMALLDATETIME
    DECLARE @HAMV VARCHAR(10)
    DECLARE @DENGAY SMALLDATETIME
    DECLARE @HAMV1 CHAR(5)
    DECLARE @HAMV2 CHAR(3)

    SELECT @NGTH1 = NGTH1, @HAMV = HAMV, @HAMH = HAMH FROM KETQUATHI
    WHERE @HAMV = @HAMV1

    SELECT @DENGAY = DENGAY FROM KETQUATHI
    WHERE @HAMV = @HAMV1 AND @HAMH = @HAMV2

    IF (@DENGAY > @DENGAY1)
        PRINT('Them moi ket qua thi thanh cong')
    ELSE
        BEGIN
            RAISERROR('ngay thi phai lon hon ngay ket thuc mon hoc', 16, 1);
            ROLLBACK TRANSACTION;
        END
END
```

79 %

Messages

Command completed successfully.

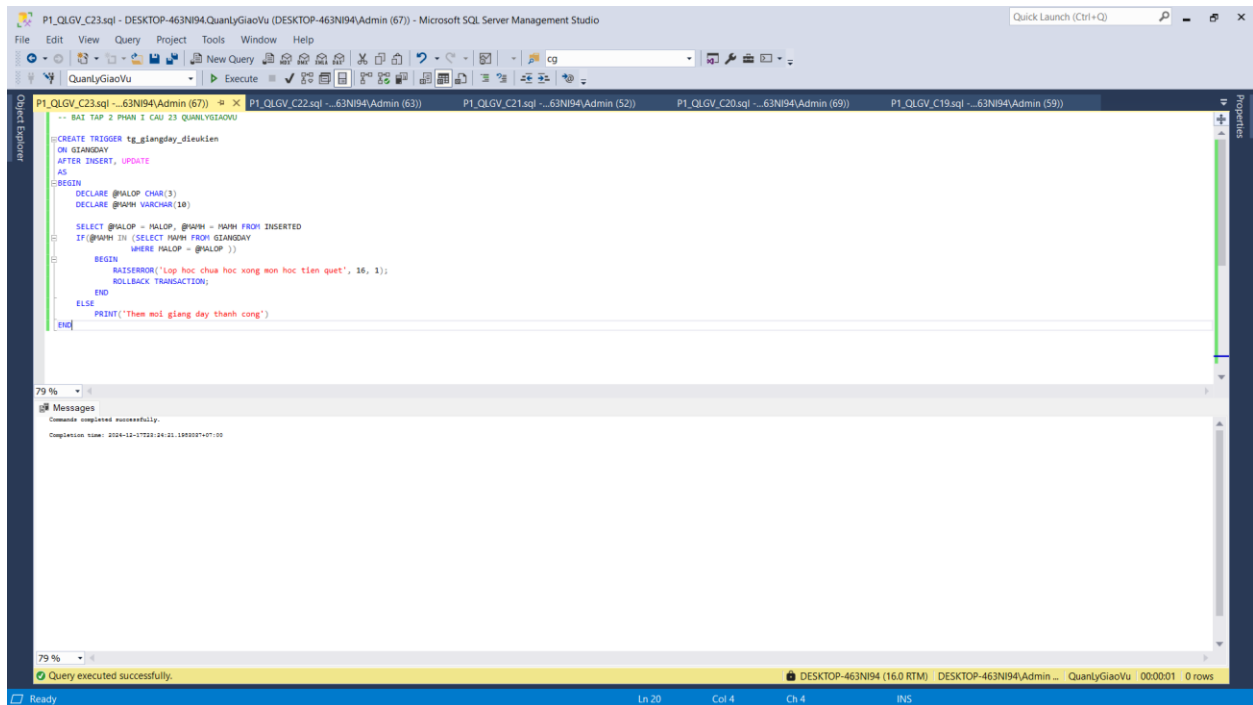
Completion time: 2024-12-17T22:11:04.285285+07:00

79 %

Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:00 | 0 rows

Câu 23:



```
-- BAI TAP 2 PHAN I CAU 23 QUANLYGIAOVU
CREATE TRIGGER tg_giangday_dieukien
ON GIANGDAY
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @MALOP CHAR(3)
    DECLARE @NAME VARCHAR(10)

    SELECT @MALOP = MALOP, @NAME = NAME FROM INSERTED
    IF (@NAME IN (SELECT NAME FROM GIANGDAY
        WHERE MALOP = @MALOP))
    BEGIN
        RAISERROR('Lop hoc chua hoc xong mon hoc tien quet', 16, 1);
        ROLLBACK TRANSACTION;
    END
    ELSE
        PRINT('Them moi giang day thanh cong')
END
```

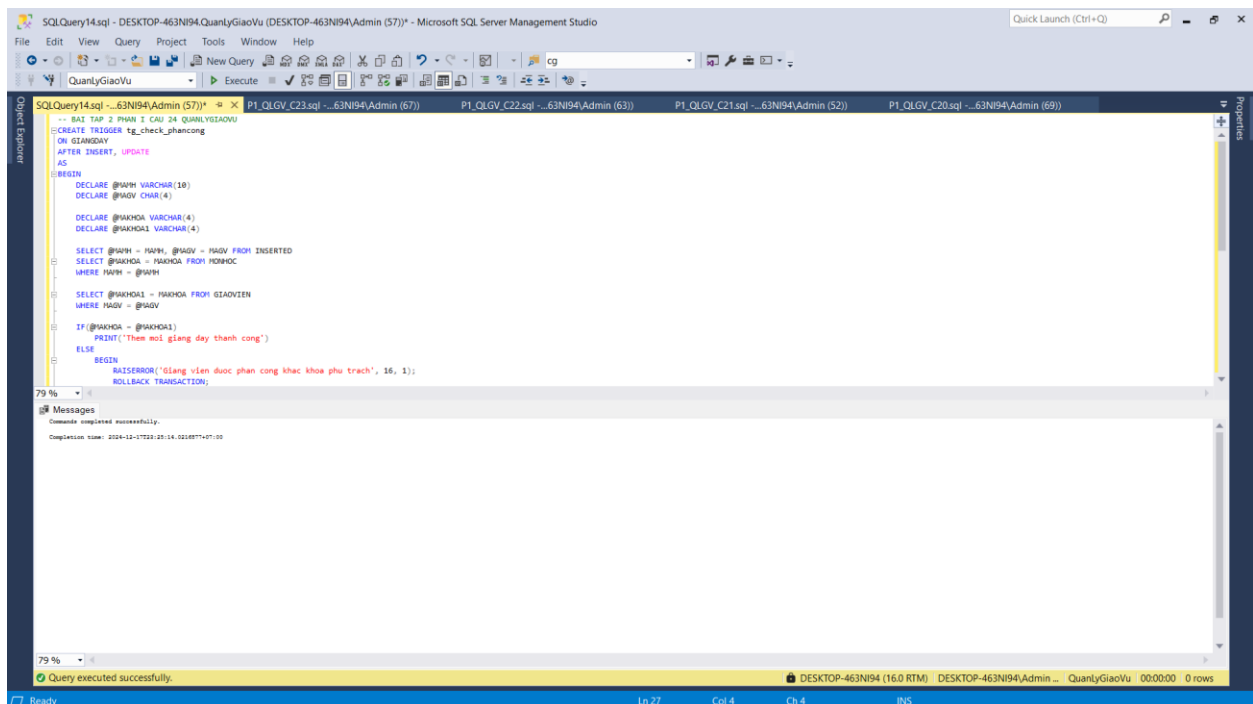
79 %
Messages
Command completed successfully.
Completion time: 2024-12-17T22:24:21.195307+07:00

79 %
Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:01 | 0 rows

Ready | Ln 20 | Col 4 | Ch 4 | INS

Câu 24:



```
-- BAI TAP 2 PHAN I CAU 24 QUANLYGIAOVU
CREATE TRIGGER tg_check_phancong
ON GIANGDAY
AFTER INSERT, UPDATE
AS
BEGIN
    DECLARE @NAME VARCHAR(10)
    DECLARE @NAME1 VARCHAR(4)
    DECLARE @NAME2 VARCHAR(4)
    DECLARE @NAME3 VARCHAR(4)

    SELECT @NAME = NAME, @NAME1 = NAME FROM INSERTED
    SELECT @NAME2 = NAME FROM INSERTED
    WHERE NAME = @NAME1

    SELECT @NAME2 = NAME FROM INSERTED
    WHERE NAME = @NAME1

    IF (@NAME2 = @NAME1)
        PRINT('Them moi giang day thanh cong')
    ELSE
        BEGIN
            RAISERROR('Giang vien duoc phan cong khac khoa phu trach', 16, 1);
            ROLLBACK TRANSACTION;
        END
END
```

79 %
Messages
Command completed successfully.
Completion time: 2024-12-17T22:29:14.521877+07:00

79 %
Query executed successfully.

DESKTOP-463N194 (16.0 RTM) | DESKTOP-463N194\Admin ... | QuanlyGiaoVu | 00:00:00 | 0 rows

Ready | Ln 27 | Col 4 | Ch 4 | INS