--P2

--1. Tạo Database

create database companyelectroshop

go

use companyelectroshop

go

create table supplier

(supplierid varchar(30) not null,

pname varchar(30) not null,

address varchar(40) not null,

phonenumber int not null)

go

create table category

(categoryid varchar(10) not null ,

pname varchar(30) not null,

pdescription varchar(50) not null )

go

create table customer

(customerid int identity ,

pname varchar(30) not null,

paddress varchar(40) not null,

phonenumber varchar(10)not null )

go

create table employee

(employeeid int identity ,

pname varchar(30) not null,

gender varchar(10) not null ,

phonenumber int not null )

go

create table product

(productid int identity not null ,

pname varchar(30) not null,

supplierid varchar(30) not null,

categoriid varchar(10) not null,

unitprice money not null)

go

create table bill

(billid varchar(30) not null ,

customerid int not null,

employeeid int not null,

dates date null )

go

create table billdetail

(billid varchar(30) not null,

productid int not null,

quantity int not null )

go

drop table bill

--2. Tạo các bảng. Trong quá trình tạo chú ý các fields làm primary key (1 field) và

-- tinh chất not null cho các fields.

-- Chú ý có thể dùng các field số int với thuộc tính identity tạo pri

alter table supplier

add constraint pk\_supp primary key (supplierid)

go

alter table category

add constraint pk\_cat primary key (categoryid)

go

alter table category

add constraint df\_cat default ('there is no description') for pdescription

go

alter table customer

add constraint pk\_cust primary key( customerid)

go

alter table customer

add constraint df\_cust default ('there is no phonenumber') for phonenumber

go

alter table employee

add constraint pk\_emp primary key ( employeeid)

go

alter table employee

add constraint ck\_emp check( gender = 'Male' or gender = 'Female' )

go

alter table employee

add constraint df\_emp default ('there is no phonenumber') for phonenumber

go

alter table product

add constraint pk\_pro primary key (productid)

go

alter table product

add constraint fk\_pro foreign key (supplierid) references supplier( supplierid)

go

alter table product

add constraint fk\_prod foreign key (categoriid) references category(categoryid)

go

alter table bill

add constraint pk\_bill primary key (billid)

go

alter table bill

add constraint fk\_bilcust foreign key (customerid) references customer(customerid)

go

alter table bill

add constraint fk\_bilemp foreign key ( employeeid )references employee(employeeid)

go

alter table bill

add constraint df\_bil default getdate() for dates

go

alter table billdetail

add constraint fk\_bildet foreign key (billid) references bill(billid)

go

alter table billdetail

add constraint fk\_bilpro foreign key (productid) references product(productid)

go

--3. Xây dụng các ràng buộc:

--3.1 Primary key nếu là 2 fields

--3.2 Các foreign key

--3.3 Các constraints : default, check

insert into supplier values

('DT01','ABC company','7890 - 20th Ave. E., Apt. 2A',0123456781),

('DT02','MNJ company','9012 W. Capital Way',0435667832),

('DT03','HQR company','2345 Moss Bay Blvd.',0154676787),

('DT04','EMK company','5678 Old Redmond Rd.',0984767830),

('DT05','IVM company','8901 Garrett Hill',0123425352)

go

insert into category values

('C1','Beverages','Soft drinks, coffees, teas, beers'),

('C2','Condiments','Sweet and savory sauces, relishes'),

('C3','Confections','Desserts, candies, and sweet breads'),

('C4','Dairy Products','Cheeses'),

('C5','Grains/Cereals','Breads, crackers, pasta')

go

insert into customer(pname ,paddress ,phonenumber) values

('Allen, Michael','Obere Str. 0123',012648390),

('Hassall, Mark','Avda. de la Constitución 5678',0385936475),

('Peoples, John','Mataderos 7890',0374856794),

('Arndt, Torsten','7890 Hanover Sq.',0384536574),

('Higginbotham, Tom','Berguvsvägen 5678',0274856374)

go

insert into employee(pname, gender, phonenumber) values

('Sara','female',012623490),

('Don','male',012643521),

('Judy','female',012646798),

('Yael','female',012640865),

('Sven','male',012645479)

go

insert into product(pname, supplierid, categoriid,unitprice) values

('Product HHYDP','DT02','C2',15),

('Product RECZE','DT01','C1',26),

('Product IMEHJ','DT03','C3',56),

('Product KSBRM','DT04','C4',95),

('Product EPEIM','DT05','C5',13)

GO

insert into bill(billid, customerid, employeeid) values

('BI01', 1, 1),

('BI02', 2, 2),

('BI03', 3, 3),

('BI04', 4, 4),

('BI05', 5, 5)

go

insert into billdetail(billid, productid, quantity) values

('BI01',2,5),

('BI02',2,4),

('BI03',3,10),

('BI04',4,12),

('BI05',5,23)

go

--P3

--4. Insert 1 số dữ liệu vào các bảng.

-- Các bảng trong quan hệ 1 nên nhập ít nhất là 5 thông tin

update customer set paddress = '8901 Tsawassen Blvd '

where customerid = 1

go

update supplier set pname = 'MNG company'

where supplierid = 'DT02'

go

update product set unitprice = 30

where productid = 3

go

update category set pdescription = ' candies, and sweet breads'

where categoryid = 'C3'

go

update employee set gender = 'female'

where employeeid = 2

go

--5 Thực hiện 5 câu lệnh update cho các bảng

delete from billdetail

where billid = 'BI05'

GO

delete from bill

where billid = 'BI05'

GO

delete from customer

where customerid = 5

go

delete from product

where productid = 5

delete from supplier

where supplierid = 'DT05'

GO

--6 Thực hiện 5 cấu lệnh delete. Chú ý khi delete,

-- có thể có trường hợp không xóa được do có references

-- cần xóa bên references trước

select productid, pname , categoriid , unitprice

from product

go

select productid , pname, unitprice

from product

where unitprice = 95

go

select \* from product

where unitprice between 20 and 60

go

select \* from customer

where pname like '\_llen, Michae\_'

go

select \* from product

where unitprice = 15 and unitprice = 30

go

select top 3 unitprice , pname

from product

go

--7 Thực hiện ít nhất 5 câu lệnh truy vấn select

-- Thực hiện từ câu đơn giản, đến các truy vấn có where, có between ...and,

-- có in(...), có like...., có and và or

select sum(unitprice) ' sum of unitprice ' , count(productid) 'Total product categories',

avg(unitprice) 'Average price of the products' , min(unitprice) 'min of unitprice'

from product

go

select billid ,sum(quantity) 'sum of quantity'

from billdetail

group by billid

go

select \* from billdetail

select billid , productid , avg(quantity) ' Average number of products'

from billdetail

group by billid

having avg(quantity) >5

go

select productid , sum(quantity) ' total'

from billdetail

where productid = 2

group by all productid

go

select productid , sum(quantity) 'total'

from billdetail

group by productid

having sum(quantity) >5

go

select \* from supplier

order by supplierid desc

go

--8 viết ít nhất 5 các câu lệnh có sử dụng hàm hợp COUNT(), SUM(), AVG(), MAX(), MIN()

-- kết hợp với group by, có where, có having, có order by, có sub query

--9 viết ít nhất 5 câu lệnh dùng JOIN lấy thông tin từ nhiều bảng