*-- DROP TABLES IF EXISTS (nếu bạn đang chạy thử trên môi trường test)*

*DROP TABLE IF EXISTS [Order];*

*DROP TABLE IF EXISTS [Guest];*

*DROP TABLE IF EXISTS [DishSnapshot];*

*DROP TABLE IF EXISTS [Dish];*

*DROP TABLE IF EXISTS [Table];*

-- code schema:

CREATE TABLE [Account] (

id INT PRIMARY KEY IDENTITY(1,1),

name NVARCHAR(255) NULL,

email NVARCHAR(255) NULL,

password NVARCHAR(255) NULL,

avatar NVARCHAR(255),

role NVARCHAR(50) DEFAULT 'Employee',

ownerId INT,

createdAt DATETIME DEFAULT GETDATE(),

updatedAt DATETIME NULL,

);

CREATE TABLE [Dish] (

id INT PRIMARY KEY IDENTITY(1,1),

name NVARCHAR(255) NULL,

price INT NULL,

description NVARCHAR(MAX) NULL,

image NVARCHAR(255) NULL,

status NVARCHAR(50) NULL DEFAULT 'Available',

createdAt DATETIME DEFAULT GETDATE(),

updatedAt DATETIME NULL

);

CREATE TABLE [DishSnapshot] (

id INT PRIMARY KEY IDENTITY(1,1),

name NVARCHAR(255) NULL,

price INT NULL,

description NVARCHAR(MAX) NULL,

image NVARCHAR(255) NULL,

status NVARCHAR(50) NULL DEFAULT 'Available',

dishId INT,

createdAt DATETIME DEFAULT GETDATE(),

updatedAt DATETIME NULL,

);

CREATE TABLE [Table] (

number INT PRIMARY KEY IDENTITY(1,1),

capacity INT NULL,

status NVARCHAR(50) NULL DEFAULT 'Available',

token NVARCHAR(255) NULL,

createdAt DATETIME DEFAULT GETDATE(),

updatedAt DATETIME NULL

);

CREATE TABLE [Order] (

id INT PRIMARY KEY IDENTITY(1,1),

guestId INT,

tableNumber INT,

dishSnapshotId INT NULL,

quantity INT NULL,

orderHandlerId INT,

status NVARCHAR(50) NULL DEFAULT 'Pending',

createdAt DATETIME DEFAULT GETDATE(),

updatedAt DATETIME NULL,

);

CREATE TABLE [RefreshToken] (

token NVARCHAR(255) PRIMARY KEY,

accountId INT NULL,

expiresAt DATETIME NULL,

createdAt DATETIME DEFAULT GETDATE(),

);

CREATE TABLE [Guest] (

id INT PRIMARY KEY IDENTITY(1,1),

name NVARCHAR(255) NULL,

tableNumber INT,

refreshToken NVARCHAR(255),

refreshTokenExpiresAt DATETIME,

createdAt DATETIME DEFAULT GETDATE(),

updatedAt DATETIME NULL,

);

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-- thêm riêng ràng buộc các bảng:

-- Bảng Account

-- 1 id trong bảng Account có nhiều ownerId trong bảng Account

ALTER TABLE [Account] ADD CONSTRAINT fk\_\_\_Account\_ownerId\_\_\_Account\_id FOREIGN KEY (ownerId) REFERENCES [Account](id);

---> bảng [Account] có nhiều bản ghi (dòng) chứa cột ownerId

-- 1 id trong bảng Account có nhiều orderHandlerId trong bảng Order

ALTER TABLE [Order] ADD CONSTRAINT fk\_\_\_Order\_orderHandlerId\_\_\_Account\_id FOREIGN KEY (orderHandlerId) REFERENCES [Account](id);

---> bảng [Order] có nhiều bản ghi (dòng) chứa cột orderHandlerId

-- 1 id trong bảng Account có nhiều accountId trong bảng RefreshToken

ALTER TABLE [RefreshToken] ADD CONSTRAINT fk\_\_\_RefreshToken\_accountId\_\_\_Account\_id FOREIGN KEY (accountId) REFERENCES [Account](id);

---> bảng [RefreshToken] có nhiều bản ghi (dòng) chứa cột accountId

-- Bảng DishSnapshot

-- 1 id trong bảng Dish có nhiều dishId trong bảng DishSnapshot

ALTER TABLE [DishSnapshot] ADD CONSTRAINT fk\_\_\_DishSnapshot\_dishId\_\_\_Dish\_id FOREIGN KEY (dishId) REFERENCES [Dish](id);

---> bảng [DishSnapshot] có nhiều bản ghi (dòng) chứa cột dishId

-- Bảng Table

-- 1 number trong bảng Table có nhiều tableNumber trong bảng Order

ALTER TABLE [Order] ADD CONSTRAINT fk\_\_\_Order\_tableNumber\_\_\_Table\_number FOREIGN KEY (tableNumber) REFERENCES [Table](number);

---> bảng [Order] có nhiều bản ghi (dòng) chứa cột tableNumber

-- 1 number trong bảng Table có nhiều tableNumber trong bảng Guest

ALTER TABLE [Guest] ADD CONSTRAINT fk\_\_\_Guest\_tableNumber\_\_\_Table\_number FOREIGN KEY (tableNumber) REFERENCES [Table](number);

---> bảng [Guest] có nhiều bản ghi (dòng) chứa cột tableNumber

**-- 1 id trong bảng DishSnapshot có 1 dishSnapshotId trong bảng Order**

**-- Bước 1: Đảm bảo dishSnapshotId là duy nhất trong bảng Order**

**ALTER TABLE [Order]**

**ADD CONSTRAINT uq\_\_Order\_dishSnapshotId UNIQUE (dishSnapshotId);**

**-- Bước 2: Tạo khóa ngoại tham chiếu tới DishSnapshot**

**ALTER TABLE [Order]**

**ADD CONSTRAINT fk\_\_Order\_dishSnapshotId\_\_DishSnapshot\_id**

**FOREIGN KEY (dishSnapshotId) REFERENCES [DishSnapshot](id);**

-- 1 id trong bảng Guest có nhiều guestId trong bảng Order

ALTER TABLE [Order] ADD CONSTRAINT fk\_\_\_Order\_guestId\_\_\_Guest\_id FOREIGN KEY (guestId) REFERENCES [Guest](id);

---> bảng [Order] có nhiều bản ghi (dòng) chứa cột guestId

Bước 1:

***-- Thêm dữ liệu mẫu cho Table***

***INSERT INTO [Table] (number, description)***

***VALUES (101, 'Near window'), (102, 'Center'), (103, 'Outdoor'), (104, 'VIP'), (105, 'Bar');***

***-- Thêm dữ liệu mẫu cho Dish***

***INSERT INTO [Dish] (id, name)***

***VALUES (1, 'Pizza'), (2, 'Pasta'), (3, 'Steak'), (4, 'Salad'), (5, 'Sushi');***

***-- Thêm dữ liệu mẫu cho DishSnapshot (10 bản ghi)***

***INSERT INTO [DishSnapshot] (id, dishId, price)***

***VALUES***

***(1, 1, 10.50), (2, 2, 12.00), (3, 3, 18.75), (4, 4, 8.25), (5, 5, 15.00),***

***(6, 1, 11.00), (7, 2, 13.00), (8, 3, 19.00), (9, 4, 8.50), (10, 5, 15.50);***

***-- Thêm dữ liệu mẫu cho Table***

***INSERT INTO [Table] (number, description)***

***VALUES (201, 'Zone A'), (202, 'Zone B'), (203, 'Zone C'), (204, 'VIP'), (205, 'Patio');***

***-- Thêm dữ liệu mẫu cho Dish***

***INSERT INTO [Dish] (id, name)***

***VALUES (1, 'Pizza'), (2, 'Burger'), (3, 'Spaghetti'), (4, 'Sushi'), (5, 'Steak');***

***-- Thêm dữ liệu mẫu cho DishSnapshot (32 bản ghi)***

***INSERT INTO [DishSnapshot] (id, dishId, price)***

***VALUES***

***(1, 1, 10.5), (2, 2, 8.0), (3, 3, 12.0), (4, 4, 15.0), (5, 5, 20.0),***

***(6, 1, 10.8), (7, 2, 8.5), (8, 3, 12.5), (9, 4, 15.5), (10, 5, 21.0),***

***(11, 1, 11.0), (12, 2, 8.8), (13, 3, 13.0), (14, 4, 16.0),***

***(15, 1, 11.5), (16, 2, 9.0), (17, 3, 13.5), (18, 4, 16.5), (19, 5, 22.0),***

***(20, 1, 12.0), (21, 2, 9.5), (22, 3, 14.0), (23, 4, 17.0),***

***(24, 5, 23.0), (25, 1, 12.5), (26, 2, 10.0), (27, 3, 14.5), (28, 4, 17.5),***

***(29, 5, 24.0), (30, 1, 13.0), (31, 2, 10.5), (32, 3, 15.0);***

***-- Thêm Table (5 bàn)***

***INSERT INTO [Table] (number, description)***

***VALUES (301, 'Zone A'), (302, 'Zone B'), (303, 'Zone C'), (304, 'VIP'), (305, 'Garden');***

***-- Thêm 20 Dish***

***INSERT INTO [Dish] (id, name)***

***VALUES***

***(1, 'Pizza'), (2, 'Burger'), (3, 'Spaghetti'), (4, 'Sushi'), (5, 'Steak'),***

***(6, 'Fried Rice'), (7, 'Chicken Wings'), (8, 'Salad'), (9, 'Pancake'), (10, 'Tacos'),***

***(11, 'Ramen'), (12, 'Pho'), (13, 'Spring Rolls'), (14, 'Hotdog'), (15, 'Sandwich'),***

***(16, 'Lobster'), (17, 'Fish & Chips'), (18, 'Burrito'), (19, 'Curry'), (20, 'BBQ Ribs');***

***-- Thêm 20 DishSnapshot (giá random nhẹ)***

***INSERT INTO [DishSnapshot] (id, dishId, price)***

***VALUES***

***(1, 1, 10.5), (2, 2, 8.0), (3, 3, 12.0), (4, 4, 15.0), (5, 5, 20.0),***

***(6, 6, 9.5), (7, 7, 7.0), (8, 8, 6.5), (9, 9, 5.5), (10, 10, 7.5),***

***(11, 11, 13.0), (12, 12, 14.0), (13, 13, 8.5), (14, 14, 6.0), (15, 15, 7.8),***

***(16, 16, 25.0), (17, 17, 12.5), (18, 18, 11.0), (19, 19, 9.0), (20, 20, 22.0);***

Bước 2:

*-- 10. Tạo ngày ngẫu nhiên*

*DECLARE*

*@custom\_DATE\_one DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_two DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_three DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_four DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_five DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_six DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_seven DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_eight DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_nine DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),*

*@custom\_DATE\_ten DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE()));*

- 10. Tạo ngày ngẫu nhiên

DECLARE

@date1 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date2 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date3 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date4 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date5 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE()));

-- Tạo ngày ngẫu nhiên

DECLARE

@date1 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date2 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date3 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date4 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date5 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE()));

Bước 3:

*-- Tạo 5 khách hàng mới*

*INSERT INTO [Guest] (id, name, tableNumber)*

*VALUES*

*(1, 'Guest A', 101),*

*(2, 'Guest B', 102),*

*(3, 'Guest C', 103),*

*(4, 'Guest D', 104),*

*(5, 'Guest E', 105);*

*-- Thêm 5 khách hàng*

*INSERT INTO [Guest] (id, name, tableNumber)*

*VALUES*

*(1, 'Guest A', 201),*

*(2, 'Guest B', 202),*

*(3, 'Guest C', 203),*

*(4, 'Guest D', 204),*

*(5, 'Guest E', 205);*

*-- Thêm 5 khách hàng*

*INSERT INTO [Guest] (id, name, tableNumber)*

*VALUES*

*(1, 'Guest A', 301),*

*(2, 'Guest B', 302),*

*(3, 'Guest C', 303),*

*(4, 'Guest D', 304),*

*(5, 'Guest E', 305);*

***-- Tạo 10 đơn hàng mới với dishSnapshotId duy nhất (1-10)***

*-- Giả định các dishSnapshotId từ 1 đến 10 đã tồn tại trong bảng DishSnapshot*

*INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)*

*VALUES*

*(1, 1, 101, 1, @custom\_DATE\_one),*

*(2, 2, 102, 2, @custom\_DATE\_two),*

*(3, 3, 103, 3, @custom\_DATE\_three),*

*(4, 4, 104, 4, @custom\_DATE\_four),*

*(5, 5, 105, 5, @custom\_DATE\_five),*

*(6, 1, 101, 6, @custom\_DATE\_six),*

*(7, 2, 102, 7, @custom\_DATE\_seven),*

*(8, 3, 103, 8, @custom\_DATE\_eight),*

*(9, 4, 104, 9, @custom\_DATE\_nine),*

*(10, 5, 105, 10, @custom\_DATE\_ten);*

-- Insert 32 Order

-- Guest 1 - 10 món

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(1, 1, 201, 1, @date1),

(2, 1, 201, 2, @date1),

(3, 1, 201, 3, @date1),

(4, 1, 201, 4, @date1),

(5, 1, 201, 5, @date1),

(6, 1, 201, 6, @date1),

(7, 1, 201, 7, @date1),

(8, 1, 201, 8, @date1),

(9, 1, 201, 9, @date1),

(10, 1, 201, 10, @date1);

-- Guest 2 - 4 món

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(11, 2, 202, 11, @date2),

(12, 2, 202, 12, @date2),

(13, 2, 202, 13, @date2),

(14, 2, 202, 14, @date2);

-- Guest 3 - 8 món

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(15, 3, 203, 15, @date3),

(16, 3, 203, 16, @date3),

(17, 3, 203, 17, @date3),

(18, 3, 203, 18, @date3),

(19, 3, 203, 19, @date3),

(20, 3, 203, 20, @date3),

(21, 3, 203, 21, @date3),

(22, 3, 203, 22, @date3);

-- Guest 4 - 1 món

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(23, 4, 204, 23, @date4);

-- Guest 5 - 9 món

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(24, 5, 205, 24, @date5),

(25, 5, 205, 25, @date5),

(26, 5, 205, 26, @date5),

(27, 5, 205, 27, @date5),

(28, 5, 205, 28, @date5),

(29, 5, 205, 29, @date5),

(30, 5, 205, 30, @date5),

(31, 5, 205, 31, @date5),

(32, 5, 205, 32, @date5);

***-- Insert 32 Order (sử dụng DishSnapshot id random trong 1-20)***

-- Khách 1 (10 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(1, 1, 301, 1, @date1),

(2, 1, 301, 2, @date1),

(3, 1, 301, 3, @date1),

(4, 1, 301, 4, @date1),

(5, 1, 301, 5, @date1),

(6, 1, 301, 6, @date1),

(7, 1, 301, 7, @date1),

(8, 1, 301, 8, @date1),

(9, 1, 301, 9, @date1),

(10, 1, 301, 10, @date1);

-- Khách 2 (4 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(11, 2, 302, 11, @date2),

(12, 2, 302, 12, @date2),

(13, 2, 302, 13, @date2),

(14, 2, 302, 14, @date2);

-- Khách 3 (8 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(15, 3, 303, 15, @date3),

(16, 3, 303, 16, @date3),

(17, 3, 303, 17, @date3),

(18, 3, 303, 18, @date3),

(19, 3, 303, 19, @date3),

(20, 3, 303, 20, @date3),

(21, 3, 303, 1, @date3), -- Gọi lại món 1

(22, 3, 303, 2, @date3); -- Gọi lại món 2

-- Khách 4 (1 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(23, 4, 304, 3, @date4); -- Gọi lại món 3

-- Khách 5 (9 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(24, 5, 305, 4, @date5),

(25, 5, 305, 5, @date5),

(26, 5, 305, 6, @date5),

(27, 5, 305, 7, @date5),

(28, 5, 305, 8, @date5),

(29, 5, 305, 9, @date5),

(30, 5, 305, 10, @date5),

(31, 5, 305, 11, @date5),

(32, 5, 305, 12, @date5);

**❗ Tuy nhiên, trong script mẫu lúc nãy mình có ví dụ khách hàng gọi lại món cũ (dùng lại dishSnapshotId trùng), nên vi phạm UNIQUE!**

**Ví dụ lỗi (khách số 3):**

sql

Sao chépChỉnh sửa

(21, 3, 303, 1, @date3), -- gọi lại dishSnapshotId = 1

(22, 3, 303, 2, @date3); -- gọi lại dishSnapshotId = 2

Điều này **sai** vì mỗi dishSnapshotId phải **xuất hiện đúng 1 lần duy nhất** trong Order.

**✅ Kết luận:**

* **Script trước cần chỉnh sửa lại**, để **không trùng** dishSnapshotId giữa các đơn hàng.
* **Mỗi dishSnapshotId dùng đúng 1 lần**, đúng yêu cầu UNIQUE.

-- 0. DROP TABLES IF EXISTS (dọn sạch)

DROP TABLE IF EXISTS [Order];

DROP TABLE IF EXISTS [Guest];

DROP TABLE IF EXISTS [DishSnapshot];

DROP TABLE IF EXISTS [Dish];

DROP TABLE IF EXISTS [Table];

-- 1. Tạo bảng Table

CREATE TABLE [Table] (

number INT PRIMARY KEY,

description NVARCHAR(100)

);

-- 2. Tạo bảng Dish

CREATE TABLE [Dish] (

id INT PRIMARY KEY,

name NVARCHAR(100)

);

-- 3. Tạo bảng DishSnapshot

CREATE TABLE [DishSnapshot] (

id INT PRIMARY KEY,

dishId INT,

price DECIMAL(10,2),

FOREIGN KEY (dishId) REFERENCES [Dish](id)

);

-- 4. Tạo bảng Guest

CREATE TABLE [Guest] (

id INT PRIMARY KEY,

name NVARCHAR(100),

tableNumber INT,

FOREIGN KEY (tableNumber) REFERENCES [Table](number)

);

-- 5. Tạo bảng Order

CREATE TABLE [Order] (

id INT PRIMARY KEY,

guestId INT,

tableNumber INT,

dishSnapshotId INT UNIQUE,

createdAt DATETIME,

FOREIGN KEY (tableNumber) REFERENCES [Table](number),

FOREIGN KEY (guestId) REFERENCES [Guest](id),

FOREIGN KEY (dishSnapshotId) REFERENCES [DishSnapshot](id)

);

-- 6. Thêm 5 bàn

INSERT INTO [Table] (number, description)

VALUES (301, 'Zone A'), (302, 'Zone B'), (303, 'Zone C'), (304, 'VIP'), (305, 'Garden');

-- 7. Thêm 20 Dish (món ăn)

INSERT INTO [Dish] (id, name)

VALUES

(1, 'Pizza'), (2, 'Burger'), (3, 'Spaghetti'), (4, 'Sushi'), (5, 'Steak'),

(6, 'Fried Rice'), (7, 'Chicken Wings'), (8, 'Salad'), (9, 'Pancake'), (10, 'Tacos'),

(11, 'Ramen'), (12, 'Pho'), (13, 'Spring Rolls'), (14, 'Hotdog'), (15, 'Sandwich'),

(16, 'Lobster'), (17, 'Fish & Chips'), (18, 'Burrito'), (19, 'Curry'), (20, 'BBQ Ribs');

-- 8. Thêm 32 DishSnapshot (1 món = 1 Snapshot riêng biệt)

INSERT INTO [DishSnapshot] (id, dishId, price)

VALUES

(1, 1, 10.5), (2, 2, 8.0), (3, 3, 12.0), (4, 4, 15.0), (5, 5, 20.0),

(6, 6, 9.5), (7, 7, 7.0), (8, 8, 6.5), (9, 9, 5.5), (10, 10, 7.5),

(11, 11, 13.0), (12, 12, 14.0), (13, 13, 8.5), (14, 14, 6.0), (15, 15, 7.8),

(16, 16, 25.0), (17, 17, 12.5), (18, 18, 11.0), (19, 19, 9.0), (20, 20, 22.0),

(21, 1, 10.8), (22, 2, 8.2), (23, 3, 12.2), (24, 4, 15.2), (25, 5, 20.5),

(26, 6, 9.7), (27, 7, 7.2), (28, 8, 6.7), (29, 9, 5.7), (30, 10, 7.7),

(31, 11, 13.2), (32, 12, 14.2);

-- 9. Thêm 5 khách

INSERT INTO [Guest] (id, name, tableNumber)

VALUES

(1, 'Guest A', 301),

(2, 'Guest B', 302),

(3, 'Guest C', 303),

(4, 'Guest D', 304),

(5, 'Guest E', 305);

-- 10. Tạo ngày random

DECLARE

@date1 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date2 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date3 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date4 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date5 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE()));

-- 11. Phân bổ 32 món cho 5 khách, dishSnapshotId KHÔNG TRÙNG

-- Guest 1 (10 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(1, 1, 301, 1, @date1),

(2, 1, 301, 2, @date1),

(3, 1, 301, 3, @date1),

(4, 1, 301, 4, @date1),

(5, 1, 301, 5, @date1),

(6, 1, 301, 6, @date1),

(7, 1, 301, 7, @date1),

(8, 1, 301, 8, @date1),

(9, 1, 301, 9, @date1),

(10, 1, 301, 10, @date1);

-- Guest 2 (4 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(11, 2, 302, 11, @date2),

(12, 2, 302, 12, @date2),

(13, 2, 302, 13, @date2),

(14, 2, 302, 14, @date2);

-- Guest 3 (8 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(15, 3, 303, 15, @date3),

(16, 3, 303, 16, @date3),

(17, 3, 303, 17, @date3),

(18, 3, 303, 18, @date3),

(19, 3, 303, 19, @date3),

(20, 3, 303, 20, @date3),

(21, 3, 303, 21, @date3),

(22, 3, 303, 22, @date3);

-- Guest 4 (1 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(23, 4, 304, 23, @date4);

-- Guest 5 (9 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(24, 5, 305, 24, @date5),

(25, 5, 305, 25, @date5),

(26, 5, 305, 26, @date5),

(27, 5, 305, 27, @date5),

(28, 5, 305, 28, @date5),

(29, 5, 305, 29, @date5),

(30, 5, 305, 30, @date5),

(31, 5, 305, 31, @date5),

(32, 5, 305, 32, @date5);

-- 0. Dọn sạch database nếu cần

DROP TABLE IF EXISTS [Order];

DROP TABLE IF EXISTS [Guest];

DROP TABLE IF EXISTS [DishSnapshot];

DROP TABLE IF EXISTS [Dish];

DROP TABLE IF EXISTS [Table];

-- 1. Tạo bảng Table

CREATE TABLE [Table] (

number INT PRIMARY KEY,

description NVARCHAR(100)

);

-- 2. Tạo bảng Dish

CREATE TABLE [Dish] (

id INT PRIMARY KEY,

name NVARCHAR(100)

);

-- 3. Tạo bảng DishSnapshot

CREATE TABLE [DishSnapshot] (

id INT PRIMARY KEY,

dishId INT,

price DECIMAL(10,2),

FOREIGN KEY (dishId) REFERENCES [Dish](id)

);

-- 4. Tạo bảng Guest

CREATE TABLE [Guest] (

id INT PRIMARY KEY,

name NVARCHAR(100),

tableNumber INT,

FOREIGN KEY (tableNumber) REFERENCES [Table](number)

);

-- 5. Tạo bảng Order

CREATE TABLE [Order] (

id INT PRIMARY KEY,

guestId INT,

tableNumber INT,

dishSnapshotId INT UNIQUE,

createdAt DATETIME,

FOREIGN KEY (tableNumber) REFERENCES [Table](number),

FOREIGN KEY (guestId) REFERENCES [Guest](id),

FOREIGN KEY (dishSnapshotId) REFERENCES [DishSnapshot](id)

);

-- 6. Insert dữ liệu cho Table

INSERT INTO [Table] (number, description)

VALUES (401, 'Zone A'), (402, 'Zone B'), (403, 'Zone C'), (404, 'VIP'), (405, 'Garden');

-- 7. Insert dữ liệu cho Dish (20 món)

INSERT INTO [Dish] (id, name)

VALUES

(1, 'Pizza'), (2, 'Burger'), (3, 'Spaghetti'), (4, 'Sushi'), (5, 'Steak'),

(6, 'Fried Rice'), (7, 'Chicken Wings'), (8, 'Salad'), (9, 'Pancake'), (10, 'Tacos'),

(11, 'Ramen'), (12, 'Pho'), (13, 'Spring Rolls'), (14, 'Hotdog'), (15, 'Sandwich'),

(16, 'Lobster'), (17, 'Fish & Chips'), (18, 'Burrito'), (19, 'Curry'), (20, 'BBQ Ribs');

-- 8. Insert dữ liệu cho DishSnapshot (32 bản ghi khác nhau)

INSERT INTO [DishSnapshot] (id, dishId, price)

VALUES

(1, 1, 10.5), (2, 2, 8.0), (3, 3, 12.0), (4, 4, 15.0), (5, 5, 20.0),

(6, 6, 9.5), (7, 7, 7.0), (8, 8, 6.5), (9, 9, 5.5), (10, 10, 7.5),

(11, 11, 13.0), (12, 12, 14.0), (13, 13, 8.5), (14, 14, 6.0), (15, 15, 7.8),

(16, 16, 25.0), (17, 17, 12.5), (18, 18, 11.0), (19, 19, 9.0), (20, 20, 22.0),

(21, 1, 10.8), (22, 2, 8.2), (23, 3, 12.2), (24, 4, 15.2), (25, 5, 20.5),

(26, 6, 9.7), (27, 7, 7.2), (28, 8, 6.7), (29, 9, 5.7), (30, 10, 7.7),

(31, 11, 13.2), (32, 12, 14.2);

-- 9. Insert 5 khách hàng

INSERT INTO [Guest] (id, name, tableNumber)

VALUES

(1, 'Guest A', 401),

(2, 'Guest B', 402),

(3, 'Guest C', 403),

(4, 'Guest D', 404),

(5, 'Guest E', 405);

-- 10. Tạo ngày ngẫu nhiên

DECLARE

@date1 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date2 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date3 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date4 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE())),

@date5 DATETIME = DATEADD(SECOND, ABS(CHECKSUM(NEWID())) % 31536000, DATEADD(DAY, -365, GETDATE()));

-- 11. Insert 32 Order (không trùng dishSnapshotId)

-- Guest 1 (10 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(1, 1, 401, 1, @date1),

(2, 1, 401, 2, @date1),

(3, 1, 401, 3, @date1),

(4, 1, 401, 4, @date1),

(5, 1, 401, 5, @date1),

(6, 1, 401, 6, @date1),

(7, 1, 401, 7, @date1),

(8, 1, 401, 8, @date1),

(9, 1, 401, 9, @date1),

(10, 1, 401, 10, @date1);

-- Guest 2 (4 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(11, 2, 402, 11, @date2),

(12, 2, 402, 12, @date2),

(13, 2, 402, 13, @date2),

(14, 2, 402, 14, @date2);

-- Guest 3 (8 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(15, 3, 403, 15, @date3),

(16, 3, 403, 16, @date3),

(17, 3, 403, 17, @date3),

(18, 3, 403, 18, @date3),

(19, 3, 403, 19, @date3),

(20, 3, 403, 20, @date3),

(21, 3, 403, 21, @date3),

(22, 3, 403, 22, @date3);

-- Guest 4 (1 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(23, 4, 404, 23, @date4);

-- Guest 5 (9 món)

INSERT INTO [Order] (id, guestId, tableNumber, dishSnapshotId, createdAt)

VALUES

(24, 5, 405, 24, @date5),

(25, 5, 405, 25, @date5),

(26, 5, 405, 26, @date5),

(27, 5, 405, 27, @date5),

(28, 5, 405, 28, @date5),

(29, 5, 405, 29, @date5),

(30, 5, 405, 30, @date5),

(31, 5, 405, 31, @date5),

(32, 5, 405, 32, @date5);

# 📣 Kết quả:

| **Bảng** | **Số lượng bản ghi** | **Ghi chú** |
| --- | --- | --- |
| Dish | 20 | 20 món |
| DishSnapshot | 32 | 32 snapshot khác nhau |
| Guest | 5 | 5 khách |
| Order | 32 | 32 đơn hàng không trùng món |

Bạn có muốn mình thêm luôn **câu lệnh SELECT** để kiểm tra kết quả ngay sau khi insert không? (ví dụ: SELECT \* FROM [Order] JOIN [DishSnapshot] JOIN [Dish] JOIN [Guest]) cho dễ xem?