-- ============================================

-- 1. TẠO DATABASE

-- ============================================

CREATE DATABASE RestaurantData;

USE RestaurantData;

GO

-- ============================================

-- 2. BẢNG Tables: Danh sách các bàn

-- ============================================

CREATE TABLE Tables (

idTable INT PRIMARY KEY IDENTITY(1,1),

name NVARCHAR(100),

phone NVARCHAR(20),

time DATETIME,

personNumber INT,

price DECIMAL(18,2) DEFAULT 0,

status NVARCHAR(20) DEFAULT 'Empty'

);

GO

-- Khởi tạo 12 bàn trống

INSERT INTO Tables (name, time, personNumber, phone, status)

VALUES

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty'),

(NULL, GETDATE(), 0, NULL, 'Empty');

GO

-- ============================================

-- 3. BẢNG BookingKey: Lần đặt bàn & access key

-- ============================================

CREATE TABLE BookingKey (

idBooking INT PRIMARY KEY IDENTITY(1,1),

idTable INT, -- FK -> Tables

accessKey NVARCHAR(10),

time DATETIME,

phone NVARCHAR(20), -- thêm sau để dễ truy xuất

FOREIGN KEY (idTable) REFERENCES Tables(idTable)

);

GO

-- ============================================

-- 4. BẢNG TableDetail: Chi tiết món gọi trên mỗi lượt đặt

-- ============================================

CREATE TABLE TableDetail (

DetailID INT PRIMARY KEY IDENTITY(1,1),

idBooking INT, -- FK -> BookingKey

idTable INT, -- FK -> Tables

dishID INT, -- FK -> Dish

quantity INT DEFAULT 1,

price DECIMAL(18,2),

FOREIGN KEY (idBooking) REFERENCES BookingKey(idBooking),

FOREIGN KEY (idTable) REFERENCES Tables(idTable),

FOREIGN KEY (dishID) REFERENCES Dish(Id)

);

GO

-- ============================================

-- 5. BẢNG Dish: Danh mục món ăn

-- ============================================

CREATE TABLE Dish (

Id INT PRIMARY KEY IDENTITY(1,1),

Name NVARCHAR(100) NOT NULL,

Descrip NVARCHAR(255),

Price DECIMAL(18,2) NOT NULL,

Type NVARCHAR(50),

Picture NVARCHAR(255)

);

GO

-- Dữ liệu mẫu ban đầu

INSERT INTO Dish (Name, Descrip, Price, Type, Picture) VALUES

('Wagyu Beef', 'Premium beef steak', 150.00, 'Main Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\beefSteak.jpg'),

('Lobster', 'Grilled lobster', 180.00, 'Main Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\Lobster.jpg'),

('Spaghetti', 'Italian pasta with sauce', 90.00, 'Main Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\spaghetti.jpg'),

('Pho', 'Traditional Vietnamese soup', 50.00, 'Main Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\Pho.jpg'),

('Grilled Oysters', 'Baked oysters with cheese', 70.00, 'Start Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\Oyster.jpg'),

('Pumpkin Soup', 'Creamy pumpkin soup', 30.00, 'Start Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\soup.jpg'),

('Salad', 'Fresh vegetable salad', 25.00, 'Start Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\salad.jpg'),

('Roasted Chicken', 'Chicken roasted with herbs', 100.00, 'Main Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\chicken.jpg'),

('Red Wine', 'Luxury aged red wine', 200.00, 'Beverages', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\wine.jpg'),

('Orange Juice', 'Freshly squeezed orange', 15.00, 'Beverages', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\orangeJuice.jpg'),

('Watermelon Juice', 'Fresh watermelon juice', 12.00, 'Beverages', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSourcee\waterMelon.jpg'),

('Grape Juice', 'Fresh grape juice', 18.00, 'Beverages', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\Grape.jpg');

GO

-- Thêm 6 món mới (3 starter, 1 main dish, 2 beverages)

INSERT INTO Dish (Name, Descrip, Price, Type, Picture) VALUES

('Bruschetta', 'Grilled bread with tomato, garlic & basil', 45.00, 'Start Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\bruschetta.jpg'),

('Calamari Fritti', 'Fried squid rings with garlic aioli', 65.00, 'Start Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\calamari.jpg'),

('Stuffed Mushrooms', 'Baked mushrooms filled with cheese & herbs', 55.00, 'Start Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\stuffed\_mushrooms.jpg'),

('Grilled Salmon', 'Salmon fillet with lemon butter sauce', 120.00, 'Main Dish', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\salmon.jpg'),

('Mango Smoothie', 'Fresh mango blended with yogurt', 25.00, 'Beverages', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\mango\_smoothie.png'),

('Espresso', 'Strong Italian coffee shot', 20.00, 'Beverages', 'E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\espresso.jpg');

GO

-- ============================================

-- 6. BẢNG Ingredient: Kho nguyên liệu

-- ============================================

CREATE TABLE Ingredient (

Id INT PRIMARY KEY IDENTITY(1,1),

Name NVARCHAR(100) NOT NULL,

Quantity DECIMAL(18,2) NOT NULL,

Price DECIMAL(18,2) NOT NULL,

Original NVARCHAR(100),

PhoneNumber NVARCHAR(20)

);

GO

-- Dữ liệu mẫu ban đầu

INSERT INTO Ingredient (Name, Quantity, Price, Original, PhoneNumber) VALUES

('Wagyu Beef', 50000, 300.00, 'Kobe Farms', '12345678'),

('Lobster', 20000, 180.00, 'Atlantic Seafood', '12345679'),

('Spaghetti Noodles',100000,50.00, 'Italian Pasta House','12345677'),

('Beef Bone', 30000, 10.00, 'Local Butcher', '12345676'),

('Oyster', 40000, 20.00, 'Coastal Fisheries', '12345675'),

('Pumpkin', 20000, 5.00, 'Organic Farm', '12345674'),

('Lettuce', 50000, 3.00, 'Green Farm Supply','12345673'),

('Chicken', 30000, 80.00, 'Free Range Poultry','12345672'),

('Red Wine', 100000,200.00, 'French Winery', '12345671'),

('Orange', 50000, 2.00, 'Fresh Fruit Co.', '12345670'),

('Watermelon', 30000, 3.00, 'Fruit Valley', '12345677'),

('Grape', 40000, 4.00, 'Vineyards Farm', '1234567890');

GO

-- Thêm nguyên liệu cho các món mới (Bread..Water)

INSERT INTO Ingredient (Name, Quantity, Price, Original, PhoneNumber) VALUES

('Bread', 100000, 0.50, 'Local Bakery', '12345680'),

('Tomato', 80000, 0.20, 'Green Farm Supply', '12345681'),

('Garlic', 50000, 0.10, 'Spice Co.', '12345682'),

('Basil', 30000, 0.15, 'Herb Farm', '12345683'),

('Squid', 50000, 2.00, 'Seafood Market', '12345684'),

('Aioli', 30000, 1.50, 'Sauce Co.', '12345685'),

('Mushrooms', 40000, 1.00, 'Organic Farm', '12345686'),

('Cheese', 40000, 1.20, 'Dairy Co.', '12345687'),

('Herbs Mix', 30000, 0.80, 'Herb Farm', '12345688'),

('Salmon Fillet', 30000, 5.00, 'Fish Co.', '12345689'),

('Butter', 50000, 0.50, 'Dairy Co.', '12345690'),

('Lemon', 50000, 0.30, 'Citrus Farm', '12345691'),

('Mango', 60000, 0.80, 'Tropical Farm', '12345692'),

('Yogurt', 50000, 0.60, 'Dairy Farm', '12345693'),

('Coffee Beans', 70000, 0.10, 'Coffee Roasters', '12345694'),

('Water', 1000000, 0.01, 'Local Water Co.', '12345695');

GO

-- ============================================

-- 7. BẢNG DishIngredientAssignment: Phân công nguyên liệu

-- ============================================

CREATE TABLE DishIngredientAssignment (

ID INT PRIMARY KEY IDENTITY(1,1),

DishID INT, -- FK -> Dish

IngredientID INT, -- FK -> Ingredient

QuantityRequired DECIMAL(18,2),

FOREIGN KEY (DishID) REFERENCES Dish(Id),

FOREIGN KEY (IngredientID) REFERENCES Ingredient(Id)

);

GO

-- Gán nguyên liệu cho các món (tham khảo thứ tự ID sau khi INSERT)

INSERT INTO DishIngredientAssignment (DishID, IngredientID, QuantityRequired) VALUES

-- Món cũ

(1, 1, 500),(1, 4, 300),(2, 2, 400),(3, 3, 250),

(4, 1, 200),(4, 4, 300),(5, 5, 200),(6, 6, 150),

(7, 7, 100),(8, 8, 500),(9, 9, 750),(10, 10, 300),

(11,11,300),(12,12,250),

-- Món mới

(13,13,2),(13,14,50),(13,15,5),(13,16,5),

(14,17,200),(14,18,30),

(15,19,150),(15,20,50),(15,21,5),

(16,22,200),(16,23,20),(16,24,10),

(17,25,150),(17,26,100),

(18,27,20),(18,28,30);

GO

-- ============================================

-- 8. BẢNG Employee: Nhân viên

-- ============================================

CREATE TABLE Employee (

ID INT PRIMARY KEY IDENTITY(1,1),

Name NVARCHAR(100) NOT NULL,

Sex NVARCHAR(10) CHECK (Sex IN ('Male','Female','Other')),

Position NVARCHAR(50) NOT NULL,

BirthOfDay DATE NOT NULL,

PhoneNumber NVARCHAR(20),

Address NVARCHAR(255),

Picture NVARCHAR(255),

status NVARCHAR(20) DEFAULT 'Active'

);

GO

INSERT INTO Employee (Name, Sex, Position, BirthOfDay, PhoneNumber, Address, Picture, status) VALUES

(N'Nguyễn Việt Hiếu','Male','Manager','1998-07-15','+84 123-456-789',N'123 Đường Số 5, TP.HCM','E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\anh.jpg','Active'),

(N'Phạm Thiên Hoàng','Male','Chef','1995-04-20','+84 987-654-321', N'456 Nguyễn Trãi, Hà Nội','E:\HCMUTE\2024-2025\HKII\LapTrinhWindows\Test\RestaurantManagementSystem\RestaurantManagementSystem\imgSource\image1.jpg','Active');

GO

-- ============================================

-- 9. BẢNG Account: Tài khoản người dùng

-- ============================================

CREATE TABLE Account (

AccountID INT PRIMARY KEY IDENTITY(1,1),

Username NVARCHAR(100) NOT NULL UNIQUE,

Password NVARCHAR(255) NOT NULL,

Role NVARCHAR(50) NOT NULL DEFAULT 'Customer',

EmployeeID INT, -- FK -> Employee

status NVARCHAR(20) DEFAULT 'Active',

FOREIGN KEY (EmployeeID) REFERENCES Employee(ID)

);

GO

INSERT INTO Account (Username,Password,Role,EmployeeID,status) VALUES

('a','1','Manager',1,'Active'),

('b','1','Staff', 2,'Active');

GO

-- ============================================

-- 10. BẢNG PaymentHistory: Lịch sử thanh toán

-- ============================================

CREATE TABLE PaymentHistory (

idThanhToan INT PRIMARY KEY IDENTITY(1,1),

idBooking INT, -- FK -> BookingKey

idTable INT, -- FK -> Tables

time DATETIME DEFAULT GETDATE(),

totalAmount DECIMAL(18,2),

bookingTime DATETIME,

ingredientCost DECIMAL(18,2) NULL

);

GO

-- ============================================

-- 11. BẢNG UsedIngredient: Ghi nhận nguyên liệu đã sử dụng

-- ============================================

CREATE TABLE UsedIngredient (

id INT PRIMARY KEY IDENTITY(1,1),

idTable INT, -- FK -> Tables

DishName NVARCHAR(100) NOT NULL,

Name NVARCHAR(100) NOT NULL,

Quantity DECIMAL(18,2) NOT NULL,

Price DECIMAL(18,2) NOT NULL,

Amount INT,

UsedTime DATETIME NOT NULL DEFAULT GETDATE(),

FOREIGN KEY (idTable) REFERENCES Tables(idTable)

);

GO

-- ============================================

-- 12. BẢNG DishSold: Tổng số lượng món đã bán

-- ============================================

CREATE TABLE DishSold (

DishID INT PRIMARY KEY, -- FK -> Dish

TotalQuantity INT DEFAULT 0,

FOREIGN KEY (DishID) REFERENCES Dish(Id)

);

GO

-- Đồng bộ khởi tạo DishSold cho tất cả món

INSERT INTO DishSold (DishID, TotalQuantity)

SELECT Id, 0

FROM Dish

WHERE Id NOT IN (SELECT DishID FROM DishSold);

GO