

-- Create the Royal Products database

CREATE DATABASE RoyalProducts;

USE RoyalProducts;

-- Alter tables with rp_ prefix

ALTER TABLE rp_customers (

customer_id INT IDENTITY(100,10) PRIMARY KEY,

customer_name VARCHAR(100) NOT NULL,

customer_state CHAR(2) NOT NULL,

credit_limit DECIMAL(10, 2) NOT NULL DEFAULT 5000.00,

balance DECIMAL(10, 2) NOT NULL DEFAULT 0.00,

PRIMARY KEY (customer_id),

CONSTRAINT chk_customer_state CHECK (customer_state IN ('MI', 'IL', 'ON')),

CONSTRAINT chk_credit_limit CHECK (credit_limit <= 18000.00),

CONSTRAINT chk_balance CHECK (balance < credit_limit)

);

ALTER TABLE rp_reps (

rep_id INT AUTO_INCREMENT=10,

set SESSION auto_increment=5,

rep_name VARCHAR(100) NOT NULL,

commission_rate DECIMAL(4, 2) NOT NULL DEFAULT 4.00,

PRIMARY KEY (rep_id),

CONSTRAINT chk_commission_rate CHECK (commission_rate BETWEEN 3.00 AND 7.00)

);

CREATE TABLE rp_orders (

order_id INT AUTO_INCREMENT,

customer_id INT NOT NULL,

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order_date DATE NOT NULL,  
PRIMARY KEY (order_id),  
FOREIGN KEY (customer_id) REFERENCES rp_customers(customer_id),  
CONSTRAINT chk_order_date CHECK (order_date > '2021-01-01')  
);
```

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CREATE TABLE rp_products (  
    product_id INT AUTO_INCREMENT,  
    product_name VARCHAR(100) NOT NULL,  
    product_class CHAR(2) NOT NULL,  
    quantity_on_hand INT NOT NULL DEFAULT 0,  
    price DECIMAL(10, 2) NOT NULL,  
    PRIMARY KEY (product_id),  
    CONSTRAINT chk_product_class CHECK (product_class IN ('HW', 'SG', 'AP')),  
    CONSTRAINT chk_quantity_on_hand CHECK (quantity_on_hand BETWEEN 0 AND 150),  
    CONSTRAINT chk_price CHECK (price BETWEEN 20.00 AND 2000.00)  
);
```

```
CREATE TABLE rp_orders (  
    order_id INT AUTO_INCREMENT PRIMARY KEY,  
    order_date DATE,  
    UNIQUE INDEX (order_id)  
) AUTO_INCREMENT = 1001;
```

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CREATE TABLE rp_order_items (  
    Order_items_id INT PRIMARY KEY,  
    Order_id INT,  
    Product_id,  
    Quantity INT,
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Price DECIMAL (10,2)

FOREIGN KEY (order_id) REFERENCES rp_order (order_id)

);

-- Add foreign key constraints

ALTER TABLE rp_orders

ADD CONSTRAINT fk_customer_id FOREIGN KEY (customer_id) REFERENCES rp_customers(customer_id);