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CREATE TABLE users (
    user_id INT AUTO_INCREMENT PRIMARY KEY,
    username VARCHAR(50) UNIQUE NOT NULL,
    full_name VARCHAR(100),
    role ENUM('admin','manager','staff') DEFAULT 'staff',
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);

CREATE TABLE categories (
    category_id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    description TEXT
);

CREATE TABLE products (
    product_id INT AUTO_INCREMENT PRIMARY KEY,
    sku VARCHAR(50) UNIQUE NOT NULL,
    name VARCHAR(200) NOT NULL,
    category_id INT,
    unit VARCHAR(30),
    cost_price DECIMAL(12,2),
    selling_price DECIMAL(12,2),
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (category_id) REFERENCES categories(category_id)
);

CREATE TABLE suppliers (
    supplier_id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(200) NOT NULL,
    contact_name VARCHAR(100),
    phone VARCHAR(30),
    email VARCHAR(100),
    address TEXT
);

CREATE TABLE warehouses (
    warehouse_id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    location VARCHAR(200),
    phone VARCHAR(30)
);

CREATE TABLE inventory (
    inventory_id INT AUTO_INCREMENT PRIMARY KEY,
    product_id INT NOT NULL,
    warehouse_id INT NOT NULL,
    quantity DECIMAL(14,3) DEFAULT 0,
    reorder_point DECIMAL(14,3) DEFAULT 0,
    last_updated TIMESTAMP DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
    UNIQUE KEY uq_inventory_product_warehouse (product_id, warehouse_id),
    FOREIGN KEY (product_id) REFERENCES products(product_id),
    FOREIGN KEY (warehouse_id) REFERENCES warehouses(warehouse_id)
);

CREATE TABLE purchase_orders (
    po_id INT AUTO_INCREMENT PRIMARY KEY,
    po_number VARCHAR(50) UNIQUE NOT NULL,
    supplier_id INT NOT NULL,
    order_date DATE NOT NULL,
    expected_date DATE,
    status ENUM('pending','received','partially_received','cancelled') DEFAULT 'pending',
    total_amount DECIMAL(14,2) DEFAULT 0,
    created_by INT,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (supplier_id) REFERENCES suppliers(supplier_id),
    FOREIGN KEY (created_by) REFERENCES users(user_id)
);

CREATE TABLE purchase_lines (
    po_line_id INT AUTO_INCREMENT PRIMARY KEY,
    po_id INT NOT NULL,
    product_id INT NOT NULL,

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        quantity_ordered DECIMAL(14,3) NOT NULL,
        quantity_received DECIMAL(14,3) DEFAULT 0,
        unit_price DECIMAL(12,2) NOT NULL,
        line_total DECIMAL(14,2) AS (quantity_ordered * unit_price) STORED,
        FOREIGN KEY (po_id) REFERENCES purchase_orders(po_id) ON DELETE CASCADE,
        FOREIGN KEY (product_id) REFERENCES products(product_id)
    );

CREATE TABLE sales_orders (
    so_id INT AUTO_INCREMENT PRIMARY KEY,
    so_number VARCHAR(50) UNIQUE NOT NULL,
    customer_name VARCHAR(200),
    order_date DATE NOT NULL,
    status ENUM('pending','shipped','completed','cancelled') DEFAULT 'pending',
    total_amount DECIMAL(14,2) DEFAULT 0,
    created_by INT,
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (created_by) REFERENCES users(user_id)
);

CREATE TABLE sales_lines (
    so_line_id INT AUTO_INCREMENT PRIMARY KEY,
    so_id INT NOT NULL,
    product_id INT NOT NULL,
    warehouse_id INT NOT NULL,
    quantity DECIMAL(14,3) NOT NULL,
    unit_price DECIMAL(12,2) NOT NULL,
    line_total DECIMAL(14,2) AS (quantity * unit_price) STORED,
    FOREIGN KEY (so_id) REFERENCES sales_orders(so_id) ON DELETE CASCADE,
    FOREIGN KEY (product_id) REFERENCES products(product_id),
    FOREIGN KEY (warehouse_id) REFERENCES warehouses(warehouse_id)
);

CREATE TABLE stock_movements (
    movement_id INT AUTO_INCREMENT PRIMARY KEY,
    product_id INT NOT NULL,
    warehouse_id INT NOT NULL,
    change DECIMAL(14,3) NOT NULL,
    movement_type ENUM('purchase','sale','adjustment','transfer_in','transfer_out') NOT NULL,
    reference_id INT,
    reference_line_id INT,
    reason TEXT,
    moved_by INT,
    moved_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (product_id) REFERENCES products(product_id),
    FOREIGN KEY (warehouse_id) REFERENCES warehouses(warehouse_id),
    FOREIGN KEY (moved_by) REFERENCES users(user_id)
);

CREATE TABLE supplier_products (
    supplier_product_id INT AUTO_INCREMENT PRIMARY KEY,
    supplier_id INT NOT NULL,
    product_id INT NOT NULL,
    supplier_sku VARCHAR(100),
    price DECIMAL(12,2),
    lead_time_days INT,
    FOREIGN KEY (supplier_id) REFERENCES suppliers(supplier_id),
    FOREIGN KEY (product_id) REFERENCES products(product_id)
);

INSERT INTO users (username,full_name,role) VALUES
('admin','Admin User','admin'),
('store1','Store Staff','staff');

INSERT INTO categories (name,description) VALUES
('Electronics','Electronic items'),
('Stationery','Office supplies');

INSERT INTO products (sku,name,category_id,unit,cost_price,selling_price) VALUES
('SKU-1001','USB Cable 1m',1,'pcs',50.00,120.00),
('SKU-2001','A4 Notebook',2,'pcs',20.00,45.00);
INSERT INTO suppliers (name,contact_name,phone,email,address) VALUES

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('Fast Supplies Pvt Ltd','Ramesh','9999999999','ramesh@fastsup.com','Mumbai'),  
('PaperWorld','Suresh','8888888888','sales@paperworld.com','Delhi');
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INSERT INTO warehouses (name,location,phone) VALUES  
('Main Warehouse','Pune','1234567890'),  
('Outlet Store','Pune MG Road','0987654321');
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INSERT INTO inventory (product_id,warehouse_id,quantity,reorder_point) VALUES  
(1,1,100,20),  
(1,2,20,10),  
(2,1,300,50);
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