**Inventory Management System**

**InventoryManager.java**

package com.inventory;

import java.util.HashMap;

public class InventoryManager {

    private HashMap<String, Product> inventory = new HashMap<>();

    public void addProduct(Product product) {

        inventory.put(product.getProductId(), product);

        System.out.println("Product added: " + product.getProductId());

    }

    public void updateProduct(String productId, String name, int quantity, double price) {

        Product product = inventory.get(productId);

        if (product != null) {

            product.setProductName(name);

            product.setQuantity(quantity);

            product.setPrice(price);

            System.out.println("Product updated: " + productId);

        } else {

            System.out.println("Product not found!");

        }

    }

    public void deleteProduct(String productId) {

        if (inventory.remove(productId) != null) {

            System.out.println("Product deleted: " + productId);

        } else {

            System.out.println("Product not found!");

        }

    }

    public void displayAllProducts() {

        for (Product p : inventory.values()) {

            System.out.println(p);

        }

    }

}

**Main.java**

package com.inventory;

import com.inventory.\*;

public class Main {

    public static void main(String[] args) {

        InventoryManager manager = new InventoryManager();

        Product p1 = new Product("P101", "Mouse", 50, 499.99);

        Product p2 = new Product("P102", "Keyboard", 30, 899.99);

        manager.addProduct(p1);

        manager.addProduct(p2);

        manager.displayAllProducts();

        manager.updateProduct("P101", "Wireless Mouse", 45, 599.99);

        manager.deleteProduct("P102");

        manager.displayAllProducts();

    }

}

**Product.java**

package com.inventory;

public class Product {

    private String productId;

    private String productName;

    private int quantity;

    private double price;

    public Product(String productId, String productName, int quantity, double price) {

        this.productId = productId;

        this.productName = productName;

        this.quantity = quantity;

        this.price = price;

    }

    // Getters and Setters

    public String getProductId() {

        return productId;

    }

    public String getProductName() {

        return productName;

    }

    public int getQuantity() {

        return quantity;

    }

    public double getPrice() {

        return price;

    }

    public void setProductName(String name) {

        this.productName = name;

    }

    public void setQuantity(int quantity) {

        this.quantity = quantity;

    }

    public void setPrice(double price) {

        this.price = price;

    }

    @Override

    public String toString() {

        return "Product{" +

                "ID='" + productId + '\'' +

                ", Name='" + productName + '\'' +

                ", Quantity=" + quantity +

                ", Price=" + price +

                '}';

    }

}

