SUPERSET ID-6413402

DATA STRUCTURES AND ALGORITHM

CODE:

import java.util.HashMap;

import java.util.Map;

class Product {

int productId;

String productName;

int quantity;

double price;

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

this.productId = productId;

this.productName = productName;

this.quantity = quantity;

this.price = price;

}

public String toString() {

return productId + " | " + productName + " | Qty: " + quantity + " | Price: ₹" + price;

}

}

public class InventoryManagement {

Map<Integer, Product> inventory = new HashMap<>();

public void addProduct(Product product) {

inventory.put(product.productId, product);

System.out.println("Added: " + product);

}

public void updateProduct(int productId, int newQuantity, double newPrice) {

if (inventory.containsKey(productId)) {

Product p = inventory.get(productId);

p.quantity = newQuantity;

p.price = newPrice;

System.out.println("Updated: " + p);

} else {

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

}

}

public void deleteProduct(int productId) {

if (inventory.containsKey(productId)) {

Product removed = inventory.remove(productId);

System.out.println("Deleted: " + removed);

} else {

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

}

}

public void displayInventory() {

System.out.println("\nCurrent Inventory:");

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

System.out.println(p);

}

}

public static void main(String[] args) {

InventoryManagement system = new InventoryManagement();

Product p1 = new Product(101, "Keyboard", 20, 750.0);

Product p2 = new Product(102, "Mouse", 35, 500.0);

Product p3 = new Product(103, "Monitor", 10, 7000.0);

system.addProduct(p1);

system.addProduct(p2);

system.addProduct(p3);

system.displayInventory();

system.updateProduct(102, 40, 520.0);

system.deleteProduct(101);

system.displayInventory();

}

}

OUTPUT:

Added: 101 | Keyboard | Qty: 20 | Price: ₹750.0

Added: 102 | Mouse | Qty: 35 | Price: ₹500.0

Added: 103 | Monitor | Qty: 10 | Price: ₹7000.0

Current Inventory:

101 | Keyboard | Qty: 20 | Price: ₹750.0

102 | Mouse | Qty: 35 | Price: ₹500.0

103 | Monitor | Qty: 10 | Price: ₹7000.0

Updated: 102 | Mouse | Qty: 40 | Price: ₹520.0

Deleted: 101 | Keyboard | Qty: 20 | Price: ₹750.0

Current Inventory:

102 | Mouse | Qty: 40 | Price: ₹520.0

103 | Monitor | Qty: 10 | Price: ₹7000.0

