**Module 2**

**Exercise 1: Inventory Management System**

**Program:**

import java.util.\*;

class Main {

public static void main(String[] args) {

InventorySystem inv= new InventorySystem();

inv.addproduct(new Product(101,"Mobile phone",3,10000));

inv.addproduct(new Product(102,"Television",2,25000));

inv.displayInventory();

boolean remove1=inv.delete(102);

System.out.println(remove1==true?"Deleted":"Error in deleting");

boolean update1=inv.updateProduct(101,"Mobile phone",3,15000);

System.out.println(update1==true?"Updated":"Error in Updating");

inv.displayInventory();

}

public static 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;

}

@Override

public String toString() {

return "ID: " + productId + ", Name: " + productName + ", Qty: " + quantity + ", Price: " + price;

}

}

public static class InventorySystem{

ArrayList<Product>products=new ArrayList<>();

public void addproduct(Product product){

products.add(product);

}

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

for(Product p:products){

if(p.productId==productId){

p.productName=productName;

p.quantity=quantity;

p.price=price;

return true;

}

} return false;

}

public boolean delete(int productId){

for(Product p:products){

if(p.productId==productId){

products.remove(p);

return true;

}

} return false;

}

public void displayInventory() {

for (Product p : products) {

System.out.println(p);

}

}

}

}

**OUTPUT:**

