FILE NAME: “product.h”

CODE:

#include <iostream>

#include <string>

#include <vector>

#include <iomanip>

#ifndef PRODUCT\_H

#define PRODUCT\_H

using namespace std;

class Product{

    public:

        Product();

        Product(string name, string code, double price, int quantity);

        void SetName(string const &name);

        void SetCode(string const &code);

        void SetPrice(double const &price);

        void SetQuantity(int const &quantity);

        string GetName();

        string GetCode();

        double GetPrice();

        int GetQuantity();

    private:

        string name;

        string code;

        double price;

        int quantity;

};

class Inventory{

    private:

        vector<Product> products;

    public:

        Inventory();

        Inventory(vector<Product> const &products);

        void AddInventory(string const &name ,string const &code ,double const &price ,int const &quantity);

        void SellInventory(string const &code ,int const &quantity);

        void PrintInventory();

};

#endif

FILE NAME: “product.cpp”

CODE:

#include "product.h"

Product::Product() {

    name = "DEFAULT";

    code = "SKU0000";

    price = 0.00;

    quantity = 0;

}

Product::Product(string name, string code, double price, int quantity) {

    this->name = name;

    this->code = code;

    this->price = price;

    this->quantity = quantity;

}

void Product::SetName(string const &name) {

    this->name = name;

}

void Product::SetCode(string const &code) {

    this->code = code;

}

void Product::SetPrice(double const &price) {

    this->price = price;

}

void Product::SetQuantity(int const &quantity) {

    this->quantity = quantity;

}

string Product::GetName() {

    return name;

}

string Product::GetCode() {

    return code;

}

double Product::GetPrice() {

    return price;

}

int Product::GetQuantity() {

    return quantity;

}

Inventory::Inventory() {

    this->products = {};

}

Inventory::Inventory(vector<Product> const &products) {

    this->products = products;

}

void Inventory::AddInventory(string const &name,string const &code,double const &price,int const &quantity) {

    Product NewProduct(name, code, price, quantity);

    products.push\_back(NewProduct);

}

void Inventory::SellInventory(string const &code, int const &quantity) {

    for (Product& obj : products) {

        if(obj.GetCode() == code) {

            obj.SetQuantity(obj.GetQuantity()+quantity);

        }

    }

}

void Inventory::PrintInventory() {

    cout << "Name: " << products.back().GetName() << endl;

    cout << "Code: " << products.back().GetCode() << endl;

    cout << fixed << setprecision(2) << "Price: " << products.back().GetPrice() << endl;

    cout << "Quantity: " << products.back().GetQuantity() << endl << endl;

}

FILE NAME: “main.cpp”

CODE:  
#include "product.h"

#include "product.cpp"

int main() {

    Inventory inv1;

    inv1.AddInventory("Apple", "SKU234", 0.40, 3);

    inv1.PrintInventory();

    inv1.SellInventory("SKU234", 10-5);

    inv1.PrintInventory();

    inv1.AddInventory("Golden Delicious", "SKU555", 0.55, 4);

    inv1.PrintInventory();

    return 0;

}