

Object Oriented Programming

Assignment 1

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Cyber Security Fall 2024-B

C++ code:

#include<iostream>

using namespace std;

class Inventory

{

string description;

int balance;

public:

Inventory(string d, int b);

void Purchase();

void Sale();

void getStock();

};

int main()

{

int choice;

bool condition=false;

cout<<"\tCreating product 1\n";

string d\_p1;

int b\_p1;

cout<<"Enter the name of the product 1: ";

cin>>d\_p1;

cout<<"Enter the current stock of product 1: ";

cin>>b\_p1;

Inventory product1(d\_p1,b\_p1);

/\*Objects cannot be created inside the switch statement in this case because

if the use selected case of purchase in the first then object will not be

created and the other member functions cannot be called\*/

cout<<"\tCreating product 2\n";

string d\_p2;

int b\_p2;

cout<<"Enter the name of the product: ";

cin>>d\_p2;

cout<<"Enter the current stock: ";

cin>>b\_p2;

Inventory product2(d\_p2,b\_p2);

do

{

cout<<"Press 1 to Pruchase Product 1\n";

cout<<"Press 2 to Sale Product 1\n";

cout<<"Press 3 to see the current stock of Product 1\n";

cout<<"Press 4 to Pruchase Product 2\n";

cout<<"Press 5 to Sale Product 2\n";

cout<<"Press 6 to see the current stock of Product 2\n";

cout<<"Press 7 to Exit\n";

cout<<"Enter the operation you want to perform: ";

cin>>choice;

switch (choice)

{

case 1:

product1.Purchase();

break;

case 2:

product1.Sale();

break;

case 3:

product1.getStock();

break;

case 4:

product2.Purchase();

break;

case 5:

product2.Sale();

break;

case 6:

product2.getStock();

break;

case 7:

cout<<"Hope to see you soon\n\tExiting the program!";

condition=true;

break;

default:

cout<<"Please enter a valid operation!";

}

}while(condition==false);

}

Inventory::Inventory(string d="Unknown", int b=0)

{

if(b>20)

{

description=d;

balance=b;

}

else

cout<<"You have insufficient balance!!!";

}

void Inventory::Purchase()

{

cout<<"\tPurchasing\n";

int purchase;

bool check=false;

do

{

cout<<"Enter the amount of stock you purchased: ";

cin>>purchase;

if(purchase>0)

{

balance+=purchase;

cout<<"Your updated stock is: "<<balance<<endl;

check=true;

}

else

cout<<"Please Enter a positive number!";

}while(check==false);

}

void Inventory::Sale()

{

cout<<"\tSale\n";

int sale, difference;

bool check=false;

do

{

cout<<"Enter the amount of stock you want to sale: ";

cin>>sale;

difference=balance-sale;

if(difference>=20)

{

balance-=sale;

cout<<"Your updated stock is: "<<balance<<endl;

check=true;

}

else

cout<<"Not enough stock! The maximum amount that can be sold is: "<<balance-20<<endl;

}while(check==false);

}

void Inventory::getStock()

{

cout<<"\tGetting Stock\n";

cout<<"Your current stock is: "<<balance<<endl;

}

Output:



