#include <iostream>

#include <fstream>

#include <string>

#include <vector>

using namespace std;

class Software{

protected:

long long int PN;

string N;

char A[100];

string password;

char Pname[100];

int Pcode;

char Psize[10];

double Pprice;

float Ptax;

public:

void Run();

void Admin();

void User1();

void User2();

void Sales();

void SalesReturn();

void PrintInvoice();

void inventory();

void user();

void discount();

void productpricing();

void salessummary();

void producttype();

void Viewinventory();

void addBeerWine();

void addGrocery();

void editinventory();

void Deleteinventory();

void Display(){

cout<<"\t"<<Pcode<<"\t\t"<<Pname<<"\t\t\t\t"<<Psize<<"\t\t\t"<<Pprice<<".00\t\t"<<Ptax<<"%"<<endl;

}

};

class Customer:public Software{

public:

void CustomerData(){

fstream cinfo;

cout<<"Enter Customer Phone Number:\t";

cin>>PN;

cout<<"Enter Customer Nmae:\t";

cin>>N;

cinfo.open("Cinfo",ios::app);

if (cinfo.is\_open()){

cinfo<<"hello";

cinfo<<"Bye";

cinfo.close();

}

}

};

void Software::Run(){

int option;

string password;

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\t\t\t\t\t\t\t\t\t HIPPO MART FERGUSON \t\t \n";

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<" Welcome To system log In. Select an option. \n";

cout<<"\n"<<endl;

cout<<"\n"<<endl;

cout<<"\t1) Admin\n";

cout<<"\n"<<endl;

cout<<"\t2) User 1\n";

cout<<"\n"<<endl;

cout<<"\t3) User 2\n";

cout<<"\n"<<endl;

cout<<"\t4) Exit\n"<<endl;

cout<<"\n"<<endl;

cin>>option;

cout<<"\n"<<endl;

switch(option){

case 1:

cout<<"Enter Admin Password:\t";

cin>>password;

if(password == "Admin"){

Admin();

cout<<"\n";

}

else {

cout<<"\n \*\*\*\*Incorrect Password\*\*\*\*"<<endl;

cout<<" Try Again !!!\n";

Run();

}

break;

case 2:

cout<<"Enter User1 Password:\t";

cin>>password;

if(password == "Admin"){

User1();

cout<<"\n";

}

else {

cout<<"\n \*\*\*\*Incorrect Password\*\*\*\*"<<endl;

cout<<" Try Again !!!";

}

break;

case 3:

cout<<"Enter User2 Password:\t";

cin>>password;

if(password == "Admin"){

User2();

cout<<"\n";

}

else {

cout<<"\n \*\*\*\*Incorrect Password\*\*\*\*"<<endl;

cout<<" Try Again !!!";

break;

}

case 4:

exit(0);

break;

default:

cout<<"Invalid Selection\n";

Run();

}

}

void Software::Admin(){

int Option;

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\t\t\t\t\t\t\t\tHIPPO MART FERGUSON (ADMIN PANEL)\t\t \n";

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\n"<<endl;

cout<<" Hi There, Select an option To Proceed. \n";

cout<<"\n"<<endl;

cout<<" 1)\t Inventory \n"<<endl;

cout<<"\n"<<endl;

cout<<" 2)\t Add/Delete User\n"<<endl;

cout<<"\n"<<endl;

cout<<" 3)\t Set Discount/Reward\n"<<endl;

cout<<"\n"<<endl;

cout<<" 4)\t Product Pricing\n"<<endl;

cout<<"\n"<<endl;

cout<<" 5)\t Sales Summary\n"<<endl;

cout<<"\n"<<endl;

cout<<" 6)\t Return to Main Menu\n"<<endl;

cout<<"\n"<<endl;

cin>>Option;

switch (Option) {

case 1: {

inventory();

break;

}

case 2: {

user();

break;

}

case 3: {

discount();

break;

}

case 4: {

productpricing();

break;

}

case 5: {

salessummary();

break;

}

case 6: {

Run();

break;

}

default:

cout << "Invalid Selection Try Again\n"<<endl;

Admin();

}

}

void Software::User1(){

int Option;

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\t\t\t\t\t\t\t\tHIPPO MART FERGUSON (USER 1)\t\t \n";

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<" Hi There, Select an option To Proceed. \n";

cout<<"\n"<<endl;

cout<<" 1)\t Sales\n"<<endl;

cout<<"\n"<<endl;

cout<<" 2)\t Sales Return\n"<<endl;

cout<<"\n"<<endl;

cout<<" 3)\t Print Invoice\n"<<endl;

cout<<"\n"<<endl;

cout<<" 4)\t Customer Information\n"<<endl;

cout<<"\n"<<endl;

cout<<" 5)\t Return to Main Menu\n"<<endl;

cout<<"\n"<<endl;

cin>>Option;

switch (Option) {

case 1: {

Sales();

break;

}

case 2: {

SalesReturn();

break;

}

case 3: {

PrintInvoice();

break;

}

case 4: {

Customer b;

b.CustomerData();

break;

}

case 5: {

Run();

break;

}

default:

cout << "invalid choice\n"<<endl;

User1();

}

}

void Software::Sales(){

Software x;

int Choice;

int code,Q;

long long int N;

char p[100];

cout<<"----------------------------------------------------------------------------------------------------------------------------------------------------------------------------\n";

cout<<"\tITEM CODE\tDESCRIPTION Variable \t\tPrice Tax\n";

cout<<"----------------------------------------------------------------------------------------------------------------------------------------------------------------------------\n";

fstream file;

file.open("product.txt",ios::binary|ios::in);

if(!file){

cout<<"ERROR IN OPENING FILE \n";

return;

}

while(file){

if(file.read((char\*)&x,sizeof(x)))

x.Display();

}

file.close();

cout<<"----------------------------------------------------------------------------------------------------------------------------------------------------------------------------\n";

cout<<"\n"<<endl;

cout<<"\t>>>>>>>>>>Create New Sale<<<<<<<<<<\t\n";

cout<<"\n"<<endl;

Customer F;

F.CustomerData();

do{

cout <<"Enter Product Code to Add Item:";

cin>>code;

cout<<"Enter Product Quantity:";

cin>>Q;

cout<<"Add More Item";

cin>>Choice;

}

while(Choice!=1);

}

void Software::SalesReturn(){

cout<<"working on it";

}

void Software::PrintInvoice(){

cout<<"working on it";

}

void Software::User2(){

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\t\t\t\t\t\t\t\tHIPPO MART FERGUSON (USER 2)\t\t \n";

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<" Hi There, Select an option To Proceed. \n";

cout<<"\n"<<endl;

cout<<" 1)\t Sales\n"<<endl;

cout<<"\n"<<endl;

cout<<" 2)\t Sales Return\n"<<endl;

cout<<"\n"<<endl;

cout<<" 3)\t Print Invoice\n"<<endl;

cout<<"\n"<<endl;

cout<<" 4)\t Customer Information\n"<<endl;

cout<<"\n"<<endl;

cout<<" 5)\t Exit \n"<<endl;

cout<<"\n"<<endl;

}

void Software::inventory(){

int Option;

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\t\t\t\t\t\t\t\t\tINVENTORY MANAGEMENT \t\t \n";

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\n"<<endl;

cout<<" Hi There, Select an option To Proceed. \n";

cout<<"\n"<<endl;

cout<<" 1)\t Add New Product \n"<<endl;

cout<<"\n"<<endl;

cout<<" 2)\t Update Product \n"<<endl;

cout<<"\n"<<endl;

cout<<" 3)\t Delete Product \n"<<endl;

cout<<"\n"<<endl;

cout<<" 4)\t View Inventory \n"<<endl;

cout<<"\n"<<endl;

cout<<" 5)\t Return to Main Menu\n"<<endl;

cout<<"\n"<<endl;

cin>>Option;

switch (Option) {

case 1: {

producttype();

break;

}

case 2: {

editinventory();

break;

}

case 3: {

Deleteinventory();

break;

}

case 4: {

Viewinventory();

break;

}

case 5: {

Admin();

break;

}

default:

cout << "invalid choice";

}

}

void Software::producttype(){

int a;

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\t\t\t\t\t\t\t\t\tINVENTORY MANAGEMENT \t\t \n";

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n";

cout<<"\n"<<endl;

cout<<" Hi There, Select a Departmen To Add New Product. \n";

cout<<"\n"<<endl;

cout<<" 1)\t Beer & Wine \n"<<endl;

cout<<"\n"<<endl;

cout<<" 2)\t Grocery \n"<<endl;

cout<<"\n"<<endl;

cout<<" 3)\t Return To Main Menu \n"<<endl;

cout<<"\n"<<endl;

cin>>a;

switch(a)

{

case 1:

{

addBeerWine();

break;

}

case 2: {

addGrocery();

break;

}

case 3: {

inventory();

break;

}

default:

cout << "invalid choice";

}

};

void Software::addBeerWine(){

ofstream fout;

Software s;

cout<<"Enter Product Code:\t";

cin>>s.Pcode;

cout<<"Enter Product Name:\t";

cin.ignore(1);

cin.getline(s.Pname,100);

cout<<"Enter Product Size:\t"<<endl;

cin.ignore(0);

cin.getline(s.Psize,10);

cout<<"Enter Product Price:\t"<<endl;

cin>>s.Pprice;

cout<<"Enter Product Tax Rate:\t"<<endl;

cin>>s.Ptax;

fout.open("product.txt",ios::app|ios::binary);

fout.seekp(0,ios::beg); //go to start

fout.write((char\*)&s,sizeof(s));

fout.close();

cout<<"\tItem Added successfully...\n"<<endl;

inventory();

}

void Software::addGrocery(){

ofstream fout;

Software s;

cout<<"Enter Product Code:\t";

cin>>s.Pcode;

cout<<"Enter Product Name:\t";

cin.ignore(1);

cin.getline(s.Pname,100);

cout<<"Enter Product Size:\t"<<endl;

cin.ignore(0);

cin.getline(s.Psize,10);

cout<<"Enter Product Price:\t"<<endl;

cin>>s.Pprice;

cout<<"Enter Product Tax Rate:\t"<<endl;

cin>>s.Ptax;

fout.open("product.txt",ios::app|ios::binary);

fout.seekp(0,ios::beg); //go to start

fout.write((char\*)&s,sizeof(s));

fout.close();

cout<<"\t Item Added successfully...\n"<<endl;

inventory();

}

void Software::salessummary(){

cout<<"working on it";

}

void Software::user(){

cout<<"working on it";

}

void Software::discount(){

cout<<"working on it";

}

void Software::productpricing(){

cout<<"working on it";

}

void Software::Viewinventory(){

Software x;

fstream file;

cout<<"----------------------------------------------------------------------------------------------------------------------------------------------------------------------------\n";

cout<<"\tITEM CODE\tDESCRIPTION Variable \t\tPrice Tax\n";

cout<<"----------------------------------------------------------------------------------------------------------------------------------------------------------------------------\n";

file.open("product.txt",ios::binary|ios::in);

if(!file){

cout<<"ERROR IN OPENING FILE \n";

return;

}

while(file){

if(file.read((char\*)&x,sizeof(x)))

x.Display();

}

file.close();

cout<<"--------------------------------------------------------------------------------------------------------------------------------------------------------------------------\n";

inventory();

}

void Software::editinventory(){

int code;

int found = 0;

Software s;

ofstream fout("temp.txt", ios::binary);

ifstream fin("product.txt", ios::binary);

cout << "\n Enter Product Code To Update: ";

cin >> code;

while (fin.read((char\*)&s, sizeof(Software)))

{

if (code == s.Pcode)

{

found = 1;

cout << "Enter Product Code:\t";

cin >> s.Pcode;

cout << "Enter Product Name:\t";

cin.ignore(1);

cin.getline(s.Pname, 100);

cout << "Enter Product Size:\t";

cin.ignore(1);

cin.getline(s.Psize, 10);

cout << "Enter Product Price:\t";

cin >> s.Pprice;

cout << "Enter Product Tax Rate:\t";

cin >> s.Ptax;

}

fout.write((char\*)&s, sizeof(Software));

}

fin.close();

fout.close();

remove("product.txt");

rename("temp.txt", "product.txt");

if (found != 0)

cout << "\n Product Updated Sucessfully....\n";

else

cout << "\n Record does not exist...\n";

inventory();

}

void Software::Deleteinventory(){

int code;

int found=0;

Software s;

ofstream fout("temp.txt",ios::binary);

ifstream fin ("product.txt",ios::binary);

cout<<"\n Enter Product Code To Delete Item :";

cin>>code;

while(fin.read((char\*)&s,sizeof(Software)))

{

if(code!=s.Pcode){

fout.write((char\*)&s,sizeof(Software));

found=1;

}

}

fin.close();

fout.close();

remove("product.txt");

rename("temp.txt","product.txt");

if(found!=0)

cout<<"\n Product Removed From Inventory Sucessfully....\n"<<endl;

else

cout<<"\n Record does not exist...\n";

inventory();

}

int main(){

Software I;

I.Run();

return 0;

}