#include <iostream>

#include <stdio.h>

#include <string>

#include <fstream>

#include <sstream>

using namespace std;

class Inventory{

 private:

 int itemID;

 char itemName[20];

 float itemPrice;

 float quantity;

 float totalPrice;

 public:

 void readItem(){

 cout<<"Please enter item id: ";

 cin>>itemID;

 cout<<"Please enter item name: ";

 cin>>itemName;

 cout<<"Please enter item price: ";

 cin>>itemPrice;

 cout<<"Please enter item quantity: ";

 cin>>quantity;

 totalPrice = itemPrice \* quantity;

 char inventory[] = "Inventory.txt";

 fstream fs;

 fs.open(inventory, ios::app);

 if(!fs.is\_open()){

 cout<<"Error Opeingin File, try again!";

 return;

 }

 fs<<"Item id:"<<itemID<<"\t Item name:"<<itemName;

 fs<<"\t ItemPrice:"<<itemPrice<<"\t Quantity:"<<quantity;

 fs<<"\t TotalPrice:"<<totalPrice<<"\n";

 if(!fs.bad()){

 cout<<"Inventory record(s) added successfully."<<endl;

 }

 fs.close();

 }

 void displyItem(){

 fstream fs;

 fs.open("Inventory.txt");

 if(!fs.is\_open()){

 cout<<"ERROE IN OPENING FILE";

 }

 string line;

 while ( getline (fs, line) ){

 cout << line <<endl;

 }

 fs.close();

 }

 int getItemID(){

 return itemID;

 }

 float getPrice(){

 return itemPrice;

 }

 float getQuantity(){

 return quantity;

 }

 void updateQuantity(float q){

 quantity = q;

 }

};

//Deleting existing file

void deleteExistingFile(){

 fstream fs;

 fs.open("Inventory.txt");

 if(fs.is\_open()){

 fs.close();

 remove("Inventory.txt");

 }

}

//Appending item in file

void appendToFille(){

 Inventory inv;

 inv.readItem();

}

//Displaying items

void displayAll(){

 Inventory inv;

 inv.displyItem();

}

//Increasing Quantity of item

void increaseQuanity(){

 int id;

 float q;

 Inventory inv;

 cout<<"Enter item id:"<<endl;

 cin>>id;

 cout<<"Add quantity? ";

 cin>>q;

 inv.updateQuantity(q);

 ifstream fs;

 fs.open("Inventory.txt");

 if(!fs.is\_open()){

 cout<<"ERROE IN OPENING FILE";

 }

 string line, targetId, newContent, Q, T;

 int colonCount = 0, spaceCount = 0, preSpCount = 0;

 int strToInt, nq, t, newQuantity;

 bool found = false;

 while(getline(fs, line)){

 if(!found){

 for(int i = 0; i < line.length(); i++){

 if(line[i] == ':'){

 colonCount++;

 }

 if(isspace(line[i])){

 spaceCount++;

 }

 if(colonCount == 1 && spaceCount == 1 && line[i] != ':'){

 targetId += line[i];

 stringstream ss(targetId);

 ss >> strToInt;

 if(strToInt == id){

 found = true;

 }

 }

 if(colonCount == 5){

 preSpCount = spaceCount;

 }

 if(found && colonCount == 4 && line[i] != ':' && spaceCount == 8){

 Q += line[i];

 if(isspace(line[i + 1]) || line[i + 1] == '\t' || line[i + 1] == '\0' || line[i + 1] == '\n'){

 stringstream ss2(Q);

 ss2 >> nq;

 stringstream ss3;

 newQuantity = nq + inv.getQuantity();

 ss3 << newQuantity;

 string temp;

 ss3 >> temp;

 newContent += temp;

 }

 }else if(found && colonCount == 5 && line[i] != ':' && preSpCount == spaceCount){

 T += line[i];

 if(isspace(line[i + 1]) || line[i + 1] == '\0' || line[i + 1] == '\n'){

 stringstream ss4(T);

 ss4 >> t;

 int tempPrice = t / nq;

 tempPrice \*= newQuantity;

 stringstream ss5;

 ss5 << tempPrice;

 string temp2;

 ss5 >> temp2;

 cout<<"if"<<tempPrice<<temp2;

 newContent += temp2;

 }

 }else{

 newContent += line[i];

 }

 }

 }else{

 newContent += line;

 }

 }

 fs.close();

 if(found){

 ofstream of;

 of.open("Inventory.txt", ios::trunc);

 of << newContent;

 of.close();

 }

}

void showMenu(){

 cout<<"ENTER CHOICE"<<endl;

 cout<<"1. ADD AN INVENTORY ITEM"<<endl;

 cout<<"2. DISPLAY FILE DATA"<<endl;

 cout<<"3. INCREASE QUANTITY"<<endl;

 cout<<"Please select a choice:";

}

int main(){

 deleteExistingFile();

 char useAgain;

 do{

 showMenu();

 int ch;

 cin>>ch;

 switch(ch){

 case 1:

 appendToFille();

 break;

 case 2:

 displayAll();

 break;

 case 3:

 increaseQuanity();

 break;

 }

 cout<<endl<<"Do you want to continue? : ";

 cin>>useAgain;

 }while(useAgain == 'y' || useAgain == 'Y');