#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');