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Assignment No:- 6

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Subject:- OOP

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#include <iostream> //standard input output stream header file

#include <algorithm> //The STL algorithms are generic because they can operate on a

variety of data structures

#include <vector> //The header file for the STL vector library is vector.

using namespace std;

class Item // creating class Item

{

public:

char name[10];

int quantity;

int cost;

int code;

bool operator==(const Item& i1) //Boolean operators allow you to create more

complex conditional statements

{

if(code==i1.code) //operator will return 1 if thecomparison is true, or 0 if the

comparison is false

return 1;

return 0;

}

bool operator<(const Item& i1)

{

if(code<i1.code) //operator will return 1 if the comparison is true, or 0 if the

comparison is false

return 1;

return 0;

}

};

vector<Item> o1;

void print(Item &i1);

void display();

void insert();

void search();

void dlt();

bool compare(const Item &i1, const Item &i2)

{

//if (i1.name != i2.name) return i1.cost < i2.cost;

return i1.cost < i2.cost;

}

int main()

{

int ch;

do

{

cout<<"\n\* \* \* \* \* Menu \* \* \* \* \*";

cout<<"\n1.Insert";

cout<<"\n2.Display";

cout<<"\n3.Search";

cout<<"\n4.Sort";

cout<<"\n5.Delete";

cout<<"\n6.Exit";

cout<<"\nEnter your choice : ";

cin>>ch;

switch(ch)

{

case 1:

insert();

break;

case 2:

display();

break;

case 3:

search();

break;

case 4:

sort(o1.begin(),o1.end(),compare);

cout<<"\n\n Sorted on Cost : ";

display();

break;

case 5:

dlt();

break;

case 6:

exit(0);

}

}while(ch!=7);

return 0;

}

void insert()

{

Item i1;

cout<<"\nEnter Item Name : ";

cin>>i1.name;

cout<<"\nEnter Item Quantity : ";

cin>>i1.quantity;

cout<<"\nEnter Item Cost : ";

cin>>i1.cost;

cout<<"\nEnter Item Code : ";

cin>>i1.code;

o1.push\_back(i1);

}

void display()

{

for\_each(o1.begin(),o1.end(),print);

}

void print(Item &i1)

{

cout<<"\n";

cout<<"\nItem Name : "<<i1.name;

cout<<"\nItem Quantity : "<<i1.quantity;

cout<<"\nItem Cost : "<<i1.cost;

cout<<"\nItem Code : "<<i1.code;

cout<<"\n\n";

}

void search()

{

vector<Item>::iterator p;

Item i1;

cout<<"\nEnter Item Code to search : ";

cin>>i1.code;

p=find(o1.begin(),o1.end(),i1);

if(p==o1.end())

{

cout<<"\nNot found!!!";

}

else

{

cout<<"\nFound!!!";

}

}

void dlt()

{

vector<Item>::iterator p;

Item i1;

cout<<"\nEnter Item Code to delete : ";

cin>>i1.code;

p=find(o1.begin(),o1.end(),i1);

if(p==o1.end())

{

cout<<"\nNot found!!!";

}

else

{

o1.erase(p);

cout<<"\nDeleted!!!";

}}