**ASSIGNMENT 6 43**

#include <iostream>

#include <algorithm>

#include <vector>

using namespace std;

class Item

{

public:

char name[10];

int quantity;

int cost;

int code;

bool operator == (const Item& i1)

{

return code == i1.code;

}

};

vector<Item> o1;

void print(Item &i1);

void display();

void insert();

void search();

void dlt();

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

{

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 << "\nltem Name:" << i1.name;

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

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

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

}

void search()

{

Item i1;

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

cin>>i1.code;

vector<Item> :: iterator p;

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

if(p == o1.end())

{

cout << "\nNot found.";

}

else

{

cout << "\nFound." << endl;

cout << "Item Name : " << p ->name << endl;

cout << "Item Quantity : " << p->quantity << endl;

cout << "Item Cost : " << p ->cost << endl;

cout << "Item Code: " << p ->code << endl;

}

}

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.";

}

}

**OUTPUT**

\*\* Menu \*\*

1.Insert

2.Display

3.Search

4.Sort

5.Delete

6.Exit

Enter your choice:1

Enter Item Name:Book

Enter Item Quantity:100

Enter Item Cost:199

Enter Item Code:1011

\*\* Menu \*\*

1.Insert

2.Display

3.Search

4.Sort

5.Delete

6.Exit

Enter your choice:1

Enter Item Name:Bag

Enter Item Quantity:60

Enter Item Cost:599

Enter Item Code:1021

\*\* Menu \*\*

1.Insert

2.Display

3.Search

4.Sort

5.Delete

6.Exit

Enter your choice:2

ltem Name:Book

ltem Quantity:100

ltem Cost:199

ltem Code:1011

ltem Name:Bag

ltem Quantity:60

ltem Cost:599

ltem Code:1021

\*\* Menu \*\*

1.Insert

2.Display

3.Search

4.Sort

5.Delete

6.Exit

Enter your choice:6