**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Assignment No6 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

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**Write C++ program using STL for sorting and searching user defined records such as Item records (Item code, name, cost, quantity etc) using vector container.**

#include<iostream>

#include<algorithm> #include<vector>

using namespace std; int n; class Item

{ public:

char name[10]; int quantity; int cost; int code;

bool operator==(const Item& i1)

{

if(code==i1.code)

return 1; return 0;

}

bool operator<(const Item& i1)

{

if(code<i1.code)

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)

{

return i1.cost < i2.cost;

} int main() { int ch;

cout<<"How Many Product Want To Store :"; cin>>n; 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<<"\nSorted On Cost"; display(); break; case 5: dlt(); break; case 6: exit(0); }

}while(ch!=7); return 0; } void insert() {

for(int i=0;i<n;i++)

{

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;

} 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"; cout<<"\nItem Name:"<<p->name; cout<<"\nItem Quantity:"<<p->quantity; cout<<"\nItem Cost:"<<p->cost; cout<<"\nItem Code:"<<p->code;

} } 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:**







