INPUT

```
#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) {
        if(code==i1.code) { return 1;
                }
                else { return 0;
                }
        }
        bool operator<(const item& i1)
                { if(cost<i1.cost) { return
                1;
                }
                else { 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;
        do {
                cout<<"\n\n***menu***'";
                cout<<"\n 1. insert";
                cout<<"\n 2. display";
                cout<<"\n 3. search";
                cout<<"\n 4. sort"; cout<<"\n
                5. delete"; cout<<"\n 6. exit";
                cout<<"\n enter 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 sorted on
                        cost"; display(); break;
                case 5:
                        dlt();
                        break;
                case 6:
                        exit(0);
                }
        } while(ch != 7);
        return 0;
}
void insert() { item i1; cout<<"\n enter
        item name "; cin>>i1.name;
        cout<<"\n enter item quantity ";
        cin>>i1.quantity; cout<<"\n enter
        item cost "; cin>>i1.cost; cout<<"\n
        enter 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<<"\n item name : "<<i1.name;
        cout<<"\n item quantity :
        "<<i1.quantity; cout<<"\n item cost
        : "<<i1.cost;
    cout<<"\n item code : "<<i1.code;
}
void search() { vector<item> :: iterator p;
        item i1; cout<<"\n enter code to
```

```
        search item"; cin>>i1.code;
        p=find(o1.begin(),o1.end(),i1);
        if(p==o1.end()) { cout<<"\n not
        found";
        }
        else { cout<<"\n found"; cout<<"\n item name "<<p-
                >name<<endl; cout<<"\n item quantity "<<p-
                >quantity<<endl; cout<<"\n item cost "<<p-
                >cost<<endl;
                cout<<"\n item code "<<p->code<<endl;
        }
}
void dlt() { vector<item> :: iterator p;
        item i1; cout<<"enter item code to
        delete"; cin>>i1.code;
        p=find(o1.begin(),o1.end(),i1);
        if(p==o1.end()) { cout<<"\n not
        found";
        }
        else { o1.erase(p);
                cout<<"\n deleted";
        }
}
```

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 2

enter item cost 560
enter item code 987

***menu***'
1. insert
2. display
3. search
4. sort
```

5. delete
6. exit

enter your choice :
1

enter item name painting

enter item quantity 3

enter item cost 1900
enter item code 654

menu'
1. insert
2. display
3. search
4. sort
5. delete
6. exit enter
your choice : 2

item name : book
item quantity : 2
item cost : 560
item code : 987

item name :
painting item
quantity : 3 item
cost : 1900 item
code : 654
menu'
1. insert
2. display
3. search
4. sort
5. delete 6.

exit enter your

choice : 3 enter

code to search

item654 found

item name painting
item quantity 3 item
cost 1900 item
code 654

menu'
1. insert
2. display

3. search
4. sort
5. delete 6.

exit enter your

choice : 4

sorted on cost

item name : book

item quantity : 2

item cost : 560
item code : 987

item name :
painting item
quantity : 3 item
cost : 1900 item
code : 654

menu'
1. insert
2. display
3. search
4. sort
5. delete 6.

exit enter your

choice : 5 enter

item code to

delete654 deleted

menu'
1. insert
2. display
3. search
4. sort
5. delete 6.

exit enter your
choice : 6