```
#include<iostream>
#include<algorithm>
#include<vector>
using namespace std;
class Item{
    public:
        char name[10];
        int quantity;
        int cost;
        int code;
        int operator==(const Item &i1)
        {
            if (code == i1.code){
                return 1;
            }
            return 0;
        }
        int 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;
    do{
        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<<"\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<<"Sorted on cost";
            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 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 Item code to search";
    cin>>i1.code;
    p=find(o1.begin(),o1.end(),i1);
    if(p==o1.end())
    {
        cout<<"\nNot Found";

    }
    else{
        cout<<"\n Found";
    }
}
void dlt(){
    vector<Item>::iterator p;
    Item i1;
    cout<<"\n 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.";
    }
}
```