

/*Write C++ program using STL for sorting and searching user defined records such as personal records (Name, DOB, Telephone number etc) using vector container.*/

```
#include <iostream>
#include <algorithm>
using namespace std;
```

```
class person
```

```
{
```

```
    public:
```

```
    string name;
```

```
    string dob;
```

```
    long tel;
```

```
    void getdata()
```

```
    {
```

```
        cout<<"ENTER NAME: "<<endl;
```

```
        cin>>name;
```

```
        cout<<"ENTER BIRTHDATE: "<<endl;
```

```
        cin>>dob;
```

```
        cout<<"ENTER PHONE NUMBER: "<<endl;
```

```
        cin>>tel;
```

```
    }
```

```
    void displaydata()
```

```
    {
```

```
        cout<<"\nNAME :-"<<name<<endl;
```

```
        cout<<"DATE OF BIRTH:-"<<dob<<endl;
```

```
        cout<<"TELEPHONE :-"<<tel<<endl;
```

```
    }
```

```
};
```

```
bool compare(const person & a, const person & b)
```

```
{
```

```
    return a.name < b.name;
```

```
}
```

```
int main()
```

```
{
```

```
    int n,c;
```

```
    cout<<"ENTER TOTAL NUMBER OF RECORDS :-";
```

```
    cin>>n;
```

```
    string z[n];
```

```
    person p[n];
```

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

```

{
    p[i].getdata();
}

cout<<"*****SORTED RECORD*****"<<endl;
sort(p, p+n, compare);
for(int i=0;i<n;i++)
{
    p[i].displaydata();
}
cout<<endl;

string nm;
cout<<"ENTER NAME TO BE SEARCH: ";
cin>>nm;
for(int i=0;i<n;i++)
{
    z[i]=p[i].name;
}

if(binary_search(z, z+n, nm))
{
    cout<<"*****RECORD FOUND*****";
}
else cout<<"*****RECORD NOT FOUND*****";
}

```