#include<iostream>

#include<algorithm>

#include<vector>

using namespace std;

class student

{

public:

int rno;

char name[10];

};

vector <student> v;

vector <student>::iterator i;

bool compare(const student &ob1,const student &ob2)

{

if(ob1.rno>ob2.rno)

return true;

return false;

}

void insert()

{

int x;

cout<<"\n Enter how many elements you want to enter=";

cin>>x;

for(int i=1;i<=x;i++)

{

student ob;

cout<<"\n Enter roll number and name =";

cin>>ob.rno>>ob.name;

v.push\_back(ob);

}

}

void display()

{

cout<<"\n \*\*\*student Details are\*\*\*";

for(i=v.begin();i!=v.end();i++)

cout<<"\n "<<(\*i).rno<<(\*i).name;

}

void search()

{

int r;

int flag=0;

cout<<"\n Enterd roll number to search=";

cin>>r;

for(i=v.begin();i!=v.end();i++)

{

if(r==(\*i).rno)

{

flag=1;

break;

}

}

if(flag==1)

cout<<"\n Element found with details like ="<<"\n\t\tRoll Number="<<(\*i).rno<<"\n\t\tName="<<(\*i).name;

else

cout<<"\n Enterd record not found";

}

int main()

{

student o;

vector <student> v;

vector <student>::iterator i;

while(1)

{

int g;

cout<<"\n\t \*\*\*MENU\*\*\* \n1.Insert Enteries \n2.Display Inserted Elements \n3.Search for a element \n4.Sort & display Sorted Enteries \nEnter your choice=";

cin>>g;

switch(g)

{

case 1:

insert();

break;

case 2:

display();

break;

case 3:

search();

break;

case 4:

sort(v.begin(),v.end(),compare);

break;

case 5:

break;

default:

cout<<"Invalid Choice";

}

}

return 0;

}

Output

\*\*\*MENU\*\*\*

1.Insert Enteries

2.Display Inserted Elements

3.Search for a element

4.Sort & display Sorted Enteries

Enter your choice=2

\*\*\*student Details are\*\*\*

\*\*\*MENU\*\*\*

1.Insert Enteries

2.Display Inserted Elements

3.Search for a element

4.Sort & display Sorted Enteries

Enter your choice=1

Enter how many elements you want to enter=3

Enter roll number and name =11 yash

Enter roll number and name =12

abhi

Enter roll number and name =13 raj

\*\*\*MENU\*\*\*

1.Insert Enteries

2.Display Inserted Elements

3.Search for a element

4.Sort & display Sorted Enteries

Enter your choice=1

Enter how many elements you want to enter=1

Enter roll number and name =15 harsh