#include <iostream>

#include<list>

using namespace std;

class record

{

list<string>name,dob,phone,ni;

list<string>::iterator it1,it2,it3,j,k,l,c,n;

list<string>code;

list<int>number;

list<float>cost;

list<int>::iterator no,j1;

list<float>::iterator f,i;

public:

void getp();

void display();

void searchp(string);

void sortp(); void checkempty();

void getlist();

void displayit();

void searchlist();

void sortitem();

};

void record::getp()

{

int count;

string n,d,p;

cout<<"Enter the number of members in record:"<<endl;

cin>>count;

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

{

cout<<"Enter name:"<<endl;

cin>>n;

name.push\_back(n);

cout<<"Enter date of birth:"<<endl;

cin>>d;

dob.push\_back(d);

cout<<"Enter phone number:"<<endl;

cin>>p;

phone.push\_back(p);

}}

void record::searchp(string data)

{

int flag=0;

it1=name.begin();

it2=dob.begin();

it3=phone.begin();

while(it1!=name.end()&&it2!=dob.end()&&it3!=phone.end())

{

if(\*it1==data)

{

cout<<"Record found!"<<endl;

cout<<"Corresponding D.O.B: "<<\*it2<<endl;

cout<<"Corresponding phone number: "<<\*it3<<endl;

flag=1;

break;

}

if(\*it2==data)

{

cout<<"Record found!"<<endl;

cout<<"Corresponding name "<<\*it1<<endl;

cout<<"Corresponding phone number: "<<\*it3<<endl;

flag=1;

break;

} if(\*it3==data)

{

cout<<"Record found!"<<endl;

cout<<"Corresponding name: "<<\*it1<<endl;

cout<<"Corresponding D.O.B: "<<\*it2<<endl;

flag=1;

break;

}

it1++;

it2++;

it3++;

}

if(flag==0)

cout<<"Record not found."<<endl;

}

void record:: display()

{

it1=name.begin();

it2=dob.begin();

it3=phone.begin();

while(it1!=name.end())

{

cout<<\*it1<<"\t"<<\*it2<<"\t"<<\*it3<<endl;

it1++;

it2++; it3++;

}

}

void record::sortp()

{

string temp;

it1=name.begin();

it2=dob.begin();

it3=phone.begin();

j=it1;

k=it2;

l=it3;

j++;

k++;

l++;

while(it1!=name.end())

{

while(j!=name.end())

{

if(\*it1>\*j)

{

temp=\*it1;

\*it1=\*j;

\*j=temp;

temp=\*it2; \*it2=\*k;

\*k=temp;

temp=\*it3;

\*it3=\*l;

\*l=temp;

}

j++;

k++;

l++;

}

it1++;

it2++;

it3++;

}

}

void record::getlist()

{

cout<<"Enter the number of items:"<<endl;

int c,no;

string n;

float f;

cin>>c;

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

{

cout<<"Enter item name:"<<endl; cin>>n;

ni.push\_back(n);

cout<<"Enter item code:"<<endl;

cin>>n;

code.push\_back(n);

cout<<"Enter cost:"<<endl;

cin>>f;

cost.push\_back(f);

cout<<"Enter the quantity:"<<endl;

cin>>no;

number.push\_back(no);

}

}

void record::displayit()

{

c=code.begin();

n=ni.begin();

no=number.begin();

f=cost.begin();

while(c!=code.end())

{

cout<<\*c<<"\t"<<\*n<<"\t"<<\*no<<"\t"<<\*f<<endl;

c++;

n++;

no++; f++;

}

}

void record::sortitem()

{

string temp;

int tempno;

float tempf;

c=code.begin();

n=ni.begin();

no=number.begin();

f=cost.begin();

i=f;

j1=no;

k=c;

l=n;

i++;

j1++;

k++;

l++;

while(f!=cost.end())

{

while(i!=cost.end())

{

if(\*f>\*i) {

tempf=\*f;

\*f=\*i;

\*i=tempf;

temp=\*n;

\*n=\*l;

\*l=temp;

temp=\*c;

\*c=\*k;

\*k=temp;

tempno=\*no;

\*no=\*j1;

\*j1=tempno;

}

i++;

j1++;

k++;

l++;

}

f++;

n++;

no++; c++;

}

}

void record::searchlist()

{

string key;

cout<<"Enter the item code:"<<endl;

cin>>key;

c=code.begin();

n=ni.begin();

no=number.begin();

f=cost.begin();

while(c!=code.end())

{

if(key==\*c)

{

cout<<"Item available!"<<endl;

cout<<"Item name: "<<\*n<<endl;

cout<<"Item quantity: "<<\*no<<endl;

cout<<"Item cost: "<<\*f<<endl;

}

c++;

n++;

no++;

f++; }

}

int main()

{

record obj;

string key;

int ch,chr;

char x='y';

do

{

cout<<"1. Personal record\n2. Item record\nEnter choice:\n";

cin>>ch;

do

{

if(ch==1)

{

cout<<"1. Enter details\n2. Display\n3. Search entry\n4. Sort records\nEnter choice\n";

cin>>chr;

switch(chr)

{

case 1:

obj.getp();

obj.display();

break;

case 2: obj.display();

break;

case 3:

cout<<"Enter either name, d.o.b or phone number you want to find\n";

cin>>key;

obj.searchp(key);

break;

case 4:

obj.sortp();

obj.display();

break;

default:

cout<<"Wrong choice"<<endl;

}

}

else if(ch==2)

{

cout<<"1. Enter details\n2. Display\n3. Search entry\n4. Sort records\nEnter choice\n";

cin>>chr;

switch(chr)

{

case 1:

obj.getlist();

obj.displayit();

break; case 2:

obj.displayit();

break;

case 3:

obj.searchlist();

break;

case 4:

obj.sortitem();

obj.displayit();

break;

default:

cout<<"Wrong choice"<<endl;

}

}

else

{

cout<<"Wrong choice"<<endl;

break;

}

cout<<"Do you wish to continue? Y or N\n";

cin>>x;

}while(x=='y'||x=='Y');

cout<<"Do you wish to select another type of record? Y or N\n";

cin>>x;

}while(x=='y'||x=='Y'); return 0;

}

OUTPUT

1. Personal record

2. Item record

Enter choice:

1

1. Enter details

2. Display

3. Search entry

4. Sort records

Enter choice

1

Enter the number of members in record:

2

Enter name:

abc

Enter date of birth:

5/6/1993

Enter phone number:

22556

Enter name:

pqr

Enter date of birth:

9/7/1993

Enter phone number:

22076

abc 5/6/1993 22556

pqr 9/7/1993 22076

Do you wish to continue? Y or N

y

1. Enter details

2. Display

3. Search entry

4. Sort recordsEnter choice

2

abc 5/6/1993 22556

pqr 9/7/1993 22076

Do you wish to continue? Y or N

y

1. Enter details

2. Display

3. Search entry

4. Sort records

Enter choice

3

Enter either name, d.o.b or phone number you want to find

abc

Record found!

Corresponding D.O.B: 5/6/1993

Corresponding phone number: 22556

Do you wish to continue? Y or N

y

1. Enter details

2. Display

3. Search entry

4. Sort records

Enter choice

4

abc 5/6/1993 22556

pqr 9/7/1993 22076

Do you wish to continue? Y or N

n

Do you wish to select another type of record? Y or N

n