#include<iostream>

using namespace std;

//3 into 1 bubble sort , selection sort and search in bubble sort

int a[100],n;

void main()

{

main:

system("cls");

int temp;

char c;

int location=-1;

int k;

cout<<"\nFor bubble sorting press b";

cout<<"\nFor selection sorting press s";

cout<<"\nEnter your choice";

cin>>c;

switch(c)

{

case 'b':

cout<<"\t\t\awelcome in bubble assending sorting life";

cout<<"\t\t\n\n...-2,-1,0,1,2,3,4...assending"

<<"\t\t\n\n---->4,3,2,1,0,-1,-2,3...desending"<<endl;

cout<<"\n\n\t\tHow many element do you want sorting out of 100 ?\t= ";

cin>>n;

cout<<"\n\nEnter #" <<n<< "the elements for bubble\n";

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

{

cin>>a[i];

}

for(int j=0;j<n;j++)

{

for(int k=0;k<n-1;k++)

{

if(a[k]>a[k+1]) //assending code

{

temp=a[k];

a[k]=a[k+1];

a[k+1]=temp;

}

}

}

cout<<"\n\n\n\n";

for(int i=0;i<n;i++) //display loop

{

cout<<a[i]<<endl;

}

cout<<"\n\n\n\n";

cout<<"for search";//search in bubble sort

cin>>k;

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

{

if(a[i]==k)

{

location=i;

} //index 2 find in dryrun //enter the vaules are>> a[i]

//20>>a[0]

//25>>a[1]

//50>>a[2]

//40>>a[3]

//30>>a[4]

//now find the location of 50

//a[i]==n

} //a[0]=20==50 x

if(location==-1) //a[1]=25==50 x

{cout<<"location not found";} //a[2]=50==50 ok index is a[2]

//a[3]=40==50 x

else //a[4]=30==50 x

{cout<<"Index found at "<<location<<endl;}

break;

//////////////////////////////////////////////

case 's':

int min;

int temp;

int pos=0;

cout<<"\n\n for selection sort\n";

cout<<"\n\n\t\tHow many element do you want sorting out of 100 ?\t= ";

cin>>n;

cout<<"\n\nEnter #" <<n<< "the elements for bubble\n";

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

{

cin>>a[i];

}

for(int j=0;j<n;j++)

{

min=a[j];

pos=j;

for(int k=j+1;k<n;k++)

{

if(a[k]<min)

{

min=a[k];

pos=k;

}

}

temp=a[j];

a[j]=a[pos];

a[pos]=temp;

}

cout<<"\nSelection sorting arrayr is\n"; //dispaly

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

{

cout<<a[i]<<endl;

}

break;

} //switch end

cout<<"\n\nMORE CALCULATION(y/n)";

cin>>c;

if(c=='y')

{

goto main;

}

else

{

exit(0);

}

system("pause");

}