/\*linear & binary search by switch\_case\*/

#include<stdio.h>

int main()

{

int ch;

int n,m,i,found,location,key,j,k,temp,first,last,mid;

printf("enter the value of n\n");

scanf("%d",&n);

int a[n];

printf("enter the values of array\n");

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

{

scanf("%d",&a[i]);

}

printf("enter the value of m\n");

scanf("%d",&m);

int b[m];

printf("enter the values of array\n");

for(j=0;j<m;j++)

{

scanf("%d",&b[j]);

}

printf("enter your choice\n");

printf("1.linear search\n2.binary search\n");

scanf("%d",&ch);

switch(ch)

{

case 1:

printf("enter your key(search)element\n");

scanf("%d",&key);

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

{

if(a[i]==key)

{

found=1;

location=i;

break;

}

else

{

found=0;

}

}

if(found==0)

{

printf("SEARCH UNSUCCESSFUL:element not found\n");

}

else

{

printf("SEARCH SUCCESSFUL:%d is present at place %d",key,(location+1));

}

case 2:

for(j=0;j<m;j++)

{

for(k=j+1;k<m;k++)

{

if(b[j]>b[k])

{

temp=b[j];

b[j]=b[k];

b[k]=temp;

}

}

}

printf("sorted array\n");

for(j=0;j<m;j++)

{

printf("%d\n",b[j]);

}

first=0;

last=n-1;

printf("enter the value of key\n");

scanf("%d",&key);

mid=(first+last)/2;

while(first<=last)

{

if(b[mid]<key)

{

first=mid+1;

}

else if(b[mid]==key)

{

printf("%d is found at %d",key,mid+1);

break;

}

else

{

last=mid-1;

mid=(first+last)/2;

}

mid=(first+last)/2;

}

if(first>last)

{

printf("value is not found");

}

break;

default:

{

printf("invalid choice\n");

}

}

return 0;

}

