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/*
Name of student : Amit Bandu Swami
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Assignment No. 07
Title : Sorting and Searching using STL
*/
//Program
#include<iostream>
#include<algorithm>
using namespace std;
int main()
{
int a[5];
char b[5];
float  c[5];
int i;
cout<<"enter integers in array"<<endl;
for(i=0;i<5;i++)
{
cin>>a[i];
}
sort(a,a+5);
cout<<"sorted array:"<<endl;
for(i=0;i<5;i++)
{
cout<<a[i]<<endl;
}
int found=binary_search(a,a+5,3);
if(found==1)
cout<<"Element found in list"<<endl;
else
cout<<"Element is not found in list"<<endl;
cout<<"enter characters in array"<<endl;
for(i=0;i<5;i++)
{
cin>>b[i];
}
sort(b,b+5);
cout<<"sorted array:"<<endl;
for(i=0;i<5;i++)
{
cout<<b[i]<<endl;
}
char find =binary_search(b,b+5,'a');
```

```cpp
if(find==1)
cout<<"Element found in list"<<endl;
else
cout<<"Element is not found in list"<<endl;
cout<<"enter float values in array"<<endl;
for(i=0;i<5;i++)
{
cin>>c[i];
}
sort(c,c+5);
cout<<"sorted array:"<<endl;
for(i=0;i<5;i++)
{
cout<<c[i]<<endl;
}
float show=binary_search(c,c+5,0.8);
if(show==1)
cout<<"Element found in list"<<endl;
else
cout<<"Element is not found in list"<<endl;
return 0;
}

/*
```

OUTPUT:
enter integers in array
6 5 8 9 3
sorted array:
3
5
6
8
9
Element found in list
enter characters in array
A W X e k
sorted array:
A
W
X
e
k
Element is not found in list
enter float values in array

0.3 6.78 9.99 5.6 3.4
sorted array:
0.3
3.4
5.6
6.78
9.99
Element is not found in list
*/