binarysearch\_07.cpp

**Compile:** g++ binarysearch\_07.cpp -o binarysearch\_07

**Run:** ./binarysearch\_07

**Program:**

#include<iostream>

using namespace std;

int flag=0;

class demo

{

public:

intarr[100];

int n, low, high, mid, key;

voidgetdata()

{

cin>>n;

cout<<"Enter "<<n<<" elements: "<<endl;

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

{

cin>>arr[i];

}

cout<<"Enter the key value: ";

cin>>key;

}

voidbsort()

{

cout<<"Array after sorting: ";

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

{

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

{

if(arr[j]>arr[j+1])

{

int temp;

temp=arr[j];

arr[j]=arr[j+1];

arr[j+1]=temp;

}

}

}

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

{

cout<<arr[k]<<" ";

}

cout<<endl;

}

voidsetdata()

{

low=0;

high=n-1;

mid=(low+high)/2;

//cout<<"Mid: "<<mid<<endl;

}

voidbinarysearch()

{

while(low<=high)

{

if(key==arr[mid])

{

cout<<"Key value found at location "<<mid<<endl;

flag=1;

break;

}

else if(key<arr[mid])

{

high=mid-1;

}

else if(key>arr[mid])

{

low=mid+1;

}

//cout<<"Low: "<<low<<endl;

//cout<<"High: "<<high<<endl;

mid=(low+high)/2;

//cout<<"Mid: "<<mid<<endl;

}

if(flag!=1)

{

cout<<"Key value not found..."<<endl;

}

}

};

int main()

{

demo d;

cout<<"Enter total no. of elements to be store in the array: ";

d.getdata();

d.bsort();

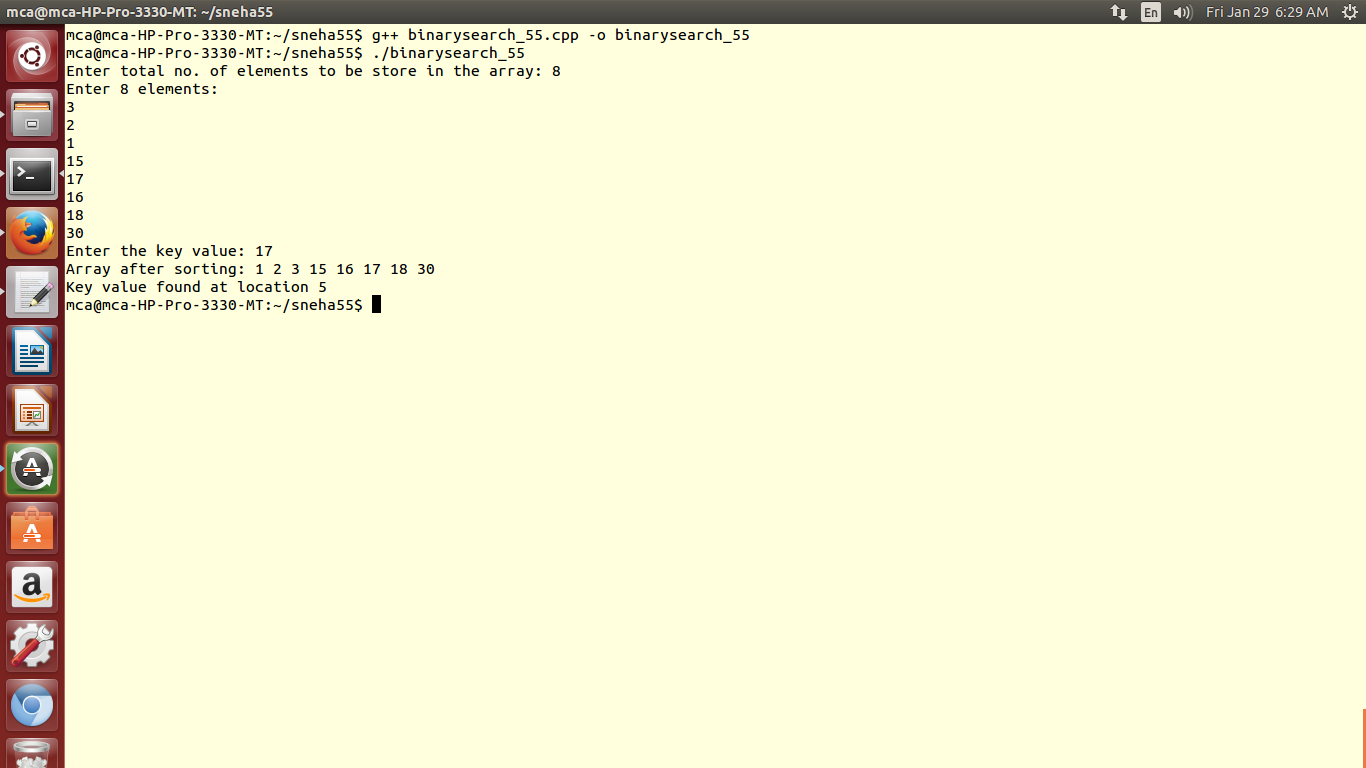
d.setdata();

d.binarysearch();

return 0;

}

**Output:**

****