**PROGRAM FOR QUICK SORT:**

#include<iostream>

#include<cstdlib>

using namespace std;

class quick

{

private:

int A[20],n;

public:

void getdata()

{

int i;

cout<<endl<<"Enter the size of quick array";

cin>>n;

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

{

cin>>A[i];

}

}

void display()

{

int i;

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

{

cout<<endl<<A[i];

}

}

void sort(int lower, int upper)

{

int i;

if(upper>lower)

{

i=split(A,lower,upper);

sort(lower,i-1);

sort(i+1,upper);

}

}

static int split(int \*A,int lower, int upper)

{

int pivot,p,q,temp;

p=lower+1;

q=upper;

pivot=A[lower];

while(q>=p)

{

while(A[p]<pivot)

{

p++;

}

while(A[q]>pivot)

{

q--;

}

if(q>p)

{

temp=A[p];

A[p]=A[q];

A[q]=temp;

}

}

temp=A[lower];

A[lower]=A[q];

A[q]=temp;

return q;

}

int getcount()

{

return n;

}

};

int main()

{

int count;

quick q;

q.getdata();

count=q.getcount();

q.sort(0,count-1);

cout<<"--------------------------";

cout<<endl<<"Quick Sorted Array is";

q.display();

return 0;

}

**OUTPUT:**

Enter the size of quick array

6

Enter the elements

54

51

95

84

56

21

--------------------------

Quick Sorted Array is

21

51

54

56

84

95