**Assignment No.14(Quick sort).**

#include <iostream>

using namespace std;

int partitions(float marks[],int start,int ends){

float pivot,temp;

int i,j;

pivot=marks[start];

i=start;

j=ends+1;

do{

do

i++;

while(marks[i]<pivot&&i<=ends);

do

j--;

while(pivot<marks[j]);

if(i<j){

temp=marks[i];

marks[i]=marks[j];

marks[j]=temp;}

}while(i<j);

marks[start]=marks[j];

marks[j]=pivot;

return j;

}

void quicksort(float marks[],int start,int ends){

int partIndex;

if(start<ends){

partIndex=partitions(marks,start,ends);

quicksort(marks,start,partIndex-1);

quicksort(marks,partIndex+1,ends);}

}

int main(){

float marks[20],cnt;

cout<<"Enter count of marks do you want to enter:";

cin>>cnt;

cout<<endl<<"Enter marks:";

for(int i=0;i<cnt;i++){

cin>>marks[i];}

quicksort(marks,0,cnt-1);

cout<<endl<<"Sorted array is:";

for(int i=0;i<cnt;i++){

cout<<marks[i]<<"\t"; }

}

**Output:**

Enter count of marks do you want to enter:6

Enter marks:34.67

78.90

89.13

90.78

92.54

32.5

Sorted array is:32.5 34.67 78.9 89.13 90.78 92.54