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#include<stdio.h>
#include<conio.h>
int partition(int a[],int low,int high)
{
    int i,j,temp,key;
    key=a[low],i=low+1,j=high;
    while(1)
    {
        while(i<high&&key>=a[i])
            i++;
        while(key<a[j])
            j--;
        if(i<j)
            temp=a[i],a[i]=a[j],a[j]=temp;
        else
        {
            temp=a[low],a[low]=a[j],a[j]=temp;
            return j;
        }
    }
}
void quicksort(int a[],int low,int high)
{
    int j;
    if(low<high)
    {
        j=partition(a,low,high);
        quicksort(a,low,j-1);
        quicksort(a,j+1,high);
    }
}
void main()
{
    int i,n,a[20];
    clrscr();
    printf("Enter the value for n\n");
    scanf("%d",&n);
    printf("Enter the number to be sorted\n");
    for(i=0;i<n;i++)
        scanf("%d",&a[i]);
    quicksort(a,0,n-1);
    printf("The sorted list is\n");
    for(i=0;i<n;i++)
        printf("%d\n",a[i]);
    getch();
}

```