18.Quick sort

#include<stdio.h>

void quicksort(int a[25],int first,int last)

{

int i, j, pivot, temp;

if(first<last){

pivot=first;

i=first;

j=last;

while(i<j){

while(a[i]<=a[pivot] && i<last)

i++;

while(a[j]>a[pivot])

j--;

if(i<j){

temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

temp=a[pivot];

a[pivot]=a[j];

a[j]=temp;

quicksort(a,first,j-1);

quicksort(a,j+1,last);

}

}

int main()

{

int i, n, a[25];

printf("Enter total no.of elements: ");

scanf("%d",&n);

printf("Enter the elements: ");

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

scanf("%d",&a[i]);

quicksort(a,0,n-1);

printf("Sorted Array: ");

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

printf(" %d",a[i]);

return 0;

}