Quick Sort

#include<stdio.h>

void quicksort(int [10],int,int);

int main(){

int x[20],size,i;

printf("Enter size of the array: ");

scanf("%d",&size);

printf("Enter %d elements: ",size);

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

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

quicksort(x,0,size-1);

printf("Sorted elements: ");

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

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

return 0;

}

void quicksort(int x[10],int first,int last){

int pivot,j,temp,i;

if(first<last){

pivot=first;

i=first;

j=last;

while(i<j){

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

i++;

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

j--;

if(i<j){

temp=x[i];

x[i]=x[j];

x[j]=temp;

}

}

temp=x[pivot];

x[pivot]=x[j];

x[j]=temp;

quicksort(x,first,j-1);

quicksort(x,j+1,last);

}

}

OUTPUT

Enter size of the array: 6

Enter 6 elements: 5 2 5 6 8 9

Sorted elements: 2 5 5 6 8 9

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Process exited after 17.66 seconds with return value 0

Press any key to continue . . .