***Quick Sort:***

#include <stdio.h>

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

int main()

{

int arr[20],size,i;

while(true)

{

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

scanf("%d",&size);

printf("\nEnter elements:\n");

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

{

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

}

quicksort(arr,0,size-1);

printf("\nSorted elements: " );

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

{

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

}

printf("\n\n");

}

return 0;

}

void quicksort( int arr[10], int first, int last)

{

int pivot,j,temp,i;

if (first<last)

{

pivot=first;

i=first;

j=last;

while (i<j)

{

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

i++;

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

j--;

if (i<j)

{

temp=arr[i];

arr[i]=arr[j];

arr[j]=temp;

}

}

temp=arr[pivot];

arr[pivot]=arr[j];

arr[j]=temp;

quicksort(arr,first,j-1);

quicksort(arr,j+1,last);

}

}