quicksort

```c
#include<stdio.h>
void quicksort(int a[],int lb,int up)
{
int j;
if(lb<up)
{
j=partition(a,lb,up);
quicksort(a,lb,j-1);
quicksort(a,j+1,up);
}
}
partition(int a[],int lb,int up)
{
int i,j,pivot,temp;
i=lb+1;
j=up;
pivot=a[lb];
do
{
while((a[i]<pivot)&&(i<=up))
i++;
while((a[j]>pivot)&&(j>lb))
j--;
if(i<j)
{
temp=a[i];
a[i]=a[j];
a[j]=temp;
}
}
while(i<j);
a[lb]=a[j];
a[j]=pivot;
return j;
}
void main()
{
int i,n,a[10];
printf("\nHow Many Values:");
scanf("%d",&n);
printf("\nEnter Actual Values:");
for(i=0;i<n;i++)
{
scanf("%d",&a[i]);
}
quicksort(a,0,n-1);
printf("\nThe Sorted Elements Are\n");
for(i=0;i<n;i++)
{
printf("%d\t",a[i]);
```

```
}
}
/* output->

How Many Values : 5
Enter Actual Values : 12
                54
                23
                98
                55
The Sorted Element Are

12  23  54  55  98
*/
```