

PROGRAM 18:

```
#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]);

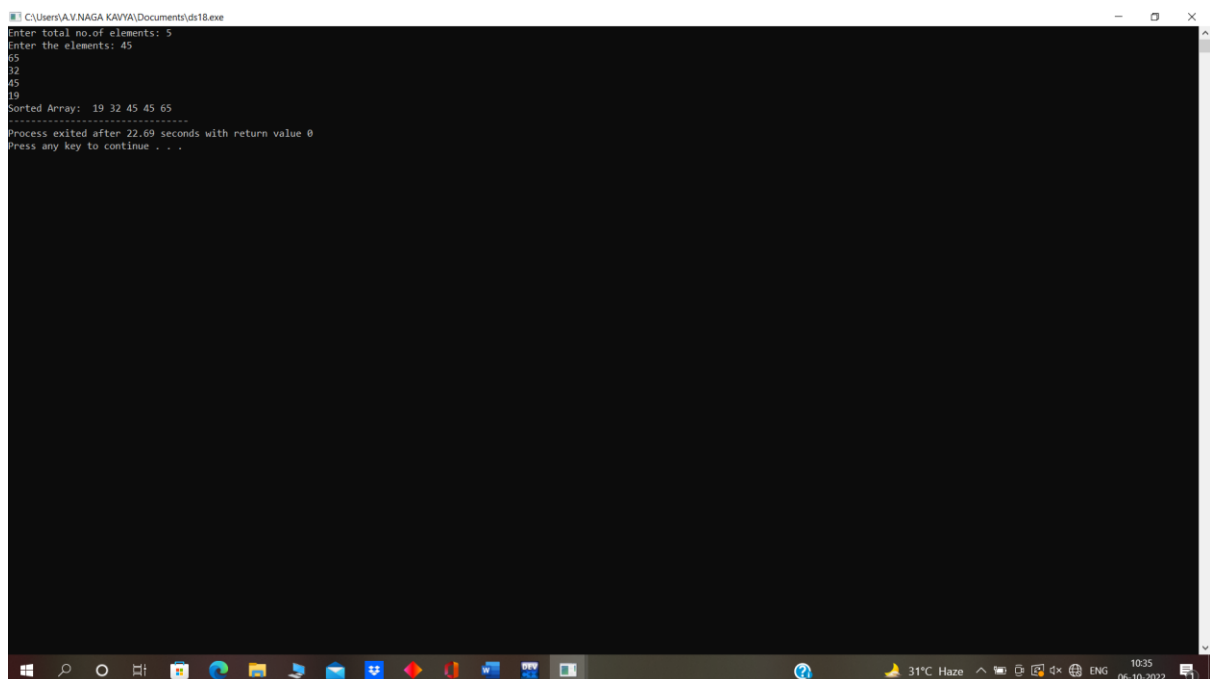
    quicksort(a,0,n-1);

    printf("Sorted Array: ");
    for(i=0;i<n;i++)
        printf(" %d",a[i]);

    return 0;
}

```

OUTPUT:



```

C:\Users\A.V.NAGA KAVYA\Documents\ds18.exe
Enter total no.of elements: 5
Enter the elements: 45
65
32
45
19
Sorted Array: 19 32 45 45 65
.....
Process exited after 22.69 seconds with return value 0
Press any key to continue . . .

```