

QUICK SORT

```
#include<stdio.h>
```

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

```
int main()
```

```
{
```

```
    int a[20],n,i;
```

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

```
    scanf("%d",&n);
```

```
    printf("Enter %d elements: ",n);
```

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

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

```
    quicksort(a,0,n-1);
```

```
    printf("Sorted elements: ");
```

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

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

```
    return 0;
```

```
}
```

```
void quicksort(int a[10],int first,int last)
```

```
{
    int pivot,j,t,i;

    if(first<last)
    {
        pivot=first;
        i=first;
        j=last;

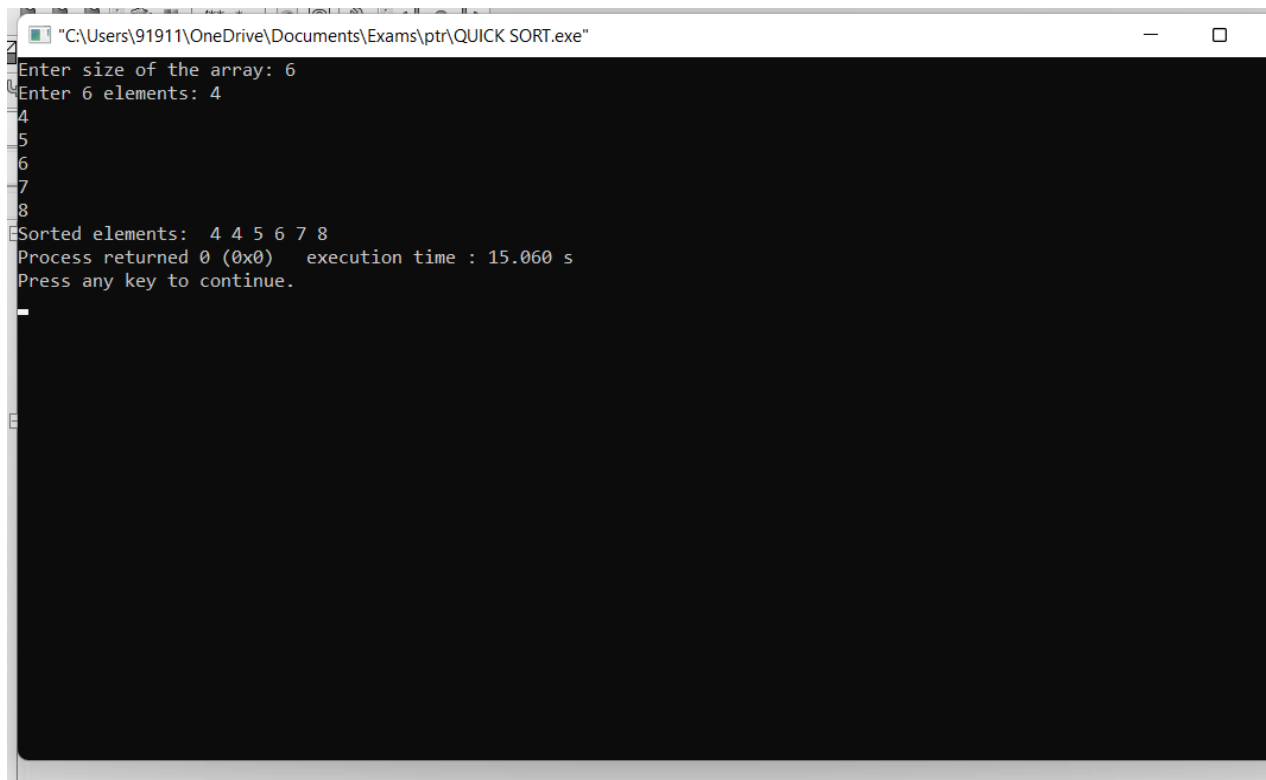
        while(i<j)
        {
            while(a[i] <= a[pivot])
                i++;

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

            if(i<j)
            {
                t=a[i];
                a[i]=a[j];
                a[j]=t;
            }
        }
    }
```

```
t=a[pivot];  
    a[pivot]=a[j];  
    a[j]=t;  
  
    quicksort(a,first,j-1);  
    quicksort(a,j+1,last);  
  
}  
  
}
```

OUTPUT:



```
"C:\Users\91911\OneDrive\Documents\Exams\ptr\QUICK SORT.exe"  
Enter size of the array: 6  
Enter 6 elements: 4  
4  
5  
6  
7  
8  
Sorted elements: 4 4 5 6 7 8  
Process returned 0 (0x0)   execution time : 15.060 s  
Press any key to continue.  
-
```