

```
int partition(int arr[], int low, int high)
{
    int pivot = arr[(low + high) / 2];
    swap(arr[low], arr[(low + high) / 2]);
    int smallIndex = low;
    int index;
    for (int i = low + 1; i <= high; ++i) {
        index = i;
        if (pivot > arr[index]) {
            ++smallIndex;
            swap(arr[smallIndex], arr[index]);
        }
    }
    swap(arr[low], arr[smallIndex]);
    return smallIndex;
}
```

```
void quickSort(int arr[], int low, int high)
{
    if (low < high) {
        int pivotLoc = partition(arr, low, high);
        quickSort(arr, low, pivotLoc - 1);
        quickSort(arr, pivotLoc + 1, high);
    }
}
```