



```

function segregation_sort(array, i_start, i_end)
  if i_start < i_end
    i_pivot = choose_pivot_index(array, i_start, i_end)
    i_up = i_start
    i_down = i_end

    while i_up < i_down
      while array[i_up] < array[i_pivot] and i_up < i_end
        i_up = i_up + 1

      while array[i_down] >= array[i_pivot] and i_down > i_start
        i_down = i_down - 1

      if i_up < i_down
        swap(array[i_up], array[i_down])

    swap(array[i_pivot], array[i_down])

    segregation_sort(array, i_start, i_down - 1)
    segregation_sort(array, i_down + 1, i_end)

function choose_pivot_index(array, i_start, i_end)
  return (i_start + i_end) / 2

```