

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