

2. Merge Algorithm for two sorted Arrays

Algorithm merge (arrA, arrB)

indexA \leftarrow 0

indexB \leftarrow 0

indexC \leftarrow 0

arrC \leftarrow int [arrA.size() + arrB.size()]

while indexA < arrA.size() and indexB < arrB.size() do

if arrA[indexA] < arrB[indexB] then

arrC[indexC] \leftarrow arrA[indexA]

indexA = indexA + 1

else

arrC[indexC] \leftarrow arrB[indexB]

indexB \leftarrow indexB + 1

indexC \leftarrow indexC + 1

if indexA < arrA.size() then

for i \leftarrow indexA to arrA.size() - 1 do

arrC[indexC] \leftarrow arrA[i]

indexC \leftarrow indexC + 1

{increment counter i}

else if indexB < arrB.size() then

for i \leftarrow indexB to arrB.size() - 1 do

arrC[indexC] \leftarrow arrB[i]

indexC = indexC + 1

{increment counter i}

return arrC