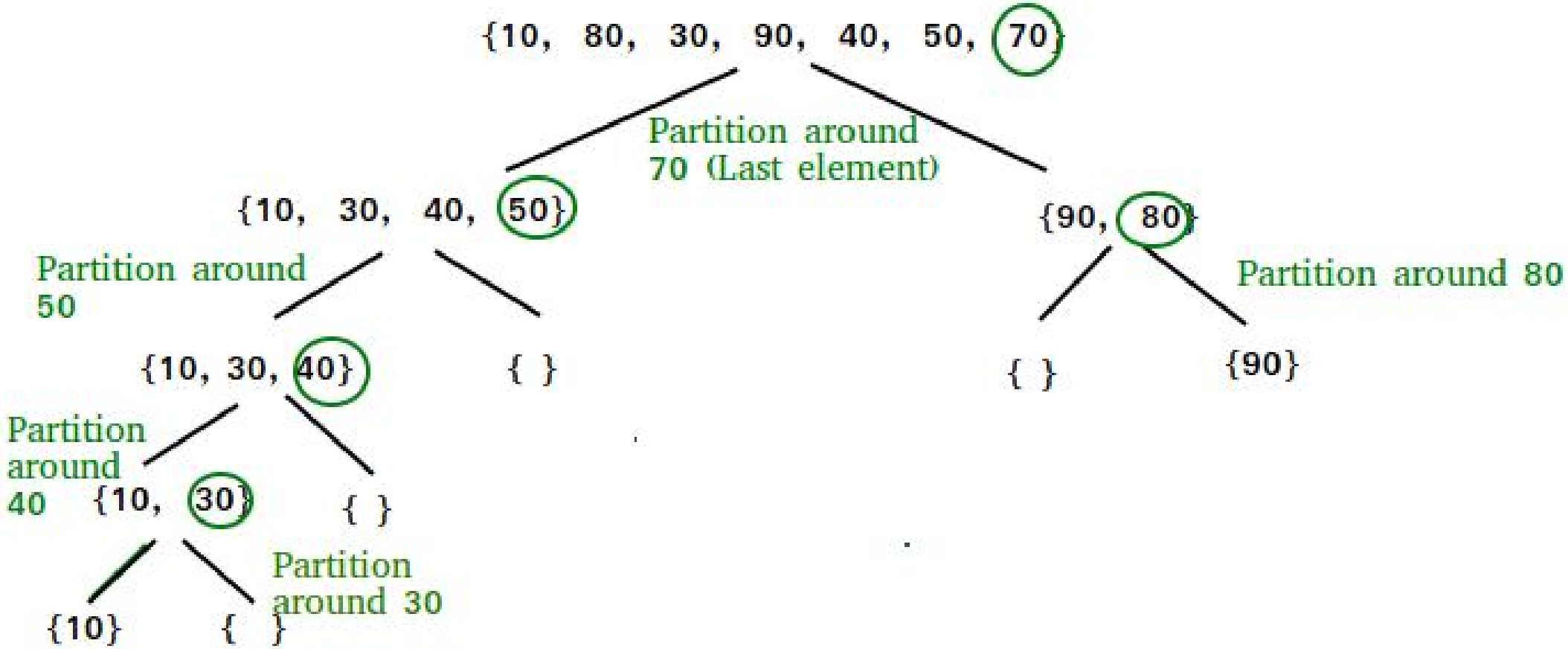

{10, 80, 30, 90, 40, 50, 70}
Partition around
70 (Last element)
{10, 30, 40, 50}
{90, 80}
Partition around
50
Partition around 80
{10, 30, 40}
{ }
{ }
{90}
Partition
around
40
{10, 30}
{ }
Partition
around 30
{10}
{ }

Partition

Counter variables

I: Index of smaller element

J: Loop variable

Pass 1

Test condition	Actions	Value of variables
arr[J] <= pivot 10 < 70 True	I++ Swap(arr[I],arr[J])	I = -1 J = 0

Partition

Counter variables

I: Index of smaller element

J: Loop variable

Pass 2

Test condition	Actions	Value of variables
arr[J] <= pivot 80 < 70 False	No action	I = 0 J = 1

Partition

Suggested: Sorting Algorithms

Counter variables

I: Index of smaller element

J: Loop variable

Pass 3

Test condition	Actions	Value of variables
arr[J] <= pivot 30 < 70 True	I++ Swap(arr[I],arr[J])	I = 1 J = 2

Partition

Counter variables

I: Index of smaller element

J: Loop variable

Pass 4

Test condition	Actions	Value of variables
arr[J] <= pivot 90 < 70 False	No action	I = 1 J = 3

Partition

Counter variables

I: Index of smaller element

J: Loop variable

Pass 5

Test condition	Actions	Value of variables
arr[J] <= pivot 40 < 70 True	I++ Swap(arr[I],arr[J])	I = 2 J = 4

Partition

Quiz on QuickSort

Counter variables

I: Index of smaller element

J: Loop variable

Pass 6

Test condition	Actions	Value of variables
arr[J] <= pivot 50 < 70 True	I++ Swap(arr[I],arr[J])	I = 3 J = 5

Partition

Counter variables

I: Index of smaller element

J: Loop variable

We know swap arr[i+1] and pivot

Partition

Now that 70 is brought to it's appropriate position by the partition funtion.

We can begin quick sorting the left part.

Quick sort left

Since quick sort is a recursion function,
we call the Partition function again

Quick sort left

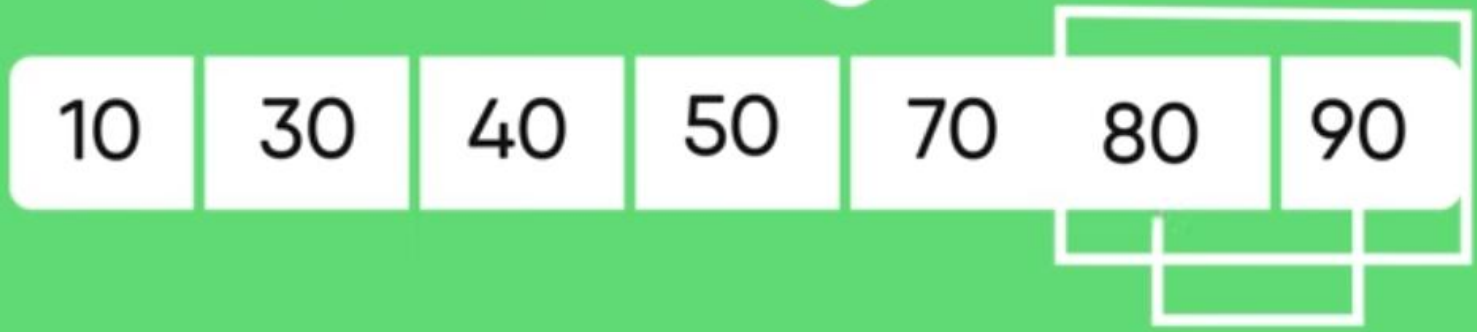
Since quick sort is a recursion function,
we call the Partition function again

First 50 is the pivot.

As it is already at its correct position
we call the quicksort function again on the left part.

Quick sort Right

Suggested: Merge Sort | GeeksforGeeks



80 is the Pivot.

80 and 90 are swapped to bring pivot to correct position.