

Algorithm

Merge Sort

Code Walkthrough

Part 1





Merge Sort

```
def merge_sort(lst):  
    if len(lst) == 0 or len(lst) == 1:  
        return lst  
    else:  
        middle_index = len(lst)//2  
  
        left = merge_sort(lst[:middle_index])  
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        return merge(left, right)
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Merge Sort



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merge_sort([5, 1, 4, 7, 3])
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`merge_sort([5, 1, 4, 7, 3])`

`[5, 1, 4, 7, 3]`



`merge_sort([5, 1])`

`[5, 1]`

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`merge_sort([5, 1, 4, 7, 3])`

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`merge_sort([5, 1])`

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merge_sort([5, 1, 4, 7, 3])

[5, 1, 4, 7, 3]



merge_sort([5, 1])

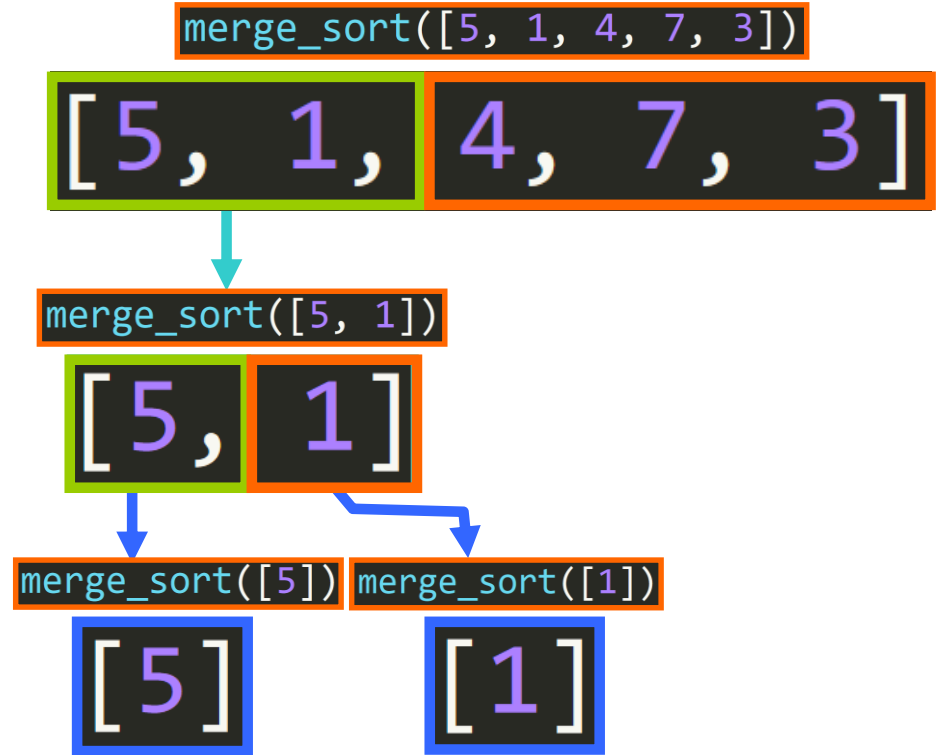
[5, 1]



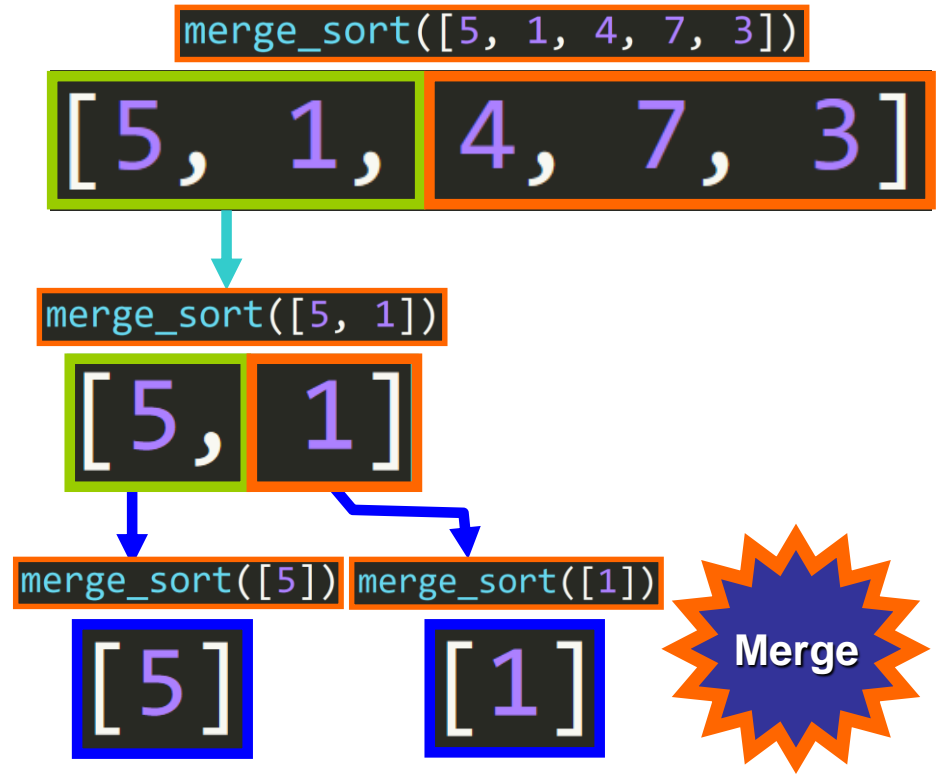
merge_sort([5])

[5]


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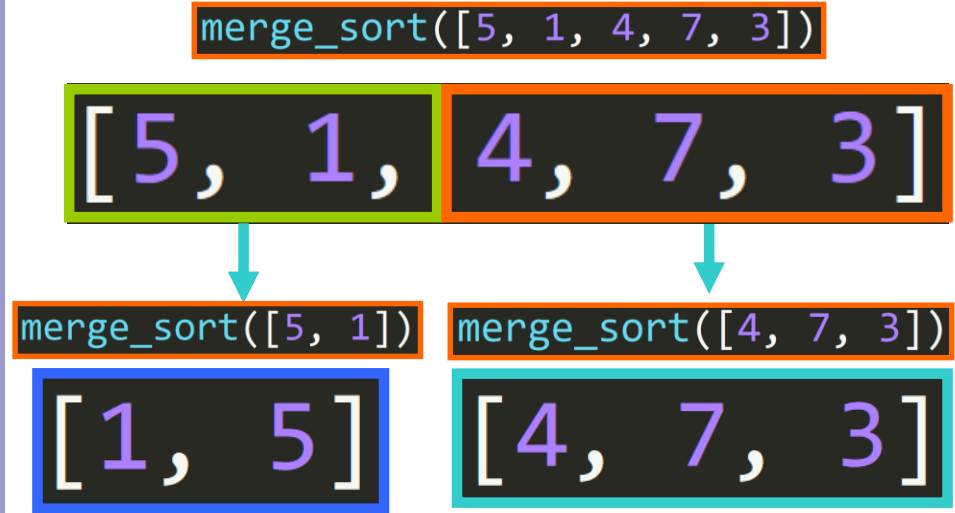
`[5, 1, 4, 7, 3]`



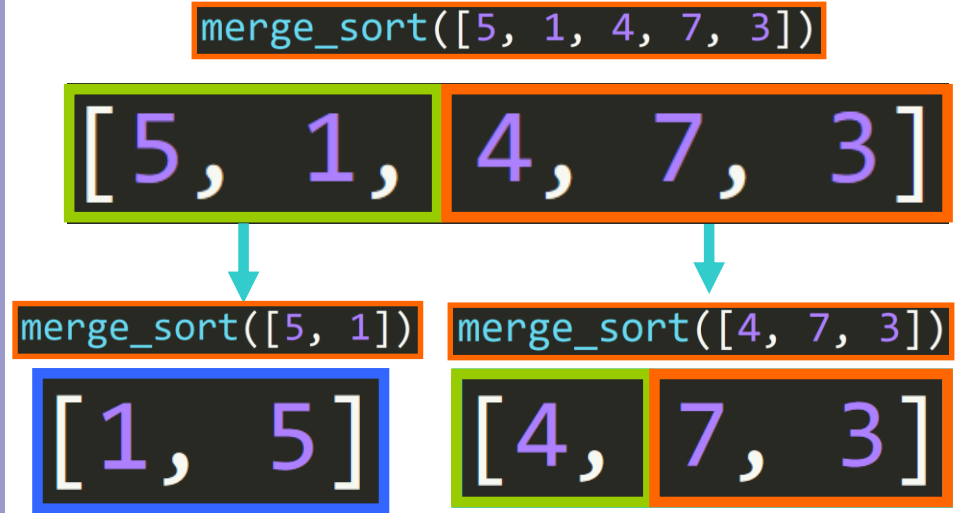
`merge_sort([5, 1])`

`[1, 5]`

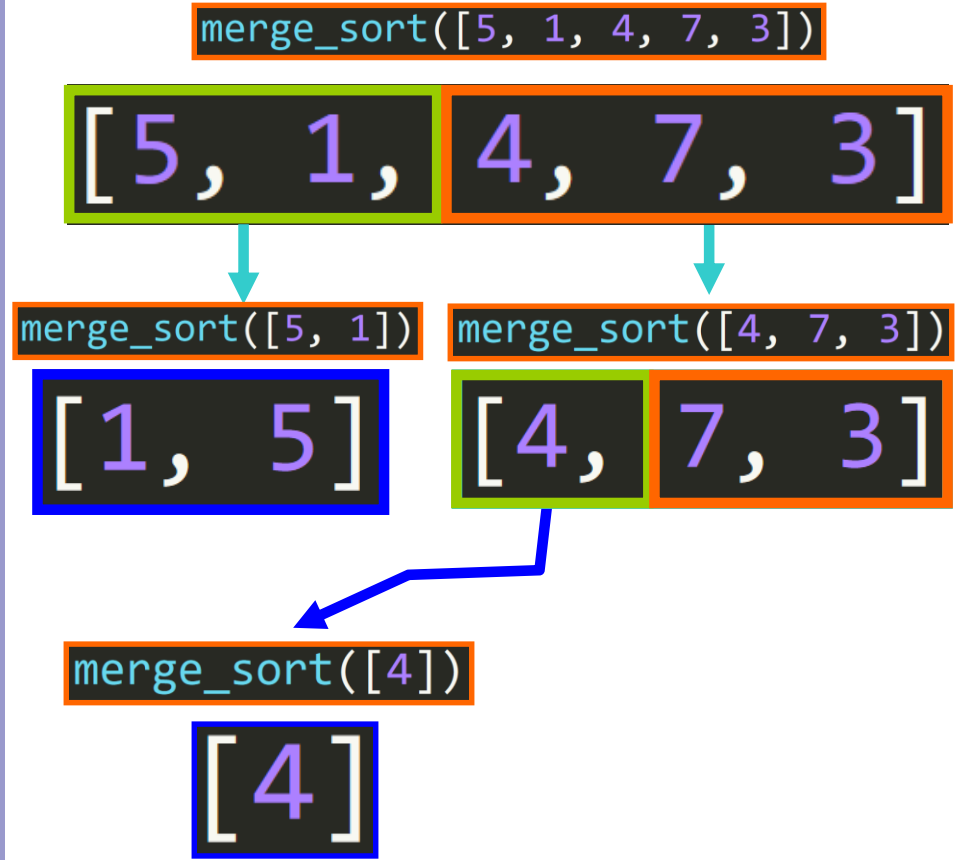
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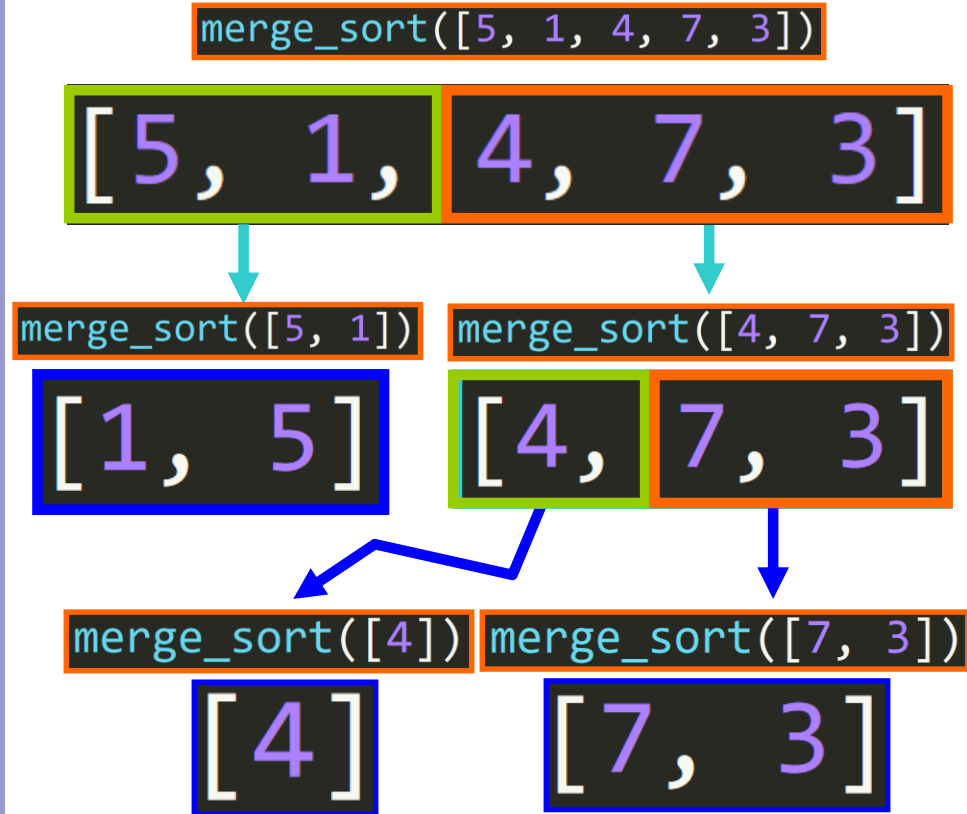
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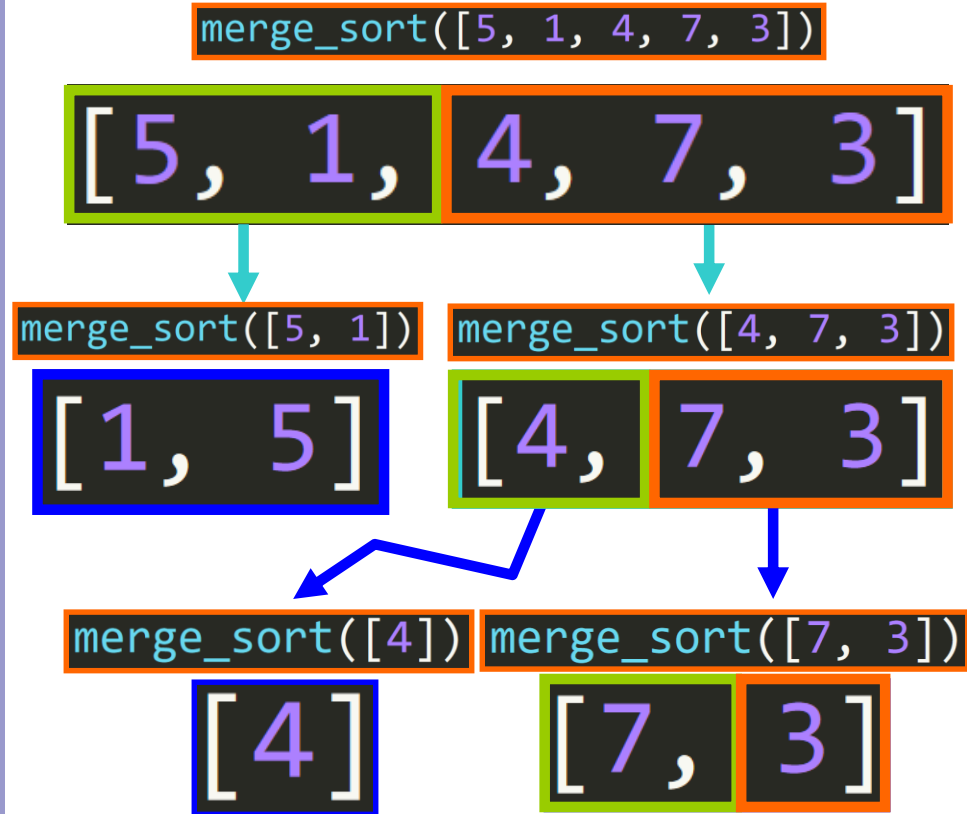
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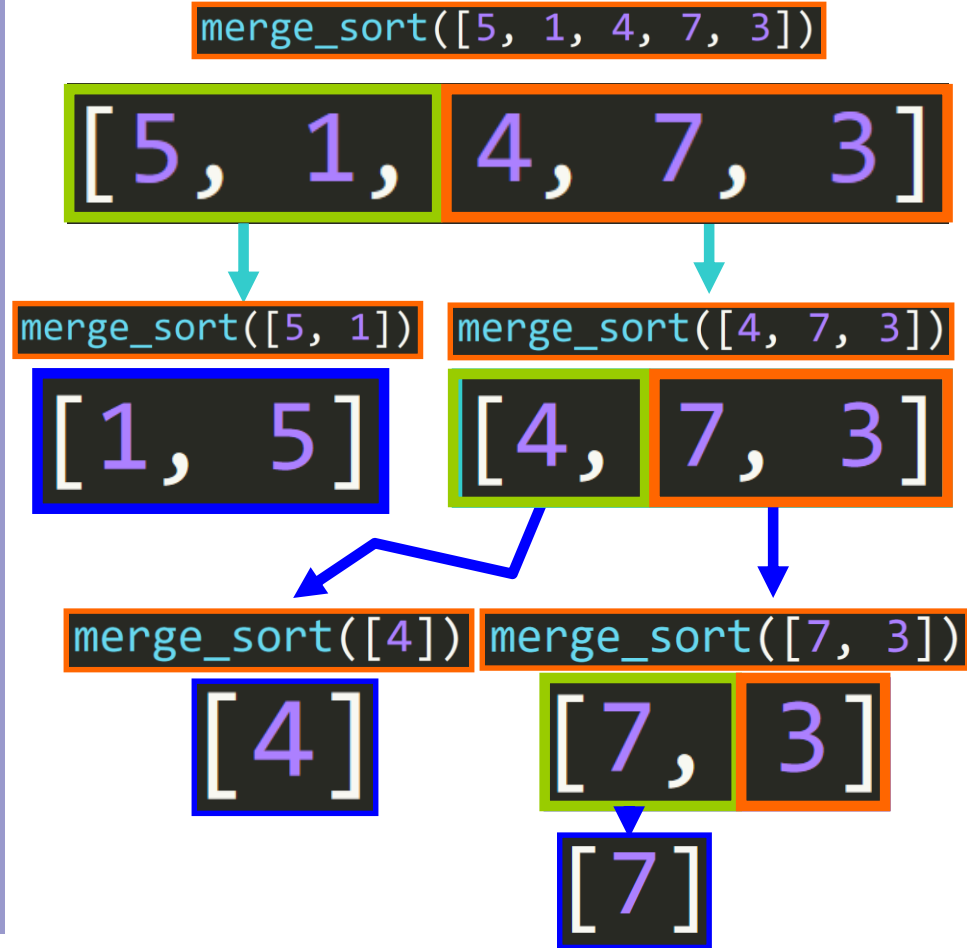
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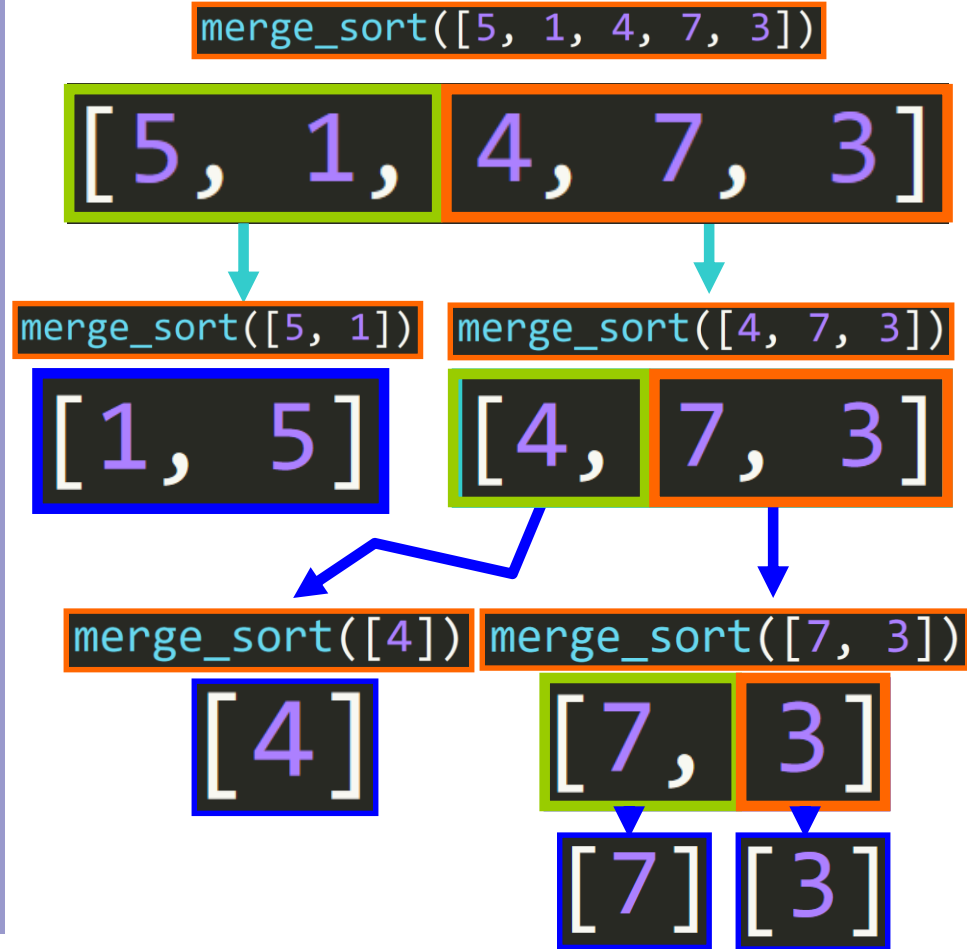
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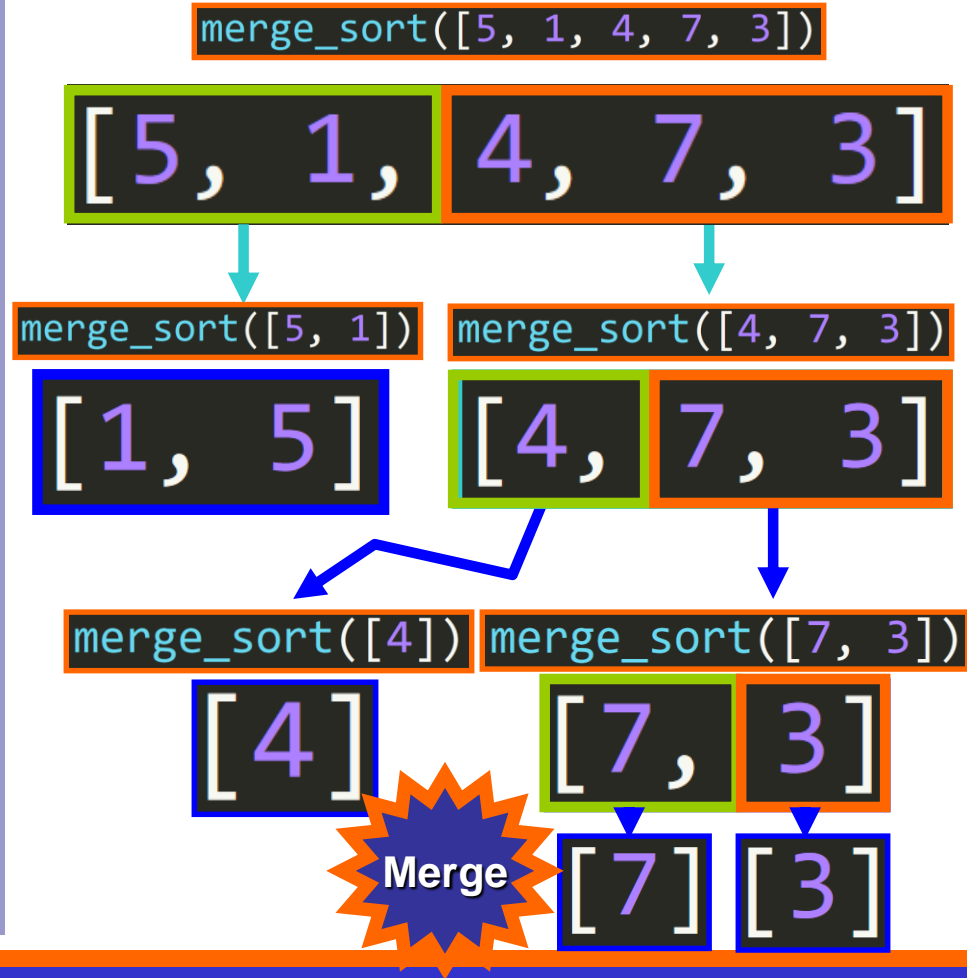

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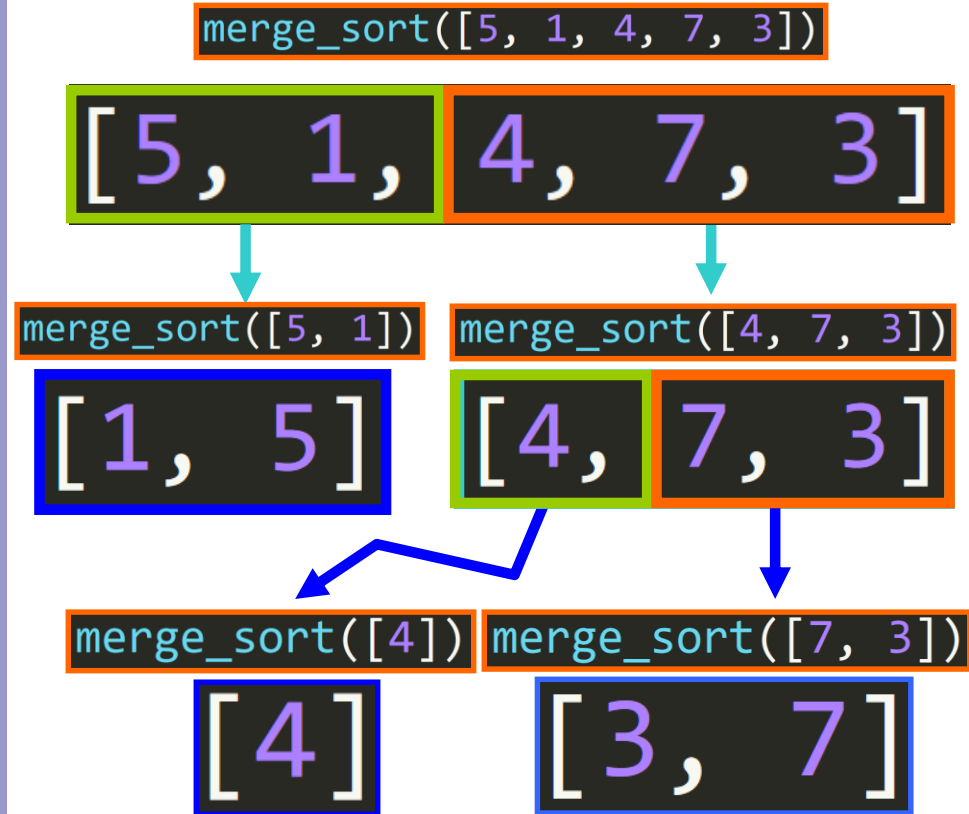
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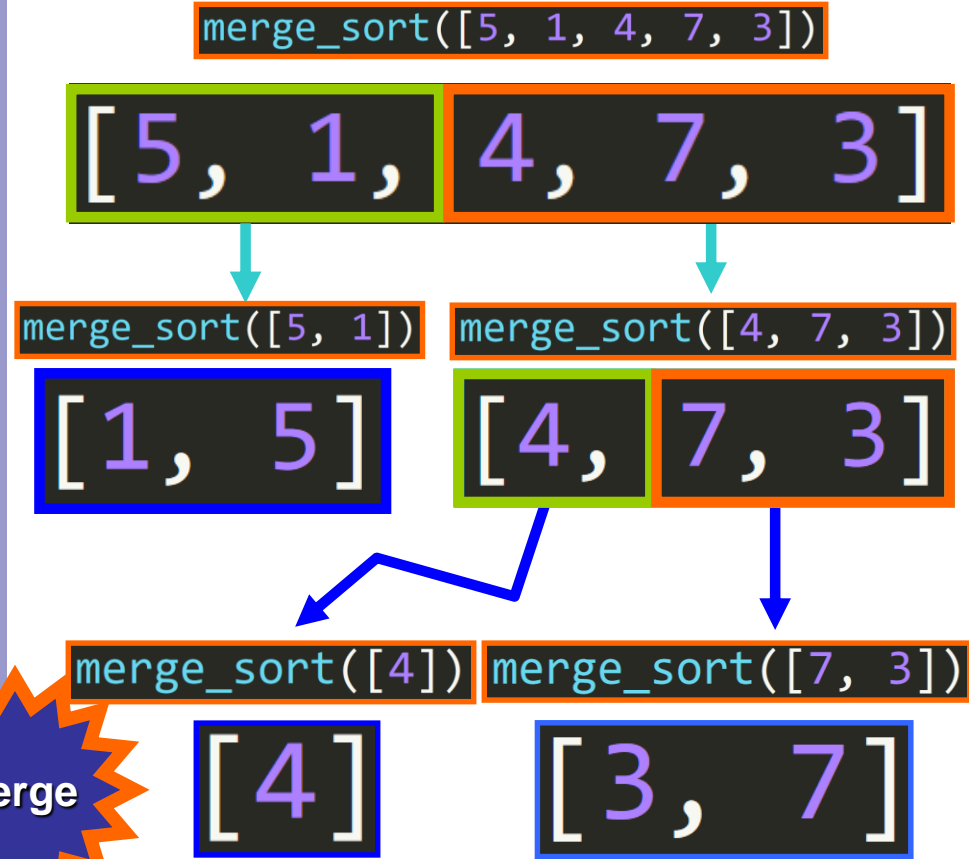


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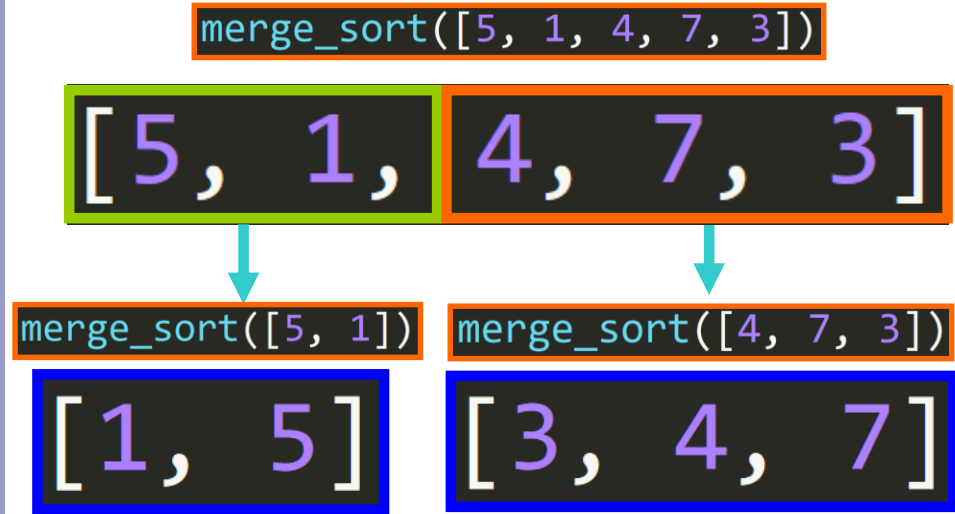


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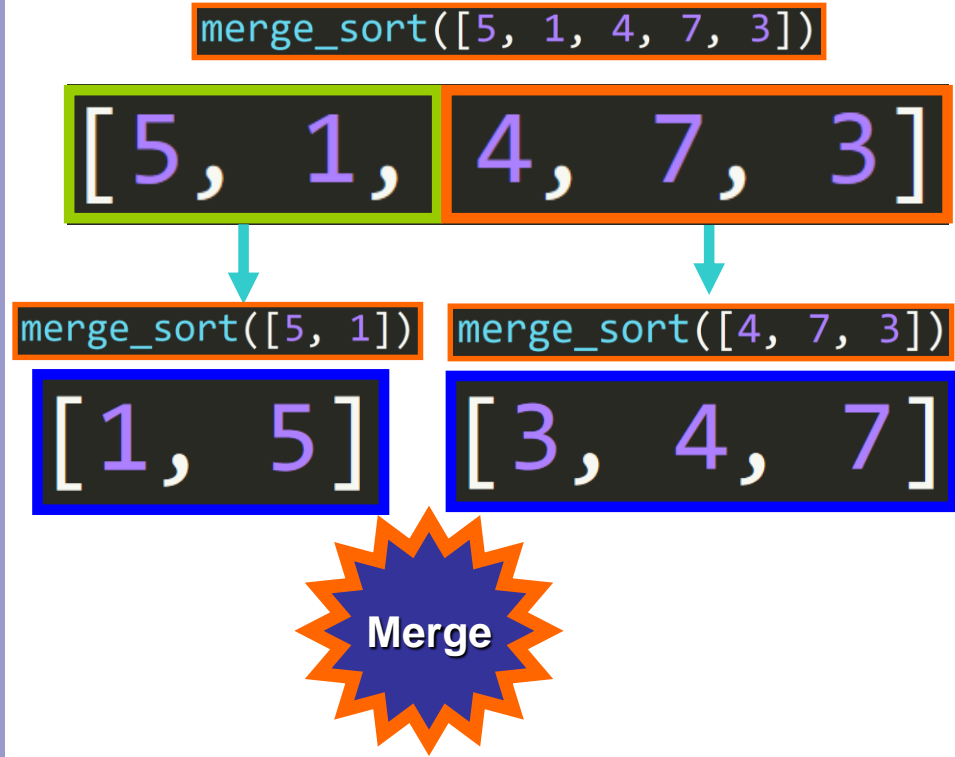
Merge



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[1, 3, 4, 5, 7]



To merge()

