

Merge two Sorted Arrays Without Extra Space

Problem statement: Given two sorted arrays **arr1[]** and **arr2[]** of sizes **n** and **m** in non-decreasing order. Merge them in sorted order. Modify arr1 so that it contains the first N elements and modify arr2 so that it contains the last M elements

```
def mergeTwoSortedArraysWithoutExtraSpace(arr1 : List[int], arr2 : List[int]) -> int:
```

```
    n=len(arr1)
```

```
    m=len(arr2)
```

```
    left=n-1
```

```
    right=0
```

```
    while(left>=0 and right<m):
```

```
        if arr1[left]>arr2[right]:
```

```
            arr1[left],arr2[right]=arr2[right],arr1[left]
```

```
            left-=1
```

```
            right+=1
```

```
        else:
```

```
            break
```

```
    arr1.sort()
```

```
    arr2.sort()
```