**Problem # 1331: Rank Transform of an Array. (Easy)**

<https://leetcode.com/problems/rank-transform-of-an-array/description/>

My Solution:

1. If arr is empty, then return it.
2. Let sortedArr to a list of sorted elements of the set of arr.

So we are eliminating duplicates for ranking.

1. Initialize RankDict to be an empty dictionary.
2. Traverse through SortedArr and assign ranking to each element starting with 1.

The element is the key and its rank is the value in RankDict.

1. Initialize res as an empty set to hold the result.
2. Iterate through arr, and get the rank of the element from RankDict. Append the rank to res.
3. Return res.

class Solution:

def arrayRankTransform(self, arr: List[int]) -> List[int]:

if len(arr) == 0:

return arr

sortedArr = sorted(list(set(arr)))

RankDict = {}

for i, num in enumerate(sortedArr):

RankDict[num] = i + 1

res = []

for i in range(len(arr)):

res.append(RankDict[arr[i]])

return res