

69. Given a collection of numbers, `nums`, that might contain duplicates, return *all possible unique permutations in any order*.

Example 1:

Input: `nums = [1,1,2]`

Output:

`[[1,1,2], [1,2,1], [2,1,1]]`

AIM : To find the permutations in any order

PROGRAM:

```
def permuteUnique(nums):
    def backtrack(path, counter):
        if len(path) == len(nums):
            result.append(path[:])
            return
        for num in counter:
            if counter[num] > 0:
                path.append(num)
                counter[num] -= 1
                backtrack(path, counter)
                path.pop()
                counter[num] += 1
    result = []
    counter = {}
    for num in nums:
        counter[num] = counter.get(num, 0) + 1
    backtrack([], counter)
    return result
```

`nums = [1, 1, 2]`

`print(permuteUnique(nums))`

`[[1, 1, 2], [1, 2, 1], [2, 1, 1]]`

OUTPUT:

TIME COMPLEXITY: $O(n! \cdot n)$