[**49. Group Anagrams**](https://leetcode.com/problems/group-anagrams/)

**DESCRIPTION:**

Given an array of strings strs, group **the anagrams** together. You can return the answer in **any order**.

An **Anagram** is a word or phrase formed by rearranging the letters of a different word or phrase, typically using all the original letters exactly once.

EXAMPLE:

**Input:** strs = ["eat","tea","tan","ate","nat","bat"]  
**Output:** [["bat"],["nat","tan"],["ate","eat","tea"]]

from collections import defaultdict

class Solution:

def groupAnagrams(self, strs: List[str]) -> List[List[str]]:

map = defaultdict(list)

result=[]

for i in strs:

sortedhash=tuple(sorted(i))

map[sortedhash].append(i)

for j in map.values():

result.append(j)

return result

EXPLANATION:

Anagrams are a collection of words which have same number and kind of letters which are rearranged using letters only once.

Here in this program we need to return a list which contains different anagrams in it and are grouped or present in another list seperated based on the letters.

We are using HashMap to solve this problem, so first I am going o create a dictionary named map to store the values to return the result.

Also we are going to create a list (result) so that we can append the values to it and return it at last to get the output as required.

Then we are going to iterate through the input list (strs) and add keys to the dictionary or hashmap.

Here sortedhash is taken as tuple because there must only be immutable values in keys of the dictionaries.

Also sorted() method is used so that the list is sorted in ascending order which makes it easier to iterate and it brings all the anagrams with same kind of letters together which makes it easy to get them.

Map[sortedhash].append(i)

This is udes to add key values to the hash map in an order. Now by using values() we can access all the values from hashmap which are the anagrams.

Then by iterating through the values in hashmap we append each of them into the list result list we created at the start.

After the completion of iteration we get the result list.

Now we return the result to get an output.