

# Group anagrams - sorting

class Solution:

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

```
    result = defaultdict(list)
```

```
    for s in strs:
```

```
        sorted_s = ''.join(sorted(s))
```

```
        result[sorted_s].append(s)
```

```
    return list(result.values())
```

```
print(Solution().group_anagrams(strs=["act", "pots", "tops", "cat", "stop", "pot"])
```

NOTE: The `join()` method in Python is used to concatenate the elements of an iterable into a single string with a specified delimiter.

Step 1:

`self` -> solution instance

`strs` -> ["act", "pots", "tops", "cat", "stop", "hot"]

Step 2:

`result` -> defaultdict => {} <class 'list'>

Step 3: for s in strs:  
s → "act"

Step 4: sorted\_s = ''.join(sorted(s))  
sorted\_s → "act"

Step 5: result[sorted\_s].append(s)  
result["act"].append("act")  
result → {"act": ["act"]}

Step 6: for s in strs:  
s → "opts"

Step 7: sorted\_s = ''.join(sorted(s))  
sorted\_s → "opst"

Step 8: result[sorted\_s].append(s)  
result["opst"].append("opts")  
result → {"act": ["act"], "opst": ["opts"]}

Step 9: for s in strs:

$s \rightarrow \text{"tops"}$

Step 10:  $\text{sorted\_s} = \text{" " . join(sorted(s))}$   
 $\text{sorted\_s} \rightarrow \text{"opst"}$

Step 11:  $\text{result}[\text{sorted\_s}].\text{append}(s)$   
 $\text{result}[\text{"opst"}].\text{append}(\text{"tops"})$   
 $\text{result} \rightarrow \{\text{"act"}: [\text{"act"}], \text{"opst"}: [\text{"tops"}, \text{"tops"}]\}$

Step 12: for  $s$  in  $\text{strs}$   
 $s \rightarrow \text{"cat"}$

Step 13:  $\text{sorted\_s} = \text{" " . join(sorted(s))}$   
 $\text{sorted\_s} \rightarrow \text{"act"}$

Step 14:  $\text{result}[\text{sorted\_s}].\text{append}(s)$   
 $\text{result}[\text{"act"}].\text{append}(\text{"cat"})$   
 $\text{result} \rightarrow \{\text{"act"}: [\text{"act"}, \text{"cat"}], \text{"opst"}: [\text{"tops"}, \text{"tops"}]\}$

Step 15: for  $s$  in  $\text{strs}$ :  $\text{sorted\_s} = \text{" " . join(sorted(s))}$   
 $s \rightarrow \text{"stop"}$   
 $\text{sorted\_s} \rightarrow \text{"opst"}$

Step 16: `result[sorted_s].append(s)`

`result`  $\rightarrow$  `{ "act": ["act", "cat"], "opst": ["pots", "tops", "stop"] }`

Step 17: `for s in strs: sorted_s = ''.join(sorted(s))`  
`s`  $\rightarrow$  `"hot"`

`sorted_s`  $\rightarrow$  `"ahot"`

Step 18: `result[sorted_s].append("hot")`

`result`  $\rightarrow$  `{ "act": ["act", "cat"], "opst": ["pots", "tops", "stop"], "ahot": ["hot"] }`

Step 19: `list(result.values())`

answer  $\rightarrow$  `[["act", "cat"], ["pots", "tops", "stop"], ["hot"]]` ✓