Group Anagrams Together | FACE Prep

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Write a program to input a set of words and group the anagrams together.

Sample inputs

Sample input-1

Enter the number of words : 6

Enter a word : bat

Enter a word : design

Enter a word : toc

Enter a word : signed

Enter a word : cot

Enter a word : tab

Sample output-1

The grouper anagrams are :

['bat', 'tab']

['design', 'signed']

['toc', 'cot']

Sample input-2

Enter the number of words : 8

Enter a word : beak

Enter a word : letter

Enter a word : bake

Enter a word : leg

Enter a word : yam

Enter a word : may

Enter a word : gel

Enter a word : eat

Sample output-2

The grouper anagrams are :

['beak', 'bake']

['letter']

['leg', 'gel']

['yam', 'may']

['eat']

Algorithm

- Define a function group_anagrams_together () to return the group of anagrams.
- Create an array to sort , join the words for the words in words[].
- Initialize a dictionary dict{}.
- Enumerate the words and append to the dictionary.
- Iterate a for loop to print the words in their index order.
- Create a list 'word'.
- Input the length of words of the list.
- Append the words to the list.
- Call function group_anagrams_together() to print the anagrams.

Code

Python 3

```python
1 def group_anagrams_together(words):
2     arr = [''.join(sorted(word)) for word in words]
3
4     dict = {}
5     for i, e in enumerate(arr):
6         dict.setdefault(e, []).append(i)
7
8     for index in dict.values():
9         print([words[i] for i in index])
10
11 words = []
12 n=int(input("Enter the number of words : "))
13 for i in range(n):
14     ele=input("Enter a word : ")
15     words.append(ele)
16 print("The grouper anagrams are : ")
17
```

Output

```
Enter the number of words : 8
Enter a word : serve
Enter a word : beak
Enter a word : male
Enter a word : verse
Enter a word : bake
Enter a word : eat
Enter a word : lame
Enter a word : tea
The grouper anagrams are :
['serve', 'verse']
['beak', 'bake']
['male', 'lame']
['eat', 'tea']
```

Python (Https://Www.Faceprep.In/Python)

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