772. Group Anagrams

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Given an array of strings, group anagrams together.

 Notice

All inputs will be in lower-case.

Have you met this question in a real interview?

Yes

**Example**

Given strs = ["eat", "tea", "tan", "ate", "nat", "bat"],

Return

[

["ate", "eat","tea"],

["nat","tan"],

["bat"]

]

<http://www.lintcode.com/en/problem/group-anagrams/#>

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package javaapplication14;

import java.util.ArrayList;

import java.util.Arrays;

import java.util.Collections;

import java.util.HashMap;

import java.util.List;

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public class JavaApplication14 {

/\*\*

\* @param args the command line arguments

\*/

public static String sortString(String inputString)

{

// convert input string to char array

char tempArray[] = inputString.toCharArray();

// sort tempArray

Arrays.sort(tempArray);

// return new sorted string

return new String(tempArray);

}

public static List<List<String>> groupAnagrams(String[] strs) {

// write your code here

HashMap<String, List<String> > hm =

new HashMap();

for(int i =0; i<strs.length; i++) {

String actual = strs[i];

String ord =sortString(actual);

if(hm.containsKey(ord)) {

List<String> aux = hm.get(ord);

aux.add(actual);

hm.put(ord,aux );

} else {

List<String> aux = new ArrayList();

aux.add(actual);

hm.put(ord,aux );

}

}

List<List<String>> lista =

new ArrayList();

for(String key : hm.keySet()) {

List<String> aux =

new ArrayList();

for(int i =0; i<hm.get(key).size(); i++) {

aux.add(hm.get(key).get(i) );

}

Collections.sort(aux);

lista.add(aux);

}

return lista;

}

public static void main(String[] args) {

// TODO code application logic here

String[] strs = {"eat", "tea", "tan", "ate", "nat", "bat"};

List<List<String>> res = groupAnagrams(strs);

for(List<String> lista : res) {

for(String elem : lista) {

System.out.print(elem + " ");

}

System.out.println();

}

//[["bat"],["eat","tea","ate"],["tan","nat"]]

// Expected

//[["ate","eat","tea"],["bat"],["nat","tan"]]

}

}