

Compile

```
shuqiny2@circinus-3 10:24:37 ~/253P/HW6/src
$ javac KNearestNeighborClusters.java
shuqiny2@circinus-3 10:24:45 ~/253P/HW6/src
$ java KNearestNeighborClusters
sample input
```

Input:	output:
15	K=2 Cluster 1: A, B, C, D, E, F, G, H, I, J, K, L Cluster 2: M, N, O
A 6 2 B 7 3 C 9 3 D 8 5 E 9 8 F 8 9 G 7 10 H 6 11 I 8 14 J 6 14 K 4 14 L 2 14 M 2 8 N 2 6 O 3 5	K=3 Cluster 1: A, B, C, D Cluster 2: E, F, G, H, I, J, K, L Cluster 3: M, N, O
2 3 4	K=4 Cluster 1: A, B, C, D Cluster 2: E, F, G, H Cluster 3: I, J, K, L Cluster 4: M, N, O

```

sample_input.txt
K = 2
    Cluster 1: A, B, C, D, E, F, G, H, I, J, K, L
    Cluster 2: M, N, O
K = 3
    Cluster 1: A, B, C, D
    Cluster 2: E, F, G, H, I, J, K, L
    Cluster 3: M, N, O
K = 4
    Cluster 1: A, B, C, D
    Cluster 2: E, F, G, H
    Cluster 3: I, J, K, L
    Cluster 4: M, N, O

```

Input: 0	output: error message
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```
shuqiny2@circinus-3 10:25:24 ~/253P/HW6/src
$ java KNearestNeighborClusters
sample_input2.txt
Invalid M = 0
Invalid file or graph!
```

Input:	output:
15	K=2 Cluster 1: A, B, C, D, E, F, G, H, I, J, K, L Cluster 2: M, N, O
A 6 2	K=3 Cluster 1: A, B, C, D
B 7 3	Cluster 2: E, F, G, H, I, J, K, L
C 9 3	Cluster 3: M, N, O
D 8 5	K=4 Cluster 1: A, B, C, D
E 9 8	Cluster 2: E, F, G, H
F 8 9	Cluster 3: I, J, K, L
G 7 10	Cluster 4: M, N, O
H 6 11	
I 8 14	
J 6 14	
K 4 14	
L 2 14	
M 2 8	
N 2 6	
O 3 5	
2	
3	
4	
16	Error message

```

sample_input3.txt
Invalid k = 16
K = 2
    Cluster 1: A, B, C, D, E, F, G, H, I, J, K, L
    Cluster 2: M, N, O
K = 3
    Cluster 1: A, B, C, D
    Cluster 2: E, F, G, H, I, J, K, L
    Cluster 3: M, N, O
K = 4
    Cluster 1: A, B, C, D
    Cluster 2: E, F, G, H
    Cluster 3: I, J, K, L
    Cluster 4: M, N, O

```

Input:

26

A	27	9
B	8	6
C	4	23
D	8	19
E	27	11
F	1	27
G	6	8
H	9	17
I	17	9
J	8	20
K	20	0
L	20	5
M	8	29
N	25	15
O	5	25
P	19	18
Q	21	3
R	23	20
S	2	10
T	22	29
U	24	30
V	6	25
W	9	13
X	11	12
Y	19	5
Z	7	7

3

4

5

output:

K = 3

Cluster 1: A, E, N, P, R

Cluster 2: B, C, D, F, G, H, I, J, K, L, M, O, Q, S, V, W, X, Y, Z

Cluster 3: T, U

K = 4

Cluster 1: A, E, N, P, R

Cluster 2: B, C, D, F, G, H, J, M, O, S, V, W, X, Z

Cluster 3: I, K, L, Q, Y

Cluster 4: T, U

K = 5

Cluster 1: A, E, N, P, R

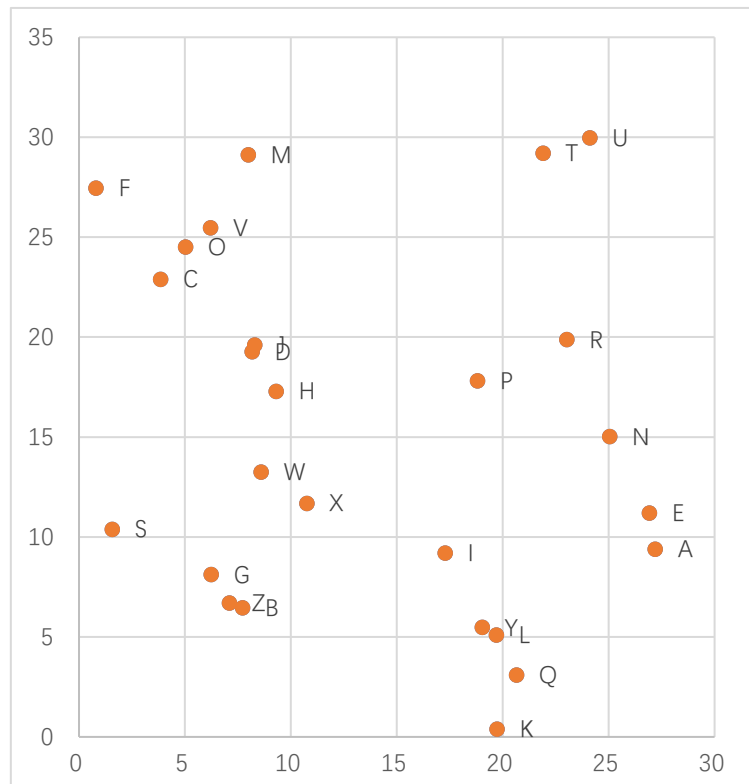
Cluster 2: B, G, S, Z

Cluster 3: C, D, F, H, J, M, O, V, W, X

Cluster 4: I, K, L, Q, Y

Cluster 5: T, U

Input:

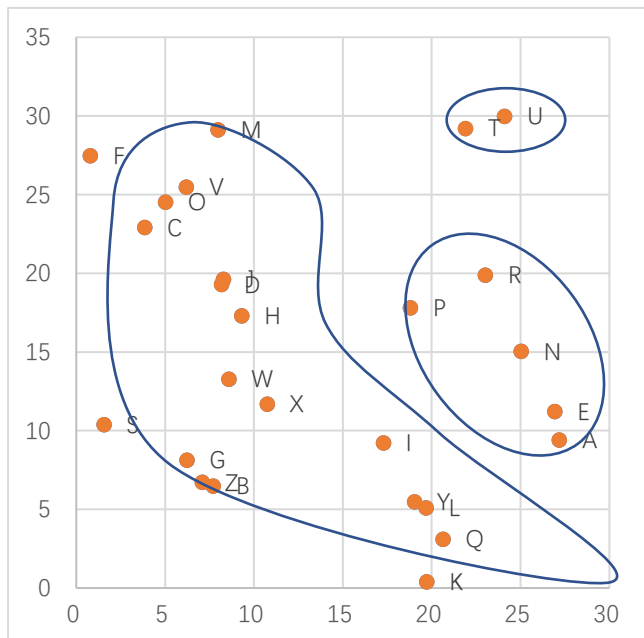


```

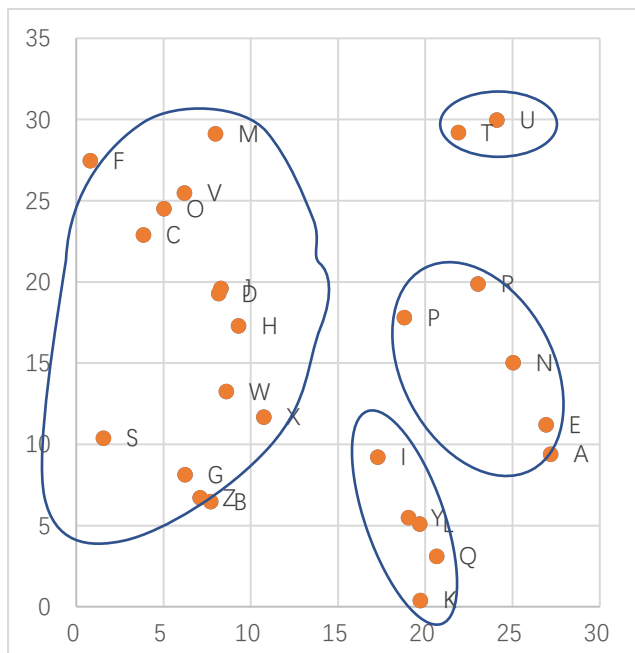
shuqiny2@circinus-26 21:22:06 ~/253P/HW6/src
$ java KNearestNeighborClusters
sample_input4.txt
K = 3
    Cluster 1: A, E, N, P, R
    Cluster 2: B, C, D, F, G, H, I, J, K, L, M, O, Q, S, V, W, X, Y, Z
    Cluster 3: T, U
K = 4
    Cluster 1: A, E, N, P, R
    Cluster 2: B, C, D, F, G, H, J, M, O, S, V, W, X, Z
    Cluster 3: I, K, L, Q, Y
    Cluster 4: T, U
K = 5
    Cluster 1: A, E, N, P, R
    Cluster 2: B, G, S, Z
    Cluster 3: C, D, F, H, J, M, O, V, W, X
    Cluster 4: I, K, L, Q, Y
    Cluster 5: T, U

```

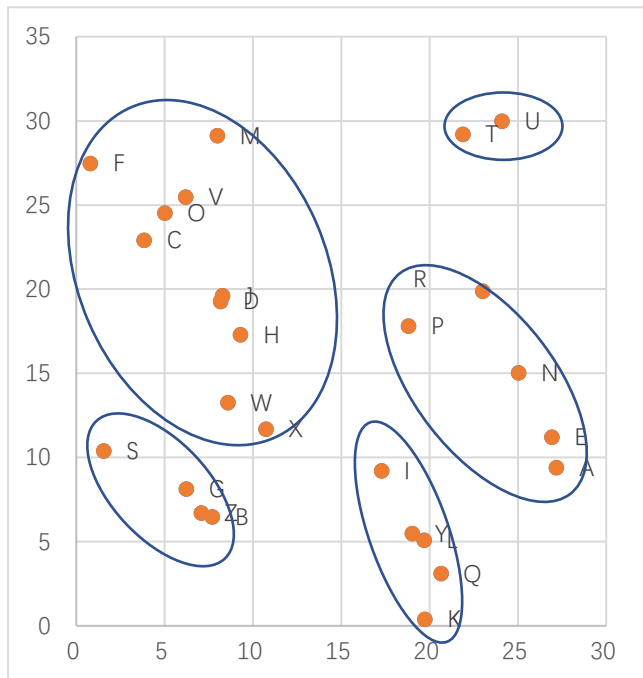
// k = 3



// k = 4



// k = 5



LeetCode 1129

LeetCode

Explore Day 13 Problems Mock new Contest Discuss Store

Description

Solution

Discuss (260)

Submissions

Success Details >

Runtime: 12 ms, faster than 33.92% of Java online submissions for Shortest Path with Alternating Colors.




Memory Usage: 39.6 MB, less than 68.01% of Java online submissions for Shortest Path with Alternating Colors.

Next challenges:

Binary Tree Right Side View

Is Graph Bipartite?

Regions Cut By Slashes

Show off your acceptance:   

Time Submitted	Status	Runtime	Memory	Language
11/13/2020 20:56	Accepted	12 ms	39.6 MB	java
11/13/2020 17:54	Wrong Answer	N/A	N/A	java
11/13/2020 16:23	Wrong Answer	N/A	N/A	java

Problems

Pick One

< Prev

1129/1651

Next >

i Java Autocomplete

```
1 class Solution {
2
3     public int[] shortestAlternatingPaths(int n, int[][] red_edges, int[][] blue_edges) {
4
5         int[][] graph = new int[n][n];
6         for(int i = 0; i < red_edges.length; i++)
7             graph[red_edges[i][0]][red_edges[i][1]] = 1;
8         for(int i = 0; i < blue_edges.length; i++)
9             if (graph[blue_edges[i][0]][blue_edges[i][1]] == 1)
10                 graph[blue_edges[i][0]][blue_edges[i][1]]++; // parallel edge
11             else
12                 graph[blue_edges[i][0]][blue_edges[i][1]] = -1;
13         }
14
15         int[] res = new int[n];
16         Arrays.fill(res, Integer.MAX_VALUE); //学到了
17         res[0] = 0;
18         bfs(graph, res);
19     }
20 }
```

Testcase Run Code Result Debugger

Accepted Runtime: 6 ms

Your input
[[0,1],[1,2]]

Output
[0,1,-1]
[0,1,3,2,4]

Expected
[0,1,-1]
[0,1,3,2,4]

Diff

Console How to create a testcase

Run Code Submit

LeetCode 802

LeetCode

Explore 13 Problems Mock 1 Contest Discuss Store

☆ Premium

Description

Solution

Discuss (262)

Submissions

Success

Details >

Runtime: **4 ms**, faster than **99.53%** of Java online submissions for Find Eventual Safe States.

Memory Usage: **49.5 MB**, less than **19.95%** of Java online submissions for Find Eventual Safe States.

Next challenges:

Reconstruct ItineraryLowest Common Ancestor of Deepest Leaves

Maximum Product of Splitted Binary Tree

Show off your acceptance:

Time Submitted	Status	Runtime	Memory	Language
11/14/2020 00:41	Accepted	4 ms	49.5 MB	java
11/13/2020 22:37	Accepted	27 ms	47.6 MB	java

i Java

Autocomplete

```
//
18 boolean hasCycle(int[][] graph, int s, int[] state) {
19     if(state[s] != 0)
20         return state[s] == 2;
21
22     state[s] = 2;
23     for (int i = 0; i < graph[s].length; i++)
24         if (hasCycle(graph, graph[s][i], state))
25             return true;
26
27     state[s] = 1;
28     return false;
29 }
30
31
32 // 29%
33 public List<Integer> eventualSafeNodes(int[][] graph) {
34     int n = graph.length;
35     List<Integer> res = new ArrayList<>();
36
37     if (n == 0)
```

Your previous code was restored from your local storage. [Reset to default](#)

TestcaseRun Code ResultDebugger

Accepted

Runtime: 0 ms

Your input

[[1,2],[2,3],[5],[0],[5],[],[[]]]

Output

[2,4,5,6]

Diff

Expected

[2,4,5,6]

Problems

Pick One

< Prev 802/1651 Next >

Console

How to create a testcase

Run Code

Submit