```java
1 package assess2;
2
3 import java.util.ArrayList;
6
7 public class q2 {
8     public static void add(ArrayList<Integer>[] adj, char u,
   char v) {
9         adj[u - 'a'].add(v - 'a');
10    }
11    public static void Sort(ArrayList<Integer>[] adj, int u,
   boolean[] visit, Stack<Integer> st) {
12        visit[u] = true;
13
14        for (int i = 0; i < adj[u].size(); i++) {
15            int v = adj[u].get(i);
16            if (!visit[v]) {
17                Sort(adj, v, visit, st);
18            }
19        }
20
21        st.push(u);
22    }
23
24    public static void topSort(ArrayList<Integer>[] adj, int
   V) {
25        boolean[] visit = new boolean[V];
26        Stack<Integer> st = new Stack<Integer>();
27
28        for (int i = 0; i < V; i++) {
29            visit[i] = false;
30        }
31
32        for (int i = 0; i < V; i++) {
33            if (!visit[i]) {
34                Sort(adj, i, visit, st);
35            }
36        }
37
38        while (!st.empty()) {
39            System.out.print((char) (st.pop() + 'a') + " ");
```

```java
40
41         }
42         System.out.println("");
43         System.out.println(0);
44     }
45
46
47     public static void printOrder(String[] words, int n, int
   k) {
48         ArrayList<Integer>[] adj = new ArrayList[k];
49
50         for (int i = 0; i < k; i++) {
51             adj[i] = new ArrayList<Integer>();
52         }
53
54         for (int i = 0; i < n - 1; i++) {
55             String word1 = words[i];
56             String word2 = words[i + 1];
57
58             int j = 0;
59             while (j < word1.length() && j < word2.length())
60             {
61                 if (word1.charAt(j) != word2.charAt(j)) {
62                     add(adj, word1.charAt(j),
   word2.charAt(j));
63                     break;
64                 }
65                 j++;
66             }
67
68         }
69
70         topSort(adj, k);
71
72     }
73
74     public static void main(String[] args) {
75
76         // TODO Auto-generated method stub
77         Scanner s=new Scanner(System.in);
```

```java
78          int n=s.nextInt();
79          int k=s.nextInt();
80          String[] words = {"caa", "aaa", "aab"};
81
82
83      printOrder(words, n, k);
84
85
86
87  }
88
89
90  }
91
92
```