Day 94 coding Statement :

Kekocity's population consist of N gnomes numbered with unique ids from 1 to N. As they are very joyful gnomes,
they usually send jokes to their friends right after they get any (even if they knew it before) via their social network named as Mybeard. Mybeard became popular in the city because of message auto-deletion.
It takes exactly one minute to read and resend joke to mates.

Mayor of Kekocity, Mr. Shaikhinidin, is interested in understanding how the jokes are spread. He gives you database
of Mybeard social network, and wants you to answer some queries on it.

You will be given a list of friends for every gnome and M queries of the following type: Who will receive a message
with joke after exactly K minutes, if the creator of joke was gnome with id x?

```
import java.util.*;
public class Main {
public static void main(String args[]) {
Scanner input = new Scanner(System.in);
int n = input.nextInt();
long g[][][] = new long[30][500][9];

for (int i = 0; i < n; i++)
for (int j = 0; j < n; j++)
if (input.nextInt() == 1)
g[0][i][j / 60] |= 1l << (j % 60);
for (int t = 1; t < 30; t++)
for (int i = 0; i < n; i++)
for (int j = 0; j < n; j++)
if ((g[t - 1][i][j / 60] & (1l << (j % 60))) != 0)
for (int k = 0; k < 9; k++)
g[t][i][k] |= g[t - 1][j][k];
int m = input.nextInt();
while ((m--) > 0) {
int len = input.nextInt(), x = input.nextInt() - 1;
long mask[] = new long[9];
mask[x / 60] = 1l << (x % 60);
for (int t = 0; t < 30; t++)
if ((len & (1l << t)) != 0) {
long newmask[] = new long[9];
for (int i = 0; i < n; i++)
if ((mask[i / 60] & (1l << (i % 60))) != 0)
for (int j = 0; j < 9; j++)
newmask[j] |= g[t][i][j];
for (int i = 0; i < 9; i++)
mask[i] = newmask[i];
```

```
}
int ans[] = new int[n];
int cnt = 0;
for (int i = 0; i < n; i++)
if ((mask[i / 60] & (1l << (i % 60))) != 0)

ans[cnt++] = i + 1;
System.out.println(cnt);
for (int i = 0; i < cnt; i++)
System.out.print(ans[i] + (i == cnt - 1 ? "\n" : " "));
if (cnt == 0)
System.out.println(-1);
}
}
}
```