

```
1 import java.util.*;
2
3 class InterviewQuestion {
4     /**
5      * 1) What is the output of this program?
6      * 2) What is the runtime complexity?
7      */
8
9     static void makeLists(int N) {
10         ArrayList<List<Integer>> x = new ArrayList<>(); // [[]]
11         ArrayList<Integer> y = new ArrayList<>(Arrays.asList(1, 2, 3)); // [1, 2, 3]
12
13         x.add(y);
14         x.add(new ArrayList<>(Arrays.asList(3))); // Push [3] to x
15         x.add(new ArrayList<>(Arrays.asList(7))); // Push [7] to x
16
17         for (int i = 0; i < N; i++) {
18             var z = new ArrayList<>(Arrays.asList(N)); // [N]
19             if (i % 2 == 0) {
20                 x.add(2, y); // Insert at index 2
21             }
22             else {
23                 x.add(2, z); // Insert at index 2
24             }
25         }
26
27         y.add(0, 100); // Insert at index 0
28         x.get(0).add(5);
29         x.get(1).add(10);
30
31         System.out.println(y);
32         System.out.println(x);
33     }
34
35     public static void main(String[] args) {
36         makeLists(5);
37     }
38 }
39
```