

```
import java.util.ArrayList;
import java.util.HashMap;
import java.util.HashSet;
import java.util.LinkedList;
import java.util.List;
import java.util.Map;
import java.util.Queue;
import java.util.Set;
```

```
class Employee {
    List<Employee> children = new ArrayList<>();
    int id;
    public Employee(int id) {
        this.id = id;
    }
}
```

```
public class LCA_KnaryTree {
    public static Employee findLCA (Employee ceo, Employee e1, Employee e2) {
        if (e1 == ceo || e2 == ceo) return ceo;
        if (e1 == e2) return e1;
        Map<Employee, Employee> map = new HashMap<>();

        boolean b1 = false;
        boolean b2 = false;
        Queue<Employee> queue = new LinkedList<>();
        queue.offer(ceo);
        while (!queue.isEmpty()) {
            int size = queue.size();
            for (int i = 0; i < size; i++) {
                Employee e = queue.poll();
                if (e == e1) {
                    b1 = true;
                }

                if (e == e2) {
                    b2 = true;
                }

                for (Employee ec : e.children) {
                    map.put(ec, e);
                    queue.offer(ec);
                }
            }
        }

        if (!b1 || !b2) return null;

        Set<Employee> set = new HashSet<>();

        while (e1 != ceo) {
            set.add(e1);
            e1 = map.get(e1);
        }
    }
}
```

```
        while (e2 != ceo) {  
            if (set.contains(e2)) return e2;  
            e2 = map.get(e2);  
        }  
        return null;  
    }  
}
```