// DAA Practical 2- Job Scheduling

import java.util.ArrayList;

import java.util.Collections;

import java.util.Comparator;

import java.util.List;

class Job {

char id;

int deadline;

int profit;

public Job(char id, int deadline, int profit) {

this.id = id;

this.deadline = deadline;

this.profit = profit;

}

}

public class Main {

public static void jobSeq(List<Job> jobs) {

int n = jobs.size();

Collections.sort(jobs, Comparator.comparing(Job::profit).reversed());

char[] res = new char[n];

boolean[] slot = new boolean[n];

for (int i = 0; i < n; i++) {

for (int j = Math.min(n, jobs.get(i).deadline) - 1; j >= 0; j--) {

if (!slot[j]) {

slot[j] = true;

res[j] = jobs.get(i).id;

break;

}

}

}

for (int i = 0; i < n; i++) {

if (slot[i]) {

System.out.print(res[i] + " ");

}

}

}

public static void main(String[] args) {

List<Job> jobs = new ArrayList<>();

jobs.add(new Job('a', 2, 100));

jobs.add(new Job('b', 1, 43));

jobs.add(new Job('c', 3, 56));

jobs.add(new Job('d', 1, 17));

jobs.add(new Job('e', 3, 65));

jobSeq(jobs);

}

}