JOB SCHEDULING ALGORITHM

```
import java.util.*;
public class JobScheduling {
   static class Job {
      char id;
      int deadline, profit;
      Job(char id, int deadline, int profit) {
         this.id = id;
         this.deadline = deadline;
         this.profit = profit;
      }
   }
   static void jobScheduling(Job[] jobs) {
      Arrays.sort(jobs, Comparator.comparingInt(j -> -j.profit));
      int maxDeadline = 0;
      for (Job : jobs) {
         if (job.deadline > maxDeadline)
            maxDeadline = job.deadline;
      }
      char[] result = new char[maxDeadline];
      boolean[] slot = new boolean[maxDeadline];
      for (int i = 0; i < maxDeadline; i++) {
         slot[i] = false;
      }
      for (int i = 0; i < jobs.length; i++) {
         for (int j = Math.min(maxDeadline - 1, jobs[i].deadline - 1); j >= 0; j--) {
            if (!slot[j]) {
```

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                result[j] = jobs[i].id;
                slot[j] = true;
                break;
            }
        }
    }
    System.out.println("Job Schedule:");
    for (char job : result) {
        if (job != '\0')
            System.out.print(job + " ");
    }
  }
  public static void main(String[] args) {
    Job[] jobs = {
            new Job('a', 2, 100),
            new Job('b', 1, 19),
            new Job('c', 2, 27),
            new Job('d', 1, 25),
            new Job('e', 3, 15)
    };
    jobScheduling(jobs);
  }
}
```

OUTPUT: