JobSequencing.java

```java
1    package com.example.array;
2
3    import java.util.ArrayList;
4    import java.util.Arrays;
5
6    public class JobSequencing {
7
8        static class Job implements Comparable<Job> {
9            char id;
10           int deadline;
11           int profit;
12
13           // Compare jobs by profit in descending order
14           @Override
15           public int compareTo(Job otherJob) {
16  2              return otherJob.profit - this.profit;
17           }
18
19           public Job(char id, int deadline, int profit) {
20               this.id = id;
21               this.deadline = deadline;
22               this.profit = profit;
23           }
24       }
25
26       // Function to print the job sequence
27       public static String findJobSequence(ArrayList<Job> jobs, int size) {
28           Boolean[] slots = new Boolean[size];
29  1          Arrays.fill(slots, false);
30
31           int result[] = new int[size];
32
33           // Iterate through jobs to find the optimal job sequence
34  2          for (int i = 0; i < size; i++) {
35  3              for (int j = jobs.get(i).deadline - 1; j >= 0; j--) {
36  1                  if (!slots[j]) {
37                          result[j] = i;
38                          slots[j] = true;
39                          break;
40                      }
41                  }
42           }
43
44           StringBuilder jobSequenceBuilder = new StringBuilder();
45           jobSequenceBuilder.append("Job Sequence: ");
46  2          for (int i = 0; i < jobs.size(); i++) {
47  1              if (slots[i]) {
48                      jobSequenceBuilder.append(jobs.get(result[i]).id).append(" -> ");
49                  }
50           }
51
52  2          if (jobSequenceBuilder.length() >= 4) {
53  2              jobSequenceBuilder.setLength(jobSequenceBuilder.length() - 4);
54           }
55
56           // Return the job sequence as a string
57  1          return jobSequenceBuilder.toString();
```

```
58        }
59    }
```

Mutations

16	1. replaced int return with 0 for com/example/array/JobSequencing$Job::compareTo → KILLED 2. Replaced integer subtraction with addition → KILLED
29	1. removed call to java/util/Arrays::fill → KILLED
34	1. negated conditional → KILLED 2. changed conditional boundary → KILLED
35	1. changed conditional boundary → KILLED 2. Replaced integer subtraction with addition → KILLED 3. negated conditional → KILLED
36	1. negated conditional → KILLED
46	1. negated conditional → KILLED 2. changed conditional boundary → KILLED
47	1. negated conditional → KILLED
52	1. negated conditional → KILLED 2. changed conditional boundary → SURVIVED
53	1. removed call to java/lang/StringBuilder::setLength → KILLED 2. Replaced integer subtraction with addition → KILLED
57	1. replaced return value with "" for com/example/array/JobSequencing::findJobSequence → KILLED

Active mutators

- CONDITIONALS_BOUNDARY
- EMPTY_RETURNS
- FALSE_RETURNS
- INCREMENTS
- INVERT_NEGS
- MATH
- NEGATE_CONDITIONALS
- NULL_RETURNS
- PRIMITIVE_RETURNS
- TRUE_RETURNS
- VOID_METHOD_CALLS

Tests examined

- com.example.array.JobSequencingTest.testJobSequencingWithExampleCase(com.example.array.JobSequencingTest) (0 ms)

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