Lab 7 (7 Mar 2019)

Problem 1 : Implement the greedy algorithm for interval scheduling. Given a list of intervals you need to print a subset of non-overlapping intervals whose size is maximal. You can take the start/finish times of the intervals to be positive integers. A sample i/o is given below:

Input:

```
Enter the number of intervals: 8
1 3
2 8
2 5
3 7
4 8
4 6
6 12
7 10
```

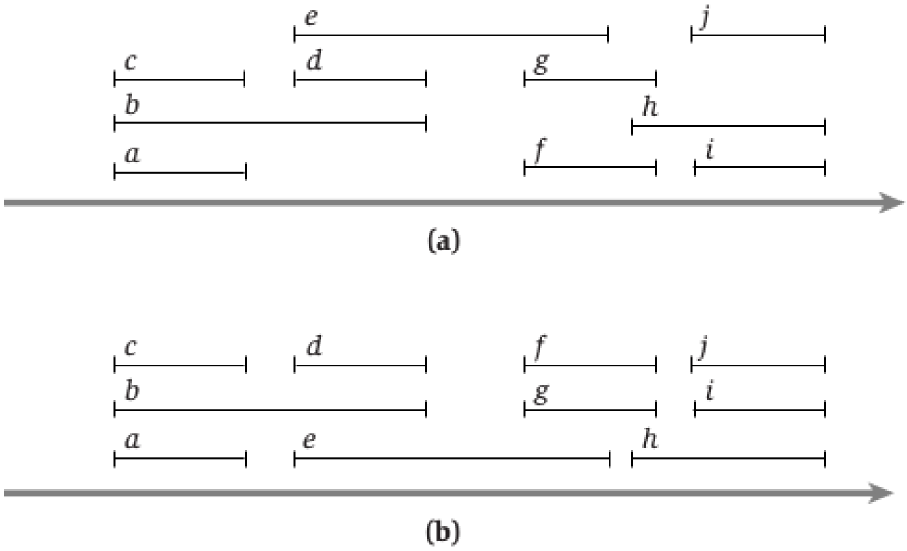
Output:

```
[1, 3]  [4, 6]  [7, 10]
```

Problem 2: Implement the greedy interval *partitioning* algorithm. Given a list of jobs (intervals) you need to find the minimum number of resources needed to schedule **all** the jobs such that each resource schedules only non-overlapping jobs. (The example/picture below is taken from KT.)

Input:

```
Enter the number of intervals: 10
1 3
1 6
1 3
4 6
4 10
8 12
8 12
11 15
13 15
13 15
```



Output:

```
Minimum number of resources: 3
Resource 1 jobs:  [1,3]  [4,10]  [11,15]
Resource 2 jobs:  [1,6]  [8,12]  [13,15]
Resource 3 jobs:  [1,3]  [4,6]  [8,12]  [13,15]
```