

Problem Challenge 2

We'll cover the following ^

- Maximum CPU Load (hard)
- Try it yourself

Maximum CPU Load (hard)

We are given a list of Jobs. Each job has a Start time, an End time, and a CPU load when it is running. Our goal is to find the **maximum CPU load** at any time if all the **jobs are running on the same machine**.

Example 1:

```
Jobs: [[1,4,3], [2,5,4], [7,9,6]]
Output: 7
Explanation: Since [1,4,3] and [2,5,4] overlap, their maximum CPU load (3+4=7) will be when both the jobs are running at the same time i.e., during the time interval (2,4).
```

Example 2:





```
Jobs: [[6,7,10], [2,4,11], [8,12,15]]
Output: 15
Explanation: None of the jobs overlap, therefore we will take the maximum load of any job which is 15.
```

Example 3:

```
Jobs: [[1,4,2], [2,4,1], [3,6,5]]
Output: 8
Explanation: Maximum CPU load will be 8 as all jobs overlap during the time interval [3,4].
```

Try it yourself

Try solving this question here:

 Java	 Python3	 JS	 C++
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------

```
1 from heapq import *
2
3
4 class job:
5     def __init__(self, start, end, cpu_load):
6         self.start = start
7         self.end = end
8         self.cpu_load = cpu_load
9
10 def find_max_cpu_load(jobs):
11     # TODO: Write your code here
12     return -1
13
14
15 def main():
16     print("Maximum CPU load at any time: " + str(find_max_cpu_load([job(1, 4, 3), job(2, 5, 4), job(7, 9, 6)])))
17     print("Maximum CPU load at any time: " + str(find_max_cpu_load([job(6, 7, 10), job(2, 4, 11), job(8, 12, 15)])))
18     print("Maximum CPU load at any time: " + str(find_max_cpu_load([job(1, 4, 2), job(2, 4, 1), job(3, 6, 5)])))
19
20
21 main()
22
```

Run

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Solution Review: Problem Challenge 1

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Solution Review: Problem Challenge 2

✓

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