

Project 1 Description

Task: Recall the 1 machine scheduling with deadlines problem where the goal was to minimize the sum of the latenesses of the jobs. You are to write a program to solve instances of this problem. The input will be provided to your program in a text file called jobs.txt. Each line of this file will contain 2 numbers separated by whitespace. The two numbers will represent the processing time and deadline of each job.

Reminders: In class we discussed the problem, proved several natural greedy algorithms failed, and outlined one inefficient algorithm for the problem. This is a senior level class and while the project is not difficult. You are expected to submit reasonable code (appropriate structure, sufficient commenting, proper variable naming, following the sample interaction, etc).

Submission: Turn your program in on moodle no later than midnight the day of the final.

Sample Interaction:

```
Project 1: 1 Machine Scheduling with Deadlines to Minimize the Sum of Lateness
Reading jobs.txt
The best order to schedule the jobs is:
3, 1, 2, 7, 4, 6, 5
It has a total lateness of 21.
```