HW #2

Homework exercises should be done individually (You should write the solution by yourself). Solutions must be prepared in the Python programming language and submitted electronically as .py file before **11.59 pm on Sunday, November 14**. No credit will be given to solutions obtained verbatim from the Internet or other sources. **To get full credit for each question, you need to provide a brief explanation of your codes and the efficiency analysis with comments.**

1. There is a sequence of n tasks $[t_1, t_2, \ldots, t_n]$ where every task has a deadline d_i and an associated profit p_i. Every task takes a single unit of time and only one task can be scheduled at a time. Also, the profit p_i can only be earned if the associated task is finished before the deadline d_i. Under these constraints, devise a brute-force algorithm that takes such a sequence as input, and outputs a scheduling of tasks having the maximum possible total profit.