

Quiz II

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1. N jobs are to be processed. Two machines A and B are available. If job i is processed on machine A , it requires time a_i , while on machine B , it takes time b_i . Due to peculiarities inherent in the machines, it is entirely possible that $a_i < b_i$ for some job i , while $a_j > b_j$ for another job $j, j \neq i$. Obtain a dynamic programming formulation to determine the minimum time needed to process all the jobs. Observe that jobs cannot be split across machines. Also provide an algorithm for the actual assignment of jobs to the machines.