

My table:

Jobs	1	2	3	4	5
Process Time	2	2	1	3	4
Due Time	3	3	2	9	4

Sets:

J : Jobs ($j = 1, 2, 3, 4, 5$)

T = Time ($t = 1, 2, 3, \dots$)

Parameters:

P_{jt} : processing time

D_{jt} : due time

Decision Variables:

x_{jt} : 1 if job j starts at t

0 otherwise

$tardy_{jt}$: 1 if job j completed after due time

0 otherwise

Objective Function:

$$\min Z = \sum tardy_{jt} \times x_{jt}$$

s. t.

$$\sum_{t=1}^{T-P_{jt}+1} x_{jt} = 1$$

$$x_{jt} + x_{j't'} \leq 1 \quad j' \in J / \{j\}$$

$$\sum_{j \in J} \sum_{s=t-P_{jt}+1}^t x_{js} \leq 1 \quad t \in T \quad (\text{alternative formula})$$