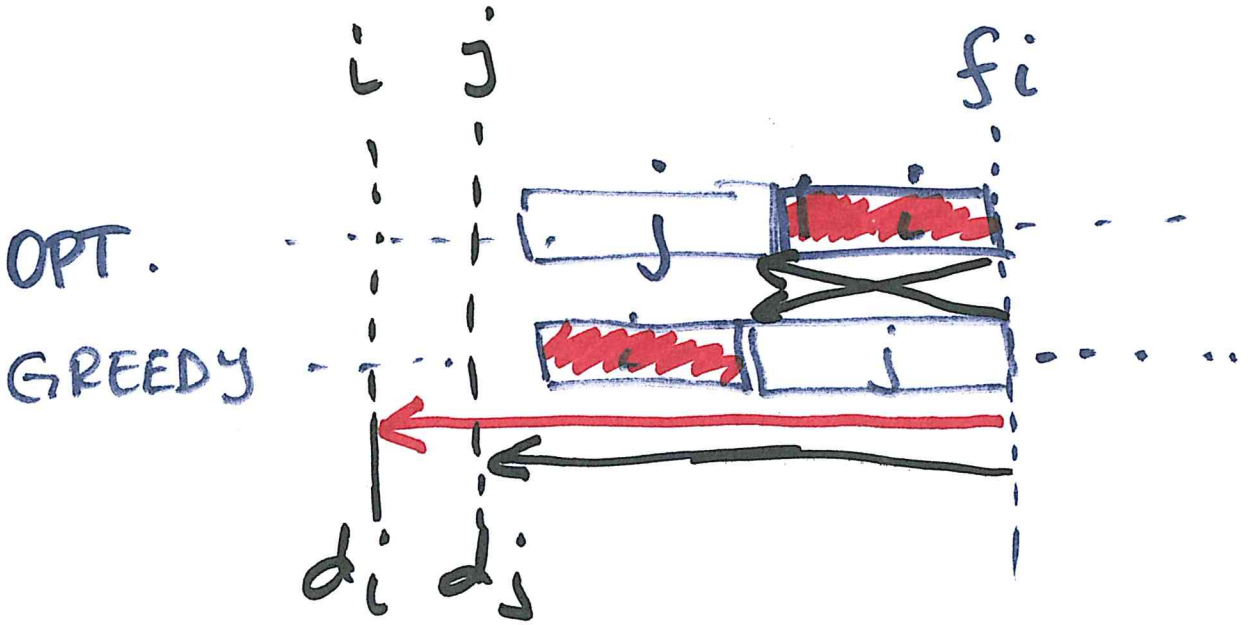


$$\text{Late}(\text{Job-}j)_{\text{GREEDY}} = f_i - d_j$$

$$\leq$$

$$\text{Late}(\text{Job-}i)_{\text{OPT}} = f_i - d_i$$

i, j : $\boxed{r_i < r_j}$

OPT ..... r_i r_j .....

GREEDY ..... r_j r_i .....

t $t+1$

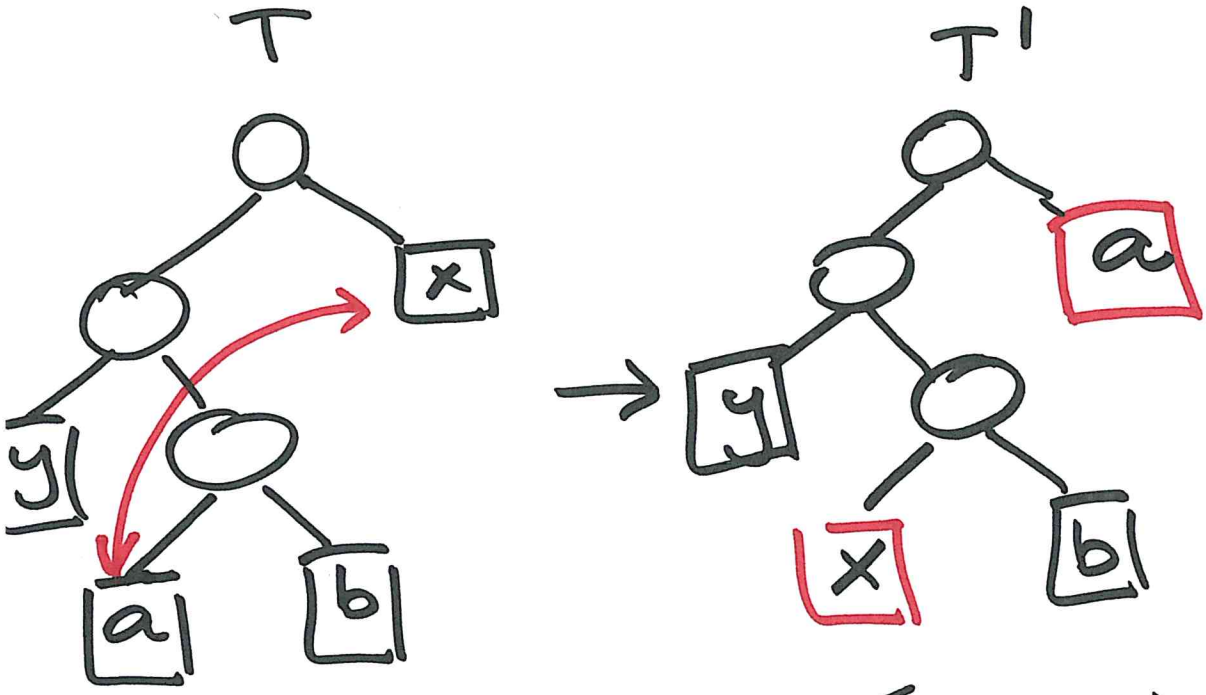
OPT : Cost = $100 \cdot r_i^t + 100 \cdot r_j^{t+1}$

GREEDY: Cost = $100 \cdot r_j^t + 100 \cdot r_i^{t+1}$

$CG - CO = 100 \left(r_j^t + r_i^{t+1} - r_i^t - r_j^{t+1} \right) \leq 0$

$r_i^{t+1} - r_i^t \leq r_j^{t+1} - r_j^t$

$\boxed{r_i^t (r_i - 1) \leq r_j^t (r_j - 1)}$



$$\text{Cost}(T) = \cancel{f_T(y) \cdot d_T(y)} + f_T(a) \cdot d_T(A) + \cancel{f_T(b) \cdot d_T(b)} + f_T(x) d_T(x)$$

$$-$$

$$\text{Cost}(T') = \cancel{f_{T'}(y) \cdot d_{T'}(y)} + f_{T'}(x)\, d_{T'}(x) + \cancel{f_{T'}(b) \cdot d_{T'}(b)} + f_{T'}(a)\, d_{T'}(a)$$

$$C(T) - C(T') = \underline{f(a)} \cdot d_T(A) + \underline{\underline{f(x)}} \cdot d_T(x) - \underline{\underline{f(x)}} \cdot d_T(a) + \underline{f(a)}\, d_T(x)$$