Bonus 4

The book mentions two different types of algorithms with precedence. The first one is an algorithm from 1973 invented by Lawler, which is called *latest deadline first (LDF)*. The algorithm is optimal with precedence from the perspective of maximum lateness. In essence the algorithm construct backwards from the tasks and choose the “last” one to be executed. However this algorithm does not support arrival of tasks.

The second mentioned algorithm is *earliest deadline first (EDF)* with modification. EDF\* supports late arrivals and maximum the lateness. This algorithm is a modified version of *EDF* and was proposed by Chetto in 1990. The difference between EDF and EDF\* is that all tasks deadlines is modified and corrects the anomaly before using EDF. The algorithm works as follow; we have a set of tasks T that have a task execution time and deadlines. The deadlines will be modified with equation

$$d\_{i}^{'}=min⁡(d\_{i}, \min\_{j\in D(i)}(d\_{j}^{'}-e\_{j}))$$

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