Sorted-Balance:

Start with no jobs assigned

Set $T_i = 0$ and $A(i) = \emptyset$ for all machines M_i

Sort jobs in decreasing order of processing times t_j

Assume that $t_1 \geq t_2 \geq \ldots \geq t_n$

For $j = 1, \ldots, n$

Let M_i be the machine that achieves the minimum $\min_k T_k$

Assign job j to machine M_i

Set $A(i) \leftarrow A(i) \cup \{j\}$

Set $T_i \leftarrow T_i + t_j$

 ${ t EndFor}$