Kayra Karlıbel- Semina Tuana akın

IE 343 – Term project

**Neighbor generation:**

A screen shot of a computer program

Description automatically generated with low confidence

We pick a random item, then we put it into the bag if it does not exist in the bag. Otherwise, we remove it from the bag.

**Stopping condition:**



We count the number of not changing of best solution. So that we can get an early stopping condition. If the number of not changing exceeds the max. number of not change parameter (default value: 10), the algorithm stops.

# pARAMETER ANALYSIS

Increasing minimum temperature decreases objective value.

Increasing maximum temperature increases the objective value.

Increasing cooling rate increases the objective value.

According to the results, we consider the maximum temperature should be 200, the cooling rate should be 0.95 and the minimum temperature should be 5. Note that we ran them twice and took the average of them because of randomness. With these parameters, the average of objective values (we ran twice) is 1486.