DataCompression

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1   Initial Population

The Initial population contains the population size amount of shuffled lists.

2   Fitness Criteria

The Fitness Criteria was based on the relative improvement to the original list.

3   Threshold

The Threshold is based on whatever the client submits but I found a good improvement to be around 1.1

4   Selection Type

I found that Roulette produced better results but requires more computation so it takes longer per generation than tournament.

5   Mutations

I swapped the position of two random strings in the given list. The frequency of this move depended on the clients input.

6   Crossover

I locked every other string in place from the first list, I then filled in the empty spaces with the elements from the second list that where not locked in to place from the first list. This preserves position and ordering of half the first list and preserves the ordering of the strings from the second list, repeat with the second list being locked and the first list filling in.