ARTIFICIAL INTELLIGENCE

TSP COMPETITION (TRIAL)
GROUP 4

Methodology and Iterative improvement

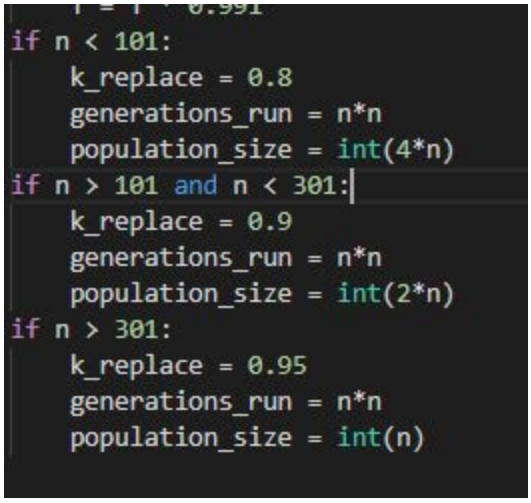
First the input file is run into simulated annealing algorithm

Starting temperature is chosen as (1 / (1 + e^(E/T))) is nearly

As soon as new best path is found, it is appended to our solution list

At the end we have a list ‘solution’ which contains paths in decreasing order of their path length

Then we apply genetic algorithm with appropriate population size, k_replacable



```
if n < 101:
    k_replace = 0.8
    generations_run = n*n
    population_size = int(4*n)
if n > 101 and n < 301:
    k_replace = 0.9
    generations_run = n*n
    population_size = int(2*n)
if n > 301:
    k_replace = 0.95
    generations_run = n*n
    population_size = int(n)
```

‘solution’ is reversed and first p = population_size is considered our 0th generation and genetic algorithm is applied