1. Describe the machine you are running your tests on :

CPU: AMD Ryzen7 1700x @3.7GHz 8Cores16Threads

OS: Windows10 64bit

Memory: 32GB DDR4 @2933MHz

2. Briefly describe any changes you may have made since the previous project part.

a. Branch and Bound algorithm and the comparison with 2-opt algorithm.

b. Rewrite the plot function.

c. 2nd order 2-opt algorithm

3-4 Algorithm Update:

Following table shows the running time and final optimized distance of Branch and Bound algorithm and 2-opt algorithm.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | BnB distance | 2-opt distance | BnB  time cost | 2-opt  time cost |
| Order#10(21 items, end(0,0)) | 38.6 | 39.2 | 0.07s | 0.47s |
| Order#12(21 items, end(0,0)) | 50.2 | 41.8 | 0.07s | 0.54s |
| Order#69(21 items, end(0,0)) | 39.2 | 37.0 | 0.07s | 0.63s |
| Order#12(21 items, end(18,0)) | 46.2 | 42.0 | 0.07s | 0.53s |
| Average | 43.55 | 40 | 0.07s | 0.54s |
|  |  | 8.9%better | 671%better |  |







