Michael Calle – Assignment III Report:

Table of length of tour found and time taken for Nearest Neighbor:

|  |  |  |
| --- | --- | --- |
| Country | Length of Tour | Time Taken in ms |
| Djibouti | 9748.95 | 1 |
| Argentina | 1.05557e+06 | 2790 |
| China | 5.67147e+06 | 255857 |
| Sweden | 1.08313e+06 | 26076 |

Best known stats from the website:

|  |  |  |
| --- | --- | --- |
| Country | Length of Tour | Time Taken |
| Djibouti | 6656 | 240ms |
| Argentina | 837,479 | N/A |
| China | 4566506 | N/A |
| Sweden | 855597 | 84.8 years |

It was interesting to see (as in the case of Djibouti) how the computation time increases in order to find shorter tours. It was also satisfying for me to implement the strategies of sort algorithms from the previous project into this one. My nearest neighbor algorithm doesn’t create a new list to represent the final tour. Rather, it uses std::swap to rearrange the already pre-existing list.

One thing this project helped to solidify in my head is the usage of standard move and swap in practical applications, especially those pertaining to the traversing and sorting of arrays.