

## NearestNeighbor

Country	My Time	Distance	Best Known Tour	Best Known Time
Djibouti (38 Cities)	0 milliseconds	9745	6656	0.24 seconds
Zimbabwe (929 Cities)	27 milliseconds	113926	95345	544.65 seconds
Oman (1,979 Cities)	117 milliseconds	120908	86891	9809.20 seconds
Finland (10,639 Cities)	3245 milliseconds	649600	520,527	520,540 seconds

I learned a lot about how vertexes worked while creating the algorithm for NearestNeighbor. Before, I was struggling with understanding graphs and how graphing algorithms worked. While we didn't implement graphs directly, I learned a lot about them as I was implementing my node class. For instance, I was reviewing the lecture slides and online resources, and through this process, I was finally able to wrap my head around the different graph algorithms we learned in class. Initially, I was surprised at how quickly my algorithm was able to find the tour and distance. When I looked at the times on the website, I expected it to take much longer. However, after reviewing my implementation of NearestNeighbor, it makes sense why my time is significantly less in comparison. The website looks for the most optimal tour regardless of how long it will take. On the other hand, we are looking for an optimal tour within a reasonable amount of time.