Project 4

CS325 — Spring 2015

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by Group 2
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Ideas behind the algorithm

Put down all the ideas and initial pseudocode?
The Traveling Salesman Problem is a very well known NP-Hard problem, and we didn't exactly know how to start this project. We started considering the brute force method, although it is a given that this method will not get us very far. We could just start off by calculating the MST. To even approach to solving the TSP, we needed to get a minimum span tree working. The idea here was that a MST would tell us the closest vertices from a particular vertex. Theoretically, if we had an MST, then we would need to make changes to follow a path, and have it return to the starting vertex.

"Best" Tours

The "best" tours for the three example instances and the time it took to obtain these tours.

Best Tours for the Competition Instances

Are we taking part in the competition? If we win, we will get extra credit. Winky face.

Check List - Should delete this part in the end

- Does your program correctly compute tour lengths for simple cases?
- Does your program read input files and options from the command line?
- Does your program meet the output specifications?
- Did you check that you produce solutions that verify correctly?
- Did you find solutions to the example instances?
- Did you find solutions to the competition instances? Include a summary of these results.
- Does your code compile/run without issue according to your documentation?