CSI - 5137 - AI-Enabled Software Verification and Testing
Assignment - 1 - ReadMe

According to the Assignment 1 requirements, this file explains how our program can be compiled and executed.

We used Python to develop this algorithm and it is designed to be executed from any command line by just using the python command hence there is no need for an IDE.

The file is named ts_solver as mentioned in the requirements and contains multiple utility functions along with simulated annealing logic.

It can be executed from the command line as below:

>> **python tsp_solver.py "dataset_name"**

We executed our algorithm on several datasets that were provided in the Assignment file to ensure it works properly. It was executed on: pr76.tsp, ch150.tsp, a280.tsp, d2103.tsp, vm1748.tsp

All datasets are of DIMENSION: EUC 2D, TYPE: TSP.

After completion of the algorithm execution on any dataset, a "solution.csv" file is created as per the requirements which include the traveled path of the best solution.

In addition, the best solution total distance path and total time taken are printed as well after execution of the program.