Assignment 3c: Traveling Salesman Problem
Description of files

Below are descriptions of the files needed for Assignment 3c: Traveling Salesman Problem.

- `TSP.mod`: An implementation of the mathematical model for the TSP in AMPL.

- `TSP.run`: A `run`-file for AMPL which loads the model implemented in `TSP.mod` and data from your specified problem instance. Do not try to solve problems with more than ≈ 20 cities. The model becomes too large for CPLEX to handle.

- `create_TSP.m`: A `MATLAB` m-file which creates TSP instances of a given size and saves the instance in one AMPL-file and one `MATLAB`-file.

- `plot_TSP.m`: A `MATLAB` m-file which plots a given solution to a given problem instance.

- `AMPLmatrix.m`, `AMPLscalarint.m` and `amplRead.m` are functions needed to be able to write and read AMPL-files in `MATLAB`. See the file `amplRead.m` for reading AMPL-outputs into `MATLAB`.

- `TSP_small.dat`, `TSP_medium.dat`, `TSP_large1.dat`, `TSP_large2.dat` and `TSP_huge.dat` are data files for AMPL with parameters `c` (distances between cities) and `N` (number of cities).

- `TSP_small_matlab.mat`, `TSP_medium_matlab.mat`, `TSP_large1_matlab.mat`, `TSP_large2_matlab.mat` and `TSP_huge_matlab.mat` are data files for `MATLAB` with parameters `c` (distances between cities) and `pos` (matrix with x-positions as first column and y-positions as second column).