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Assignment 3

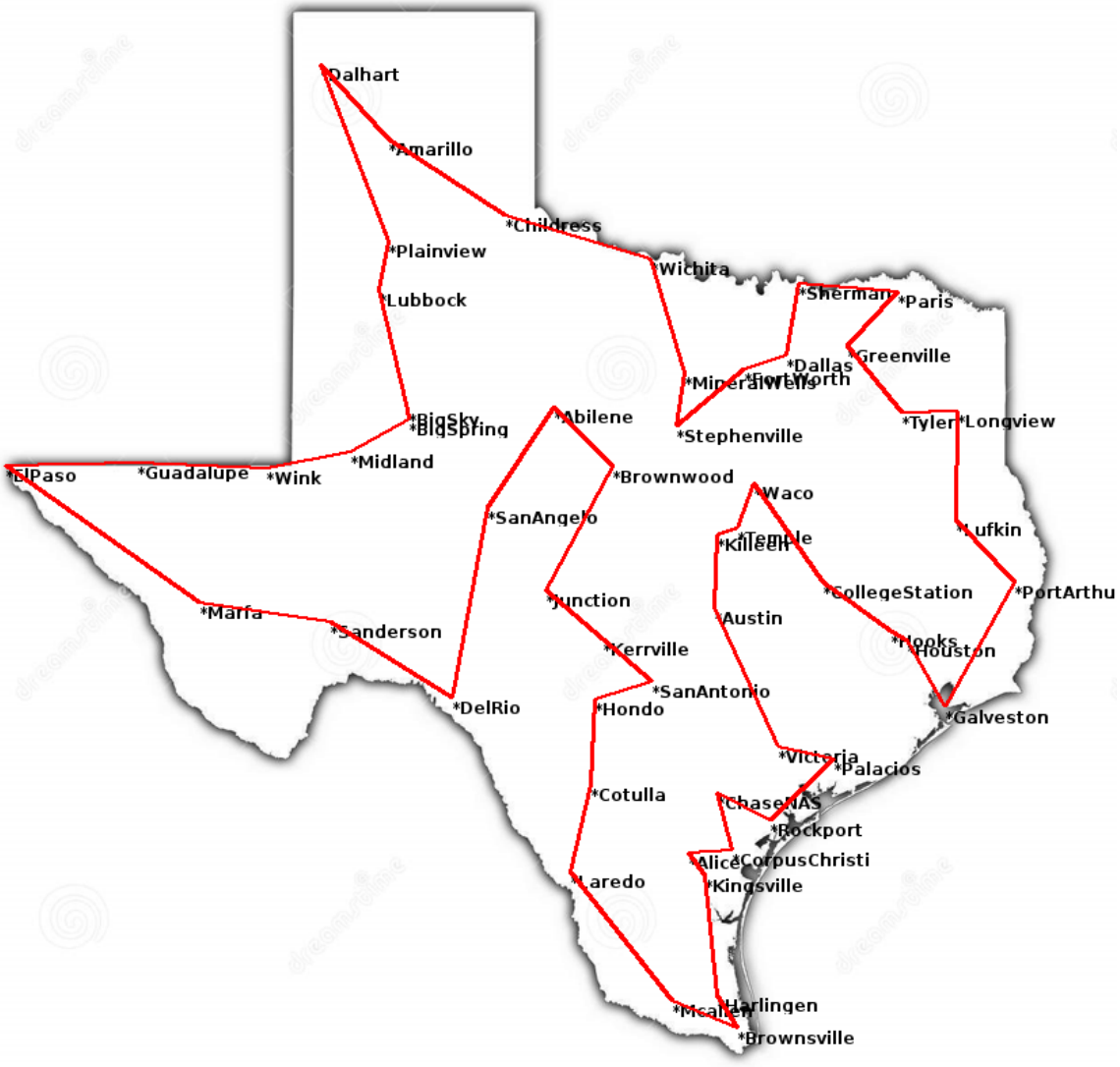
Traveling Salesman problem using Simulated Annealing.

Objective:

The goal of this assignment is to implement Simulated Annealing and use it to solve an instance of the traveling salesman problem.

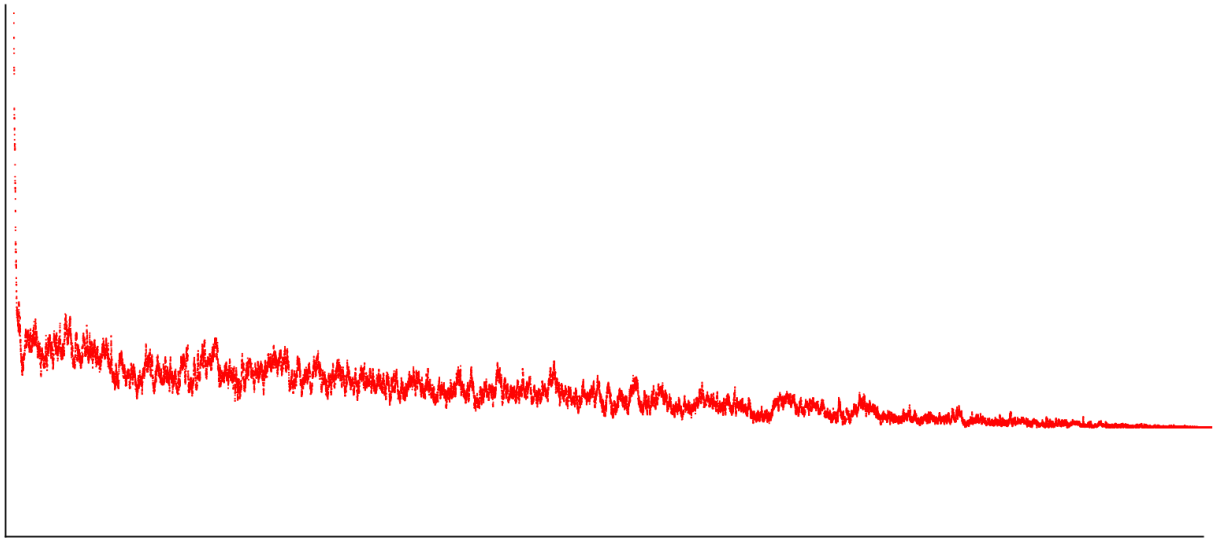
Results:

Best Case found: **Total Tour Distance: 3595.9 mi**



The following path was followed:

[Midland BigSpring BigSky Lubbock Plainview Dalhart Amarillo Childress Wichita MineralWells Stephenville FortWorth Dallas Sherman Paris Greenville Tyler Longview Lufkin PortArthur Galveston Houston Hooks CollegeStation Waco Temple Killeen Austin Victoria Palacios Rockport ChaseNAS CorpusChristi Alice Kingsville Harlingen Brownsville Mcallen Laredo Cotulla Hondo SanAntonio Kerrville Junction Brownwood Abilene SanAngelo DelRio Sanderson Marfa ElPaso Guadalupe Wink]



(Fig : Decrease of tour length over time)

X: Number of iterations

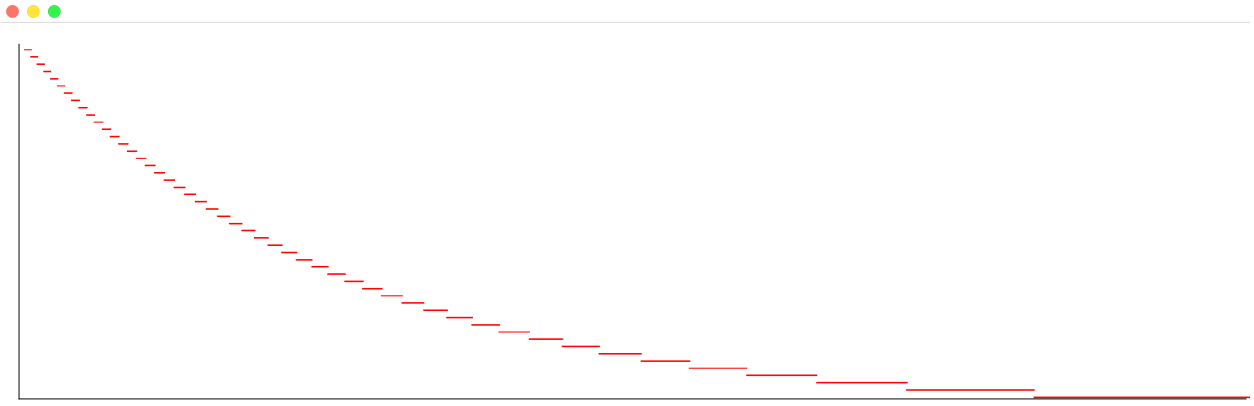
Y: Tour Length

Temperature Function:

Initial Temperature : 60

Decrease rate : Initial Temperature * 0.999999

Number of iterations: Till temperature cools down to 1.



(Fig : Decrease of temperature)

X: Number of iterations

Y: Temperature