

Ethan Nguyen

ethanxn04@csu.fullerton.edu

Project Report for Algorithm 1: Greedy Approach to Hamiltonian Problem

The objective of this assignment is to design an algorithm that returns the index of the preferred starting city. The algorithm must be designed to determine the most optimal starting city for a vehicle to traverse across all of the cities without completely running out of fuel. Within the sampling input for the program, the vehicle is expected to complete a simulated circuit. As the vehicle traverses between these cities, the vehicle will lose fuel and is expected to refill at each stop. The algorithm designed to solve this problem is done using the greedy approach which ensures that the amount of fuel is accurately tracked as the car traverses while repeatedly checking the most optimal starting city.