Title: Rush Hour Traffic Jam Puzzle Solver

The goal of this project is to create a program that utilizes state space problem solving to effectively solve the rush hour traffic jam puzzle. Rush hour is a classic puzzle game where the player is tasked with getting a car out of a gridlocked traffic jam by sliding other vehicles out of its way. This problem can be modeled as a state space problem, where each state of the puzzle represents a unique configuration of vehicles on the board. The program will use a search algorithm to traverse the state space and find a solution that moves the red car from its starting position to its final position in the minimum number of moves. The program will also take into consideration the constraints of the puzzle, such as the size of the board, the number of cars and their orientation, and the movement rules of each car. The program will allow human users to create puzzles that need to be solved. The program will be tested on a variety of rush hour puzzles to evaluate its performance and efficiency. The ultimate goal is to create a program that can solve rush hour puzzles in a fast and efficient manner.