SMAI: Assignment 1

Submission due: Monday September 4, 1000 hrs.

Choose a new problem that can be posed as a state space search problem. Design a domain representation for the state to facilitate defining the following:

- a MoveGen or a neighbourhood function to take a given state as an argument and return the set of neighbouring states. Eliminate states that do not respect the domain constraints. For example, the lion should not be left alone with the goat in the MGLC problem.
- a GoalTest function that accepts a state as input and returns *true* if the state is a goal state, and *false* otherwise.

Think about how a user can be allowed to specify the start state. For example, a state in an instance of a water jug problem with the jug sizes and contents being user defined. Also, how can a user specify the goal state. For example, how much water is to be measured.

Credit will be assigned for choosing a new and interesting domain. Do not choose examples used in the class or commonly found in text books.