

Report

- fluents used in the project and what they mean and a description of their arguments.
 - `currentSituation(agent_loc(X1,Y1), ships_loc(L1), Passengers1, result(Action, agent_loc(X,Y), ships_loc(L), Passengers)):-`
 - Description: Describes the current state of the world
 - Arguments:
 - X, Y: The current location of the agent
 - L: The current ships
 - Passengers: The current number of passengers with the CG
 - Action: The action to be executed
 - X1, Y1: The location of the agent after executing the action
 - L: The ships after executing the action
 - Passengers: The number of passengers with the CG after executing the action
 - `step("Step", X, Y, X1, Y1, P, Pnew, Ships, ShipsNew) :-`
 - Description: executes one of the 6 steps "up, down, left, right, pickup and drop"
 - Arguments:
 - X, Y: The current location of the agent
 - Ships: The current ships
 - P: The current number of passengers with the CG
 - Step: one of the possible 6 steps
 - X1, Y1: The location of the agent after executing the step
 - ShipsNew: The ships after executing the step
 - Pnew: The number of passengers with the CG after executing the step
 - `goalTest(X,Y,ShipsNew,Pnew):-`
 - Description: checks if the arguments of a specific state pass the goal test.
 - Arguments:
 - X, Y: The current location of the agent
 - ShipsNew: The current ships
 - Pnew: The current number of passengers with the CG
 - `path(X, Y, Pnew, ShipsNew, Actions, Result)`
 - Description: gets the path to the goal state
 - Arguments:
 - X, Y: The current location of the agent
 - ShipsNew: The current ships
 - Pnew: The current number of passengers with the CG
 - Actions: the actions that took us to the goal
 - Result: the final sequence of actions that took us to the goal
 - `goal(S)`
 - Description: gets the path to the goal state or checks whether a given path leads to a goal state
 - Arguments:

- S: the given / resulting path
- an explanation of the successor state axioms you implemented:
 - currentSituation: describes the state of the world as following:
 - The current state of the world that happened as a result of executing a specific action on the previous state of the world.
- some test cases, their outputs and how long it takes to run:
 - 1st KB:
 - goal(result(drop, result(up, result(left, result(pickup, result(right, result(down, result(drop, result(left, result(pickup, result(right, result(down, s0))))))))), Runtime).
Runtime = 1.406
 - goal(result(drop, result(up, result(left, result(pickup, result(down, result(right, result(drop, result(left, result(pickup, result(down, result(right, s0))))))))), Runtime).
Runtime = 1.641