Home
Announcements
Discussion and Private Messages
Resources
Mailtool
Assignments
Gradebook
Drop Box
Help

ICS-361-001 [MAN.78127.FA15]: Assignments

Assignment - In progress

Complete the form, then choose the appropriate button at the bottom.

Title	Assignment 6
Due	Dec 10, 2015 11:55 pm
Status	Not Started
Grade Scale	Points (max 90.0)

Instructions

ICS 361 Assignment 6: Code Switching (90 points, plus potential for 10 bonus points)

Due: Thursday, December 10.

Rules: Cite any sources you use, and write your own comments and error messages. Do not use any built-in predicates, aside from those presented in the lecture slides.

This assignment is optional. If you complete it, your score for it will replace the lowest assignment score you have received so far.

A. Assignment 2 Flashback (30 points)

Remember Assignment 2? Please write code that will use Breadth First Search to solve the 15-tile puzzle, in Prolog. Show that it works on an easy starting state and a difficult starting state. bfs/2 should take a start state as its first argument, and return the first solution path found as its second argument.

Note that you might find bagof/3 useful - or you might not!

B. Assignment 3 Flashback (30 points)

Remember Assignment 3? Please write code that will use A* to solve the tile puzzle, in Prolog, using the Manhattan Distance heuristic. Show that it works on an easy starting state and a difficult starting state. astar/2 should take a start state as its first argument, and return the first solution path found as its second argument.

C. Assignment 4 Flashback (30 points)

Remember Assignment 4? Please write code that will solve Situation #3 (below), in LISP.

- You have eight colored balls: 1 black, 2 white, 2 red and 3 green.
- The balls in positions 2 and 3 are not green.<
- The balls in positions 4 and 8 are the same color.
- The balls in positions 1 and 7 are of different colors.
- There is a green ball to the left of every red ball.
- A white ball is neither first nor last.
- The balls in positions 6 and 7 are not red.

D. Bonus Points (10 points)

What do the above exercises tell you about the strengths and weaknesses of LISP and Prolog, with regards to representation and search? Please be specific, and write in full grammatical sentences.

What to submit