

Homework Assignment 1

(100 points)

Assigned Date: Wednesday, September 22, 2010

Due Date: 4:00 PM Wednesday, September 29, 2010

Educational Goal

Become familiar with uninformed search strategies.

Requirements

Implement the Romania example (Lecture “Solving Problem by Searching”, slide 11). Goal State is city Bucharest.

- (40%) Uninformed Search: Implement breadth-first search and depth-first search, respectively. The program should be able to avoid repeated state in order to find the goal state.
- (20%) Based on your experimental results, write a report in minimum 300 words to discuss the strength and weakness of those 2 search strategies.

Submission Requirements

1. Follow the language requirements for programming assignments posted at http://www.cs.umb.edu/~ding/classes/470_670/student.htm
2. Your program should be well-documented. Variable names and function names should be self-descriptive. Major functions should be explained clearly in comments. The program outputs should be presented in a clear sequence.
3. The outputs of your program must be clear and understandable. Submit the outputs of your program in softcopy and hard copy.
4. Turn in the paper copy and soft copy of all the files of this assignment. Submit a single zipped file of all the files of this assignment through your UMassOnline account at <http://boston.umassonline.net/index.cfm>. Submit the paper copy along with the cover page in class. Paper copy should be bound firmly together as one pack (for example, staple, but not limited to, at the left corner). 5 points will be deducted for unbounded homework.
5. Name your file with AI_ lastname_ firstname_ hw1. For example, student John Smith should name his file as AI_Smith_John_hw1.zip.
6. No hard copies or soft copies results in 0 points.