Assignment 1

(COMP 3608 - Intelligent Systems)

Date Available: Monday, February 11, 2019
Due Date: 11.50 PM, Monday, February 25, 2019
Total Mark: 100 marks (weighted 7% out of 100%)

1. [60 marks] Use the algorithms and examples presented in Topic 1 to implement the uninformed search methods using Prolog programming language.
a. [20 marks] DFS (Depth-First Search)
b. [20 marks] BFS (Breadth-First Search)
c. [20 marks] UCS (Uniform-Cost Search)

2. [40 marks] Use the algorithms and examples presented in Topic 2 to implement the informed search methods using Python programming language.
a. [20 marks] BestFS (Best-First Search)
b. [20 marks] AstarS (A* Search)

Assignment Requirements and Marking Scheme

• Your programs should display the contents of **`open`** list and **`closed`** list for each iteration while executing.
• For each of the search algorithms above,
- the program runs correctly and the solution path is displayed [20 marks]
- the program runs correctly but the solution path is not shown [15 marks]

Submission

1. At the top of your program, you should include the following information.

```
/*
Full Name:
Student ID:
Email:
Course Code:
*/
```

2. Submit your source programs files (i.e., **`dfs.pl`**, **`bfs.pl`**, **`ucs.pl`**, **`bestfs.py`**, **`astar.py`**) zipped into the file named **`A1_StudentID.zip`** (e.g., **`A1_809000437.zip`**) to Mr. Inzamam via the email inzamam.rahaman@outlook.com.
3. Late submission penalty: 10% per day, up to five days

End of Assignment 1