

CSE 415 Assignment 1 Report: Problem Formulation and Basic Search

Your Name(s) Here

Autumn 2026

Student name(s): John Doe (or John Doe and Jane Smith)

Assignment number: A1

Main topic(s) covered: Problem formulation; blind search (DFS and BFS)

Date/Time: (e.g., Oct. 10/8:30 PM)

After each paragraph of instructions, write a paragraph or more of your own. Put your text inside `\ans{...}` so that it appears in a different color from the instructions.

1 Step 4 (c)

Explain what is going on in the 4th line of the `can_move` method in `HumansRobotsFerry.py` that contains “return False”.

Put your text here.

2 Step 8

2.1 Results table

Enter your results in the table below. The paths are not required in the table for the entries marked “skip.” (However, the corresponding Path Length, Nodes Expanded, and Max OPEN entries are still required.) Paths too long to fit in the table go in Section 2.2.

Problem and Algorithm	Path Found	Path length	#Nodes Expanded	Max OPEN length
Humans, Robots and Ferry / DFS	(skip)			
Humans, Robots and Ferry / BFS				
Farmer, Fox, Chicken and Grain / DFS				
Farmer, Fox, Chicken and Grain / BFS				
4-Disk Towers of Hanoi / DFS	(skip)			
4-Disk Towers of Hanoi / BFS				

2.2 Path details

Paths found (if not shown in the table). Copy the state sequences obtained from the search algorithm on the requested problems.

- HRF / BFS:
- FFCG / DFS:
- FFCG / BFS:
- 4-Disk TOH / BFS:

2.3 Explanations of certain differences, using Towers of Hanoi

- (i) Why is the maximum length of the OPEN list greater for one algorithm than for the other?
[Put your text here.](#)
- (ii) Why is the solution path length different for one algorithm from that of the other?
[Put your text here.](#)

3 Goals

The intentions guiding this assignment are articulated here, including what was hoped to be explored, clarified, or accomplished, and why these goals were considered meaningful at this stage of learning.

[Put your text here.](#)

4 Activities

The work undertaken is described, including key actions, code development, and resources consulted. Attention is given to how these activities unfolded and how they contributed to progress or raised new questions.

[Put your text here.](#)

5 Challenges & Solutions

Points of difficulty are examined in detail (e.g., an off-by-one runtime error), including how they were recognized, how understanding evolved, and what strategies or insights led to partial or full resolution.

[Put your text here.](#)

6 Reflections/Learnings

Emerging understandings are articulated, including concepts that have become clearer, connections that have been recognized, and any shifts in perspective or approach that have occurred.

[Put your text here.](#)

7 Next Steps

Remaining uncertainties and open questions are identified, along with thoughtful consideration of what should be explored next and how future efforts might be adjusted to support deeper understanding.

[Put your text here.](#)

8 AI Use

8.1 Models and tools

List the model(s) and tools you used for agentic programming (e.g., model name and version, the coding agent or IDE plugin, and any important settings such as reasoning effort).

[Put your text here.](#)

8.2 Prompt log

For the record: Provide either the full prompting conversation for your AI-assisted coding on this assignment (if the conversation is not longer than 50K bytes) or just your own prompts if the full conversation is longer than that (not including code or plan files written to your file system by the agent). If your own prompts involve prompting files (e.g., `claude.md`), include them if they are short (under 5K bytes each); otherwise include a mention of what they contain. This section should not be more than 100K bytes in total. (Tip: plain text can be pasted between `\begin{verbatim}` and `\end{verbatim}`.)

[Put your text here.](#)

9 Partnership Retrospective

9.1 Partnership?

Did you work in a partnership? (yes or no). If so, who were the partners?

[Put your text here.](#)

9.2 Collaboration

Also if so, how did you divide the work of this assignment?

[Put your text here.](#)

9.3 Newness of the collaboration

If this was a new sort of experience for either of you, please mention that, and in what way(s) it felt new.

[Put your text here.](#)