Search-Greedy Best First Search

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Computer Science and Engineering
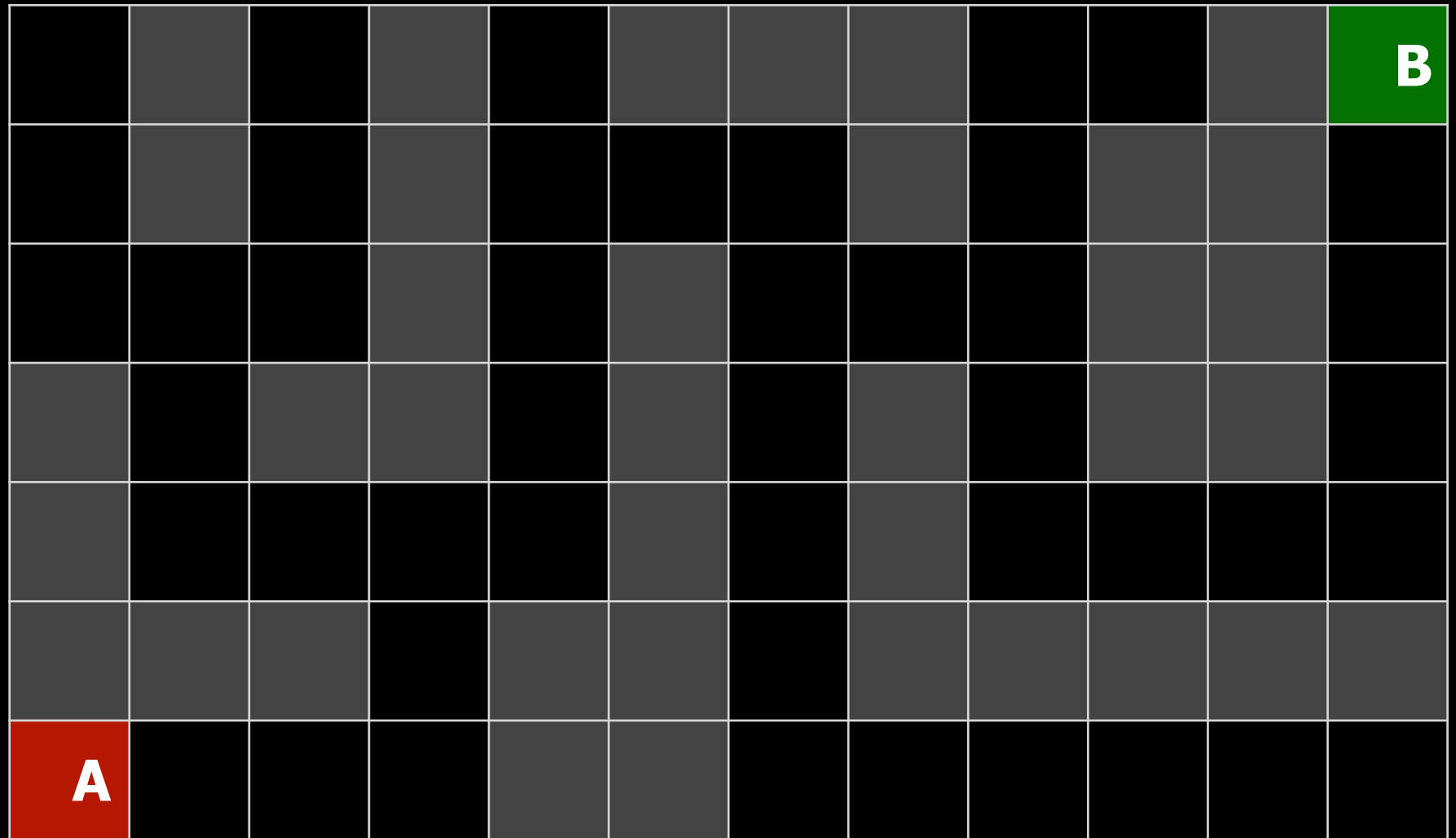
informed search

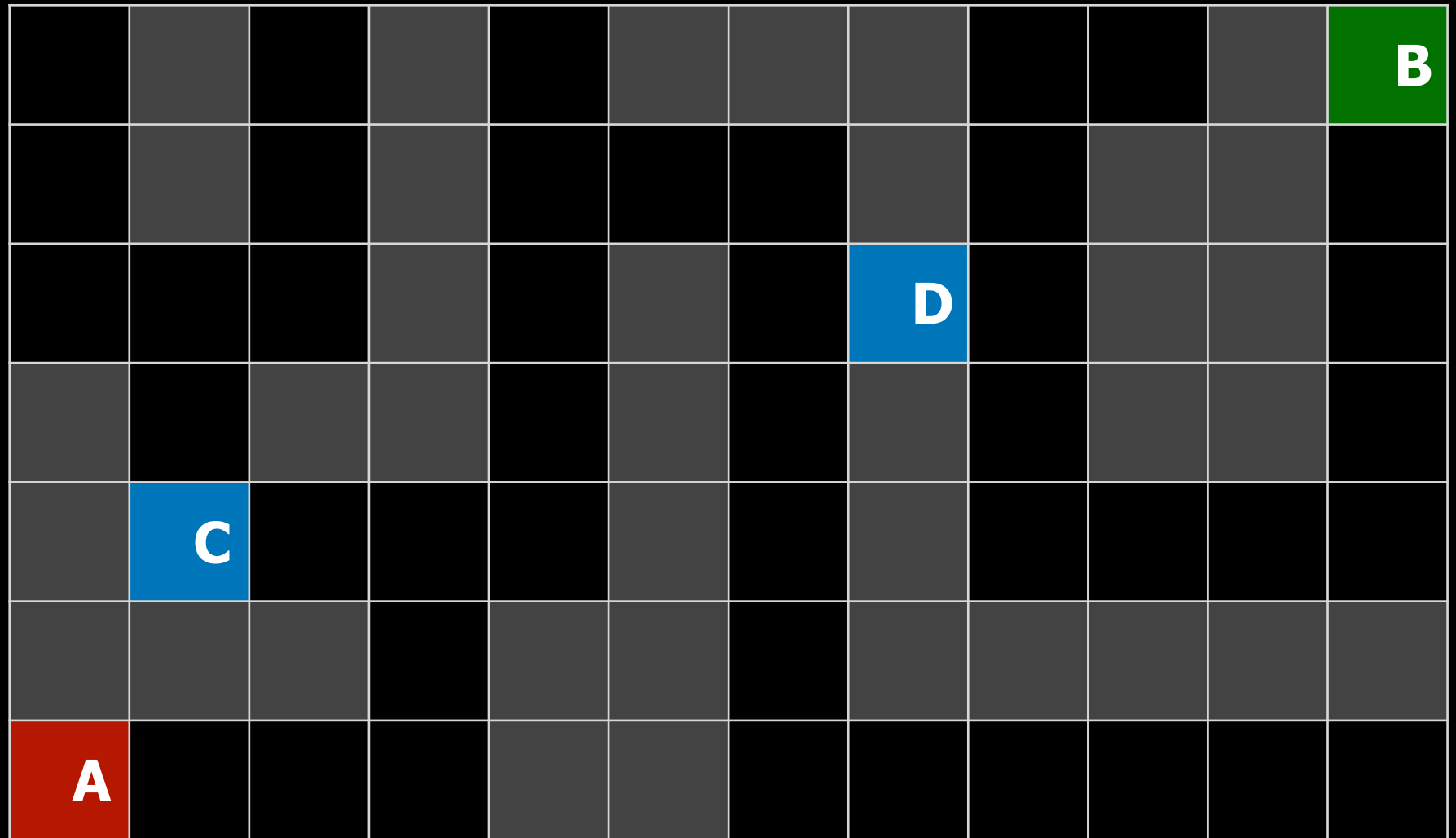search strategy that uses problem-specific knowledge to find solutions more efficiently

greedy best-first search

search algorithm that expands the node that is closest to the goal, as estimated by a heuristic function $h(n)$
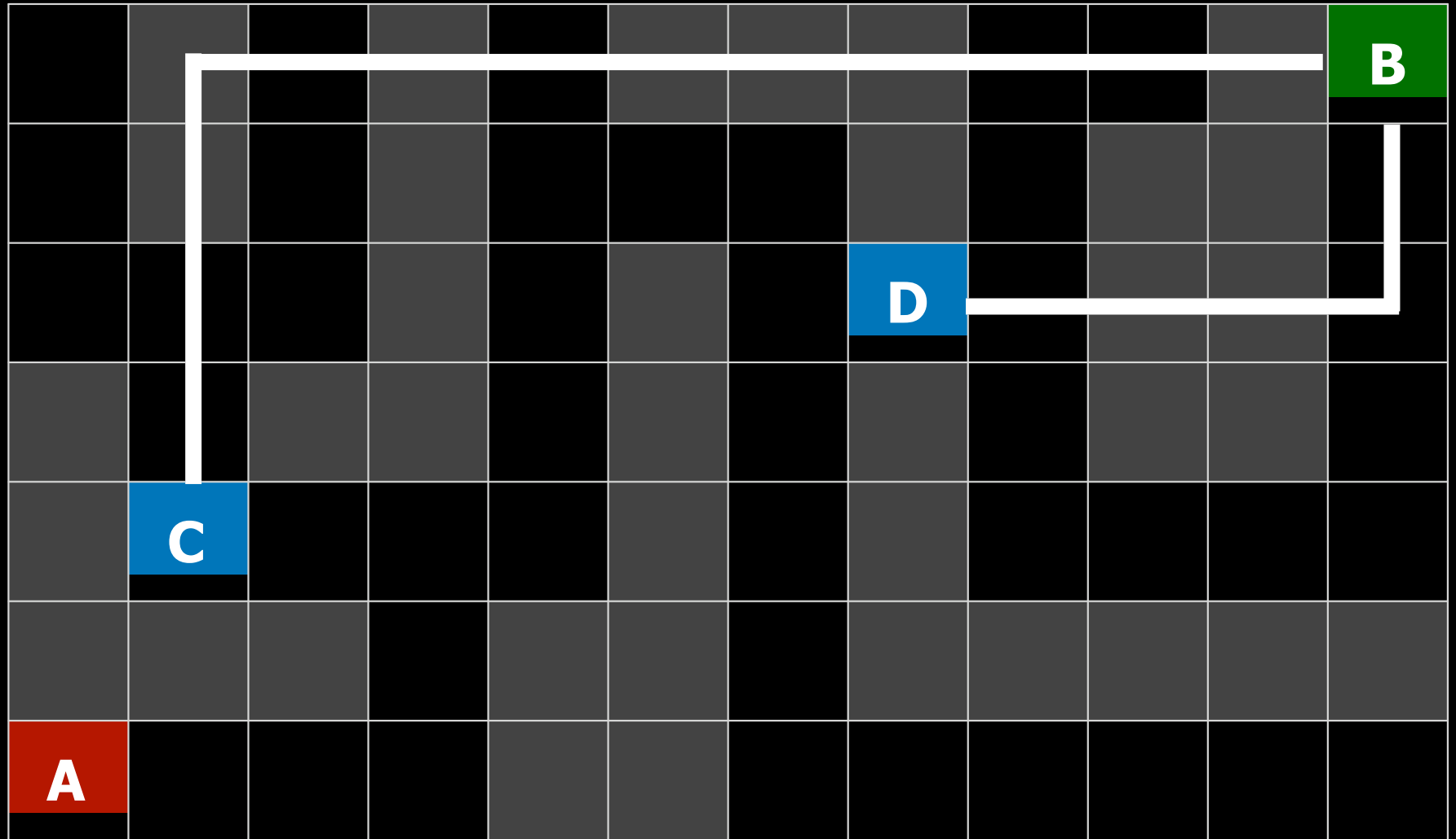
Heuristic function?

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Heuristic function? Manhattan distance.

Greedy Best-First Search

11		9		7				3	2		**B**
12		10		8	7	6		4			1
13	12	11		9		7	6	5			2
	13			10		8		6			3
	14	13	12	11		9		7	6	5	4
			13			10					
A	16	15	14			11	10	9	8	7	6

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	10	9	8	7	6	5	4	3	2	1	B
	11										1
	12		10	9	8	7	6	5	4		2
	13		11						5		3
	14	13	12		10	9	8	7	6		4
			13		11						5
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Greedy Best-First Search

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Code

https://github.com/aruntakhur/SitareUniversity/blob/main/GreedyBFS_AI_2025.ipynb

References

Book: Artificial Intelligence A Modern Approach (3rd Edition)

Harvard CS50's Artificial Intelligence with Python