

TDT4136 – INTRODUCTION TO ARTIFICIAL INTELLIGENCE

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## Assignment no. 2

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September, 2023

## Part 1

I wrote the code based on the pseudocode for the algorithm on Geeks for Geeks [1].

## Task 1

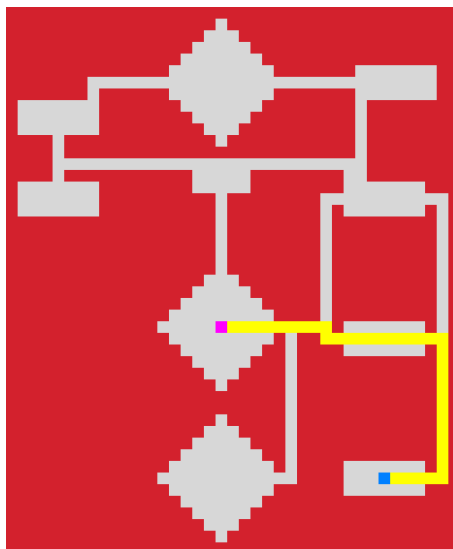


Figure 1: Shortest path as found by the A\* algorithm from the starting point (pink) to the goal (blue).

## Task 2

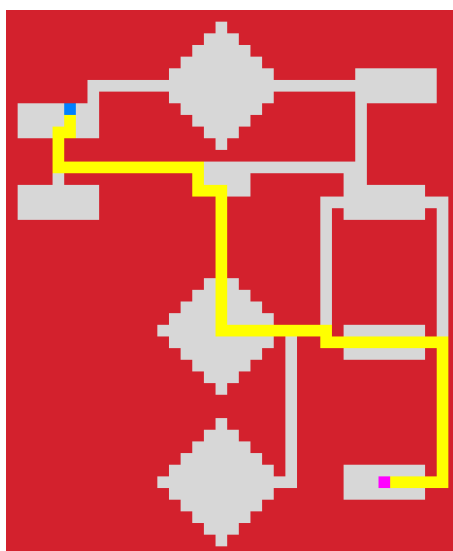


Figure 2: Shortest path as found by the A\* algorithm from the starting point (pink) to the goal (blue).

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## Part 2

### Task 3

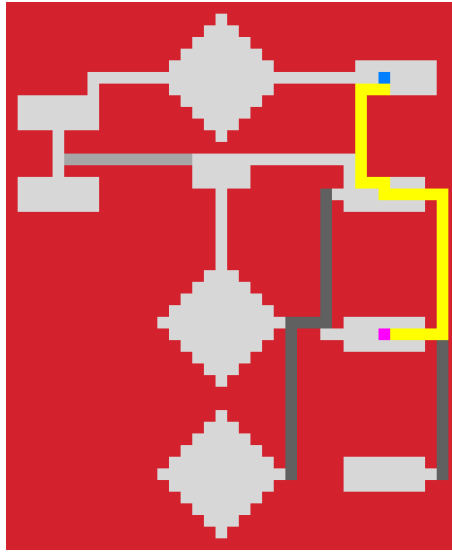


Figure 3: Shortest path as found by the A\* algorithm from the starting point (pink) to the goal (blue).

### Task 4

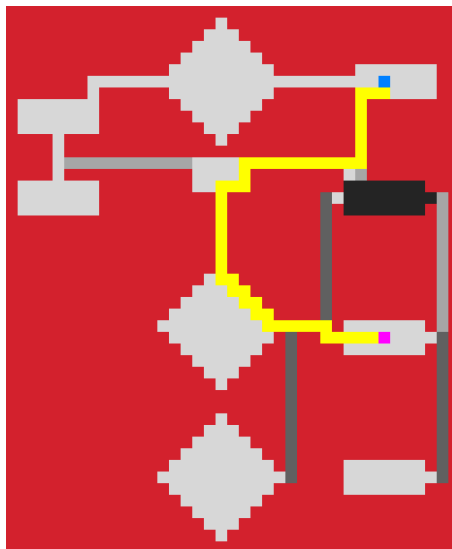


Figure 4: Shortest path as found by the A\* algorithm from the starting point (pink) to the goal (blue).

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## Part 3

### Task 5

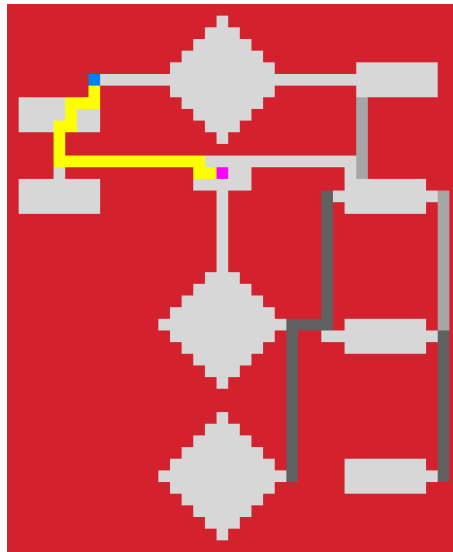


Figure 5: Shortest path as found by the A\* algorithm from the starting point (pink) to the moving goal (blue).

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## References

- [1] R. Belwariar. 'A\* search algorithm'. (2023), [Online]. Available: <https://www.geeksforgeeks.org/a-search-algorithm/> (visited on 14th Sep. 2023).