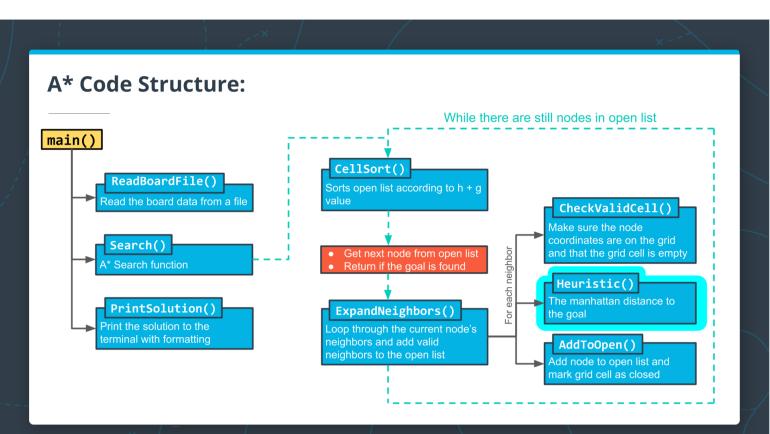
Lesson 3: END FEEDBACK

A\* Search

## Writing the A\* Heuristic



https://video.udacity-data.com/topher/2019/February/5c762754\_l2-writing-the-a-heuristic/l2-writing-the-a-heuristic\_720p.mp4

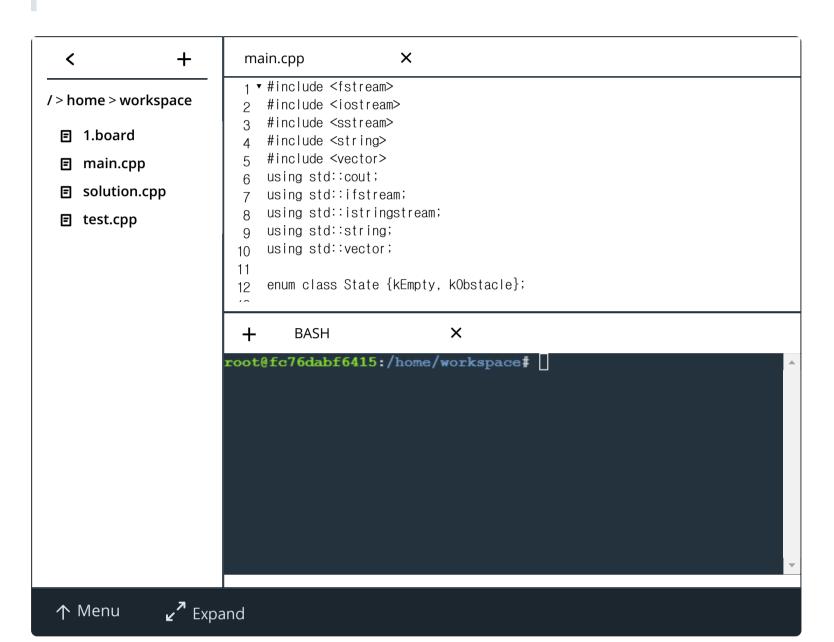


Writing the Heuristic() function

In this quiz, you will write a Heuristic function that will be used to guide the A\* search. In general, any admissible function can be used for the heuristic, but for this project, you will write one that takes a pair of 2D coordinates on the grid and returns the Manhattan Distance from one coordinate to the other.

## To Complete This Exercise:

1. Write an <code>int Heuristic</code> function which takes four <code>int</code> s as arguments. The <code>int</code> s represent two pairs of 2D coordinates:  $(x_1,y_1,x_2,y_2)$ . The function should return an <code>int</code> which is the Manhattan Distance from one coordinate to the other:  $|x_2-x_1|+|y_2-y_1|$ .



16. Constants17. CODE: Expand the A\* Search to ...

SEARCH

RESOURCES

CONCEPTS

☑ 3. Maze

**⊻** 4. Maze 2

7. Lesson Code Structure

8. CODE: Starting A\* Search

9. CODE: Writing the A\* Heuristic

11. CODE: Adding Nodes to the Ope...

12. CODE: Initialize the Open Vector

13. CODE: Create a Comparison Fun...

14. CODE: Write a While Loop for the...

15. CODE: Check for Valid Neighbors

10. Pass by Reference in C++

2. Motion Planning

5. Coding the Shortest Path Algorithm

19. CODE: Adding a Start and End to ...

20. Congratulations!!

☑ 18. Arrays

21. How to Become More Proficient ...