Create a Comparison Function



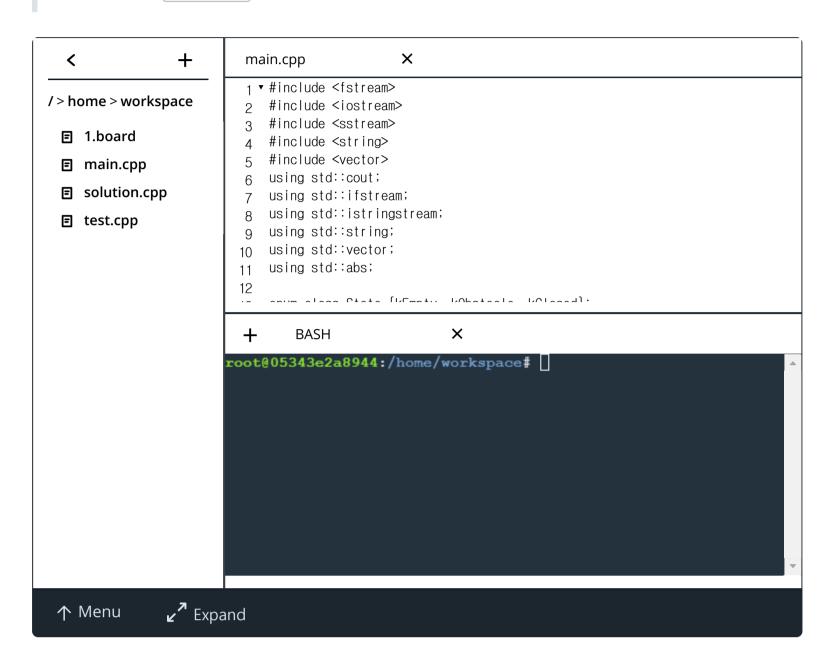
https://video.udacity-data.com/topher/2019/ February/5c762715_l2-create-a-comparison-function/l2create-a-comparison-function_720p.mp4

Before you can use the vector of open nodes to expand the A* search, you will first need to be able to sort the vector. Since the vector contains nodes $\{x, y, g, h\}$, and there is no standard library function to sort these types of vectors, you will begin by writing a function which compares two nodes to determine their order.

This function is a helper function for the CellSort() function you will write later, so it is not shown on the code structure diagram.

To Complete This Exercise:

Write a function bool Compare that accepts two nodes of type vector < int > as arguments. It should return a boolean true if the f-value of the first argument is greater than the f-value of the second, and it should return false otherwise. Recall that the f-value is the sum of the cost and heuristic: f = g + h.



☑ 20. Congratulations!!

16. Constants

✓ 18. Arrays

Lesson 3:

A* Search

2. Motion Planning

5. Coding the Shortest Path Algorithm

SEARCH

RESOURCES

CONCEPTS

☑ 3. Maze

⊻ 4. Maze 2

▼ 7. Lesson Code Structure

8. CODE: Starting A* Search

☑ 9. CODE: Writing the A* Heuristic

10. Pass by Reference in C++

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

12. CODE: Initialize the Open Vector

13. CODE: Create a Comparison Fu...

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

15. CODE: Check for Valid Neighbors

☑ 17. CODE: Expand the A* Search to ...

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

21. How to Become More Proficient ...