COMP 476
Assignment #2
Due March 6th 2022, 23:55
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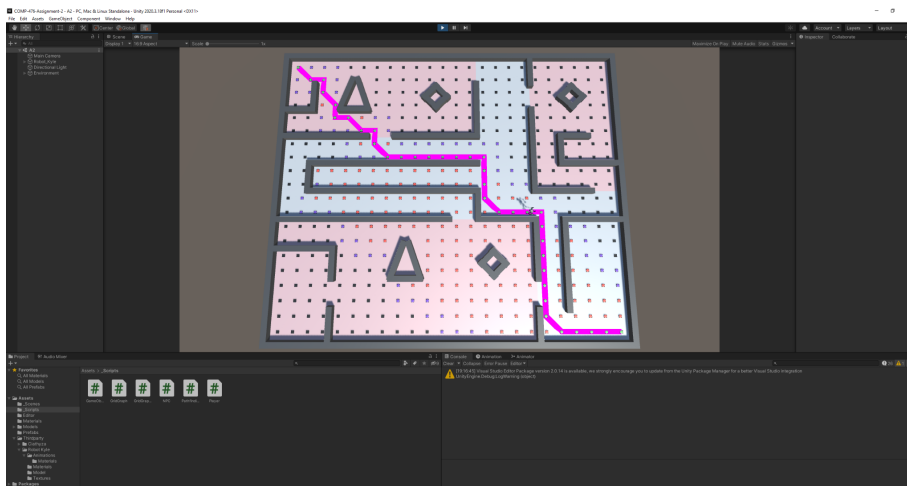
Write-up Report

Here are the results of the fills, as requested. Note that only the diagonal distance heuristic (manhattan distance with a twist) was implemented for this assignment. See below:
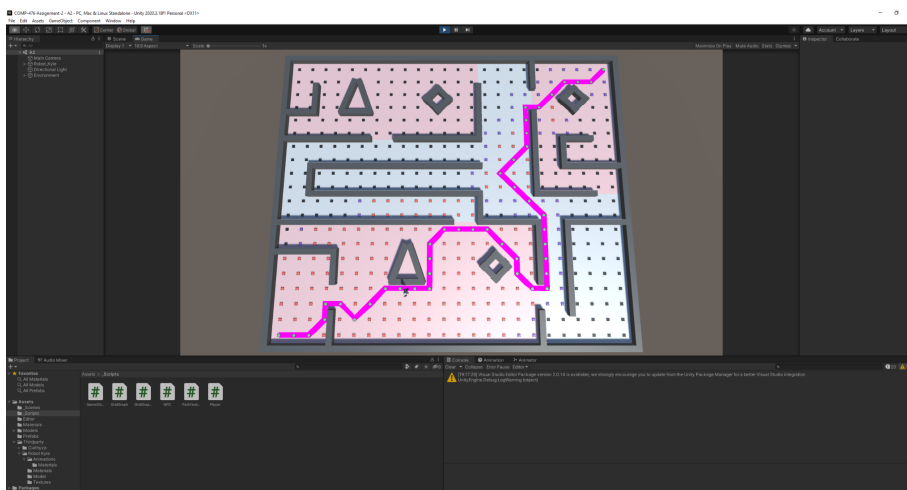Green -> the final path from start to goal.
Red -> closed list node
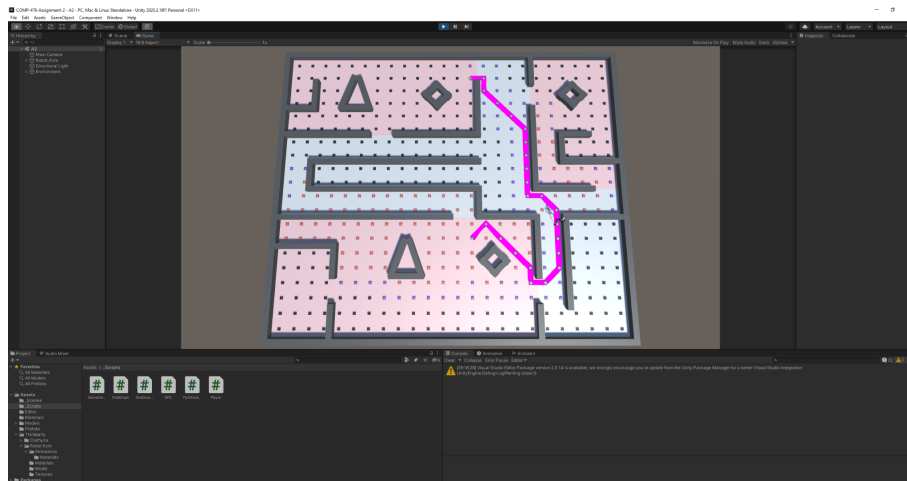Blue -> frontier node
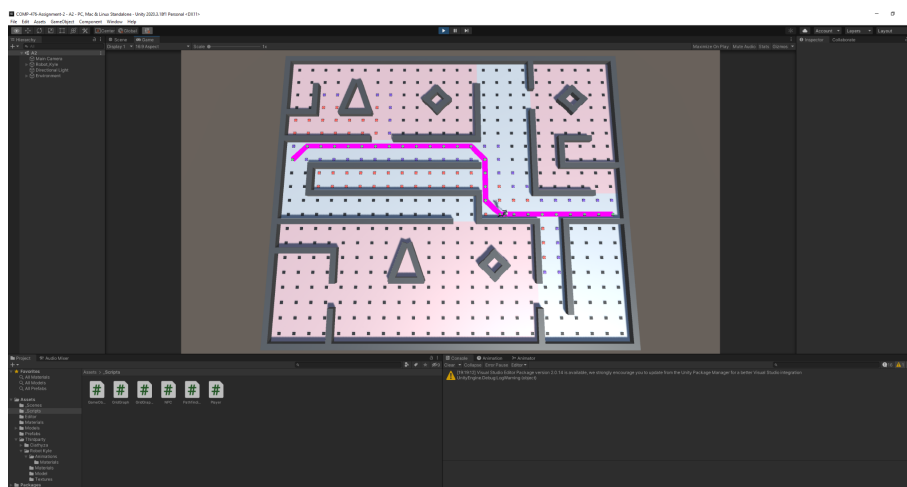Black -> unexplored node
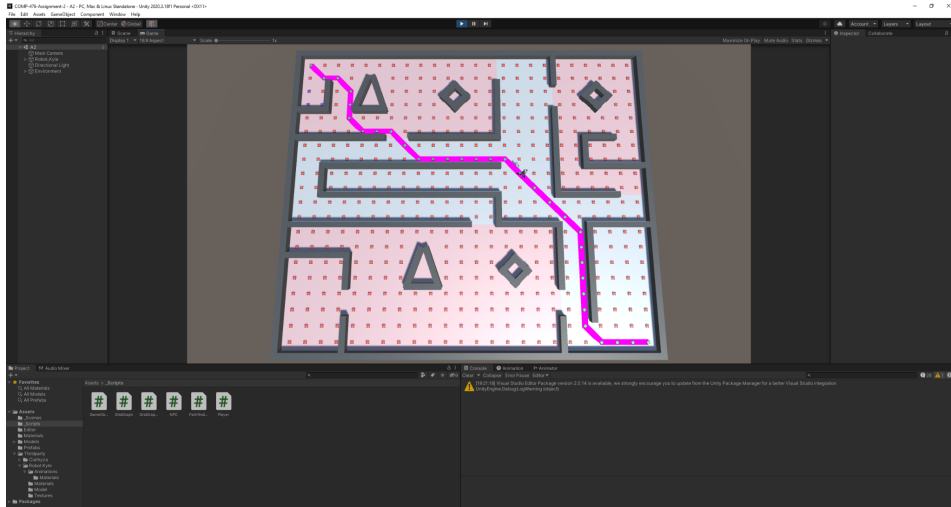

^ Diagonal fill, bottom right to top left.

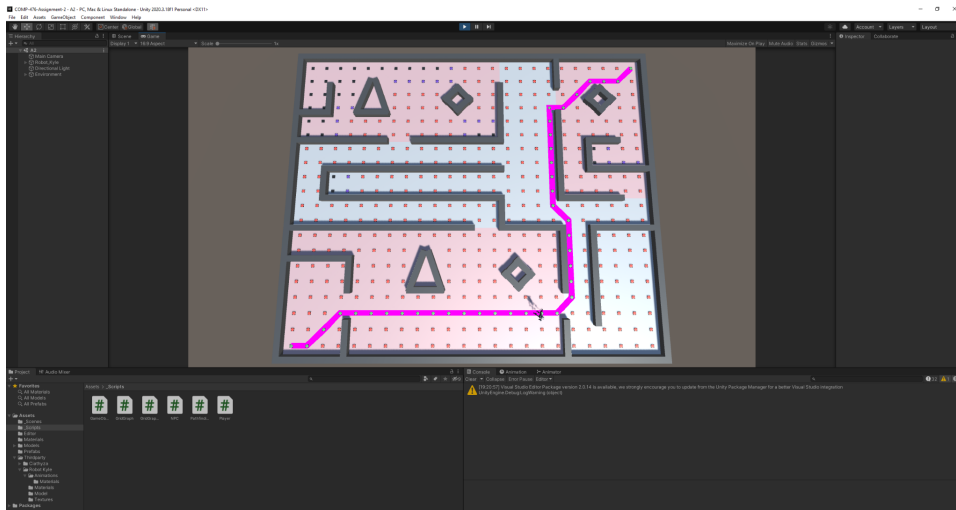^ Diagonal fill, bottom left to top right.

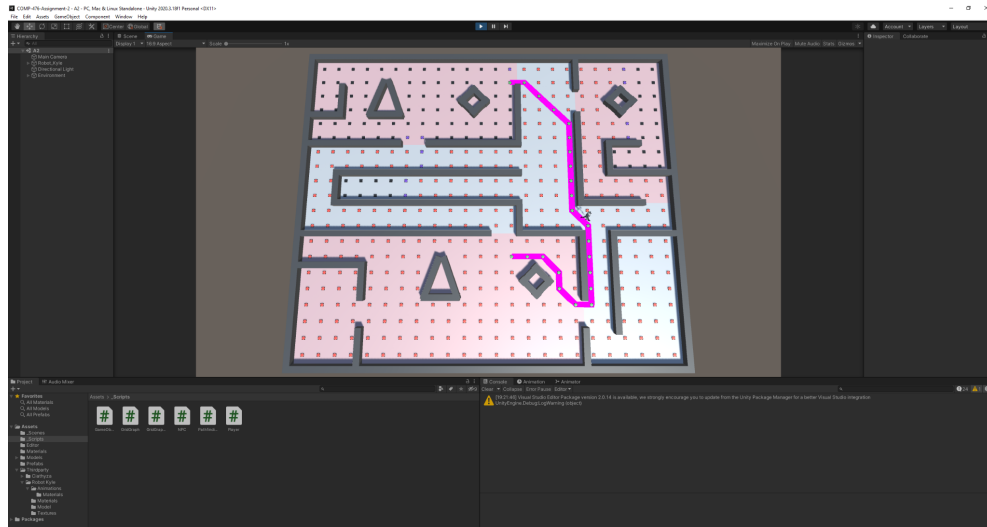^ Diagonal fill, right corridor.
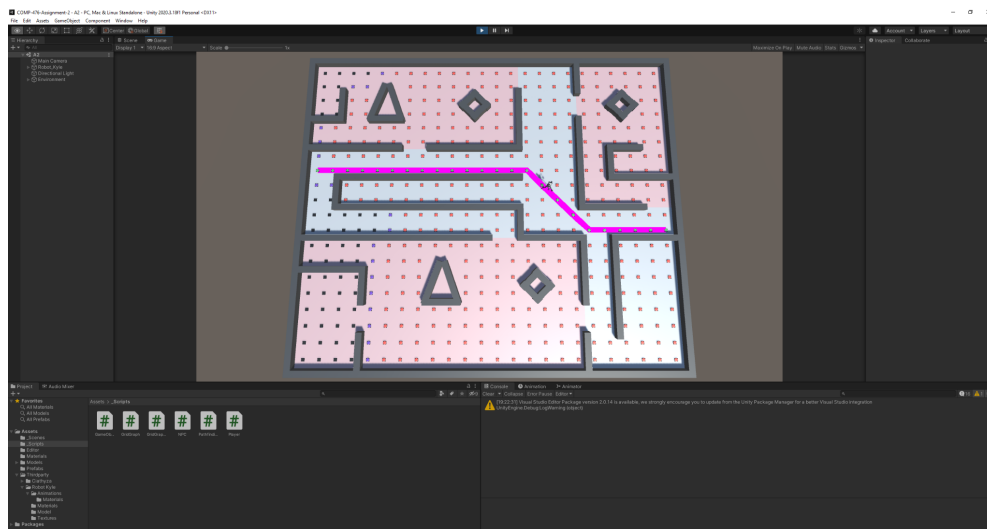

^ Diagonal fill, middle corridor.

^ No heuristic fill, bottom right to top left.

^ No heuristic fill, bottom left to top right.

^ No heuristic fill, right corridor.

^ No heuristic fill, middle corridor.

Observations
As predicted, the fills with the heuristic were much more focused/contained towards the general direction of the solution. However, the paths created with this heuristic were less optimal than the ones created by the no-heuristic option in terms of distance to travel.

The no-heuristic option explores nearly the entire board every time, which is the least optimal solution in terms of processing time and power.