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**Question 7**

This question of solving a maze is the one i had most trouble with. Initially in my solve maze function i had set up each if statement to check north, east, west and south direction and once you were inside a direction you would enter that loop and keep checking in that direction. This didn’t work because i realized after when i pop back to the previous direction i would have changed the coordinates that we were in the maze. So this required me to use various sources such as stackoverflow, c++.com and geeksforgeeks so that i can understand how to move in a maze without altering coordinates in a maze. This is when i came across using a bool function to test if we have already been at a spot in the maze or not. If we have been at a spot in the maze and we cant move in any direction after that then we set that coordinate in the maze equal to true meaning we have visited that spot and to not go in that direction. When we pop we can go back to the previous direction and check the other options besides the one we just set to visited(true). This proved to be more useful. The way we were able to move is by using a stack of nodes. Each node had a direction variable set to 0 and we would increment the direction integer each loop. Once we found a direction that we could move in the maze we would save that positions coordinates and direction and then move onto to the next coordinate after that with our direction being set to 0 again. When we popped off a node it meant no direction found so we go back to the previous nodes coordinates and direction and start off from their.