Attiano purpura-pontoniere

504-847-318

Cs 32 hw2

Problem 2) First 12 coordinates popped off stack:

1. (6,4)
2. (6,3)
3. (6,5)
4. (7,5)
5. (8,5)
6. (8,6)
7. (8,7)
8. (8,8)
9. (7,8)
10. (6,6)
11. (5,4)
12. (4,4)

Problem 4) First 12 coordinates popped off queue:

1. (6,4)
2. (5,4)
3. (6,5)
4. (6,3)
5. (4,4)
6. (6,6)
7. (7,5)
8. (3,4)
9. (4,5)
10. (8,5)
11. (2,4)
12. (4,6)

The two algorithms differ in the order they process data. The stack algorithm looked at the most recently input direction. In essence the algorithm seeked out cells west, south, east,north, in that order of precedence, and if a direction wasn't found it took the next lower precedence direction. As a stack it took the data most recently pushed onto the stack and manipulated it trying to find a path out.

The queue algorithm looked at the input direction with the greatest seniority. Keeping in line with the earlier discussion of order of precedence, the queue seemingly has an inverse order: north>east>south>west with north being the highest order. That is the order that data is input and removed, whereas in a stack data is being input in the same order, but output in the opposite.