Joe Canero CSC260 Dr. Pulimood Final Exam

## **Question 4—Memory Map**

This grid represents the two-dimensional array board, and each grid location corresponds to a position in the array. The two-dimensional array board is an array of Piece pointers. The Piece pointers are able to point to any of Piece's derived classes, like President, TeamLeader, Developer, etc., thus supporting polymorphism and enabling board to fully represent a chessboard.

## KEY

g – GREEN

y – YELLOW

M - Manager

S – Supervisor

T - TeamLeader

C – CEO

P - President

D – Developer

0,0 → gM	0,1 → gS	0,2 → gT	0,3 → gC	0,4 → gP	0,5 → gT	0,6 → gS	0,7 → gM
1,0 → gD	1,1 → gD	1,2 → gD	1,3 → gD	1,4 → gD	1,5 → gD	1,6 → gD	1,7 → gD
2,0 → NULL	2,1 → NULL	2,2 → NULL	2,3 → NULL	2,4 → NULL	2,5 → NULL	2,6 → NULL	2,7 → NULL
3,0 → NULL	3,1 → NULL	3,2 → NULL	3,3 → NULL	3,4 → NULL	3,5 → NULL	3,6 → NULL	3,7 → NULL
4,0 → NULL	4,1 → NULL	4,2 → NULL	4,3 → NULL	4,4 → NULL	4,5 → NULL	4,6 → NULL	4,7 → NULL
5,0 → NULL	5,1 → NULL	5,2 → NULL	5,3 → NULL	5,4 → NULL	5,5 → NULL	5,6 → NULL	5,7 → NULL
6,0 → yD	6,1 → yD	6,2 → yD	6,3 → yD	6,4 → yD	6,5 → yD	6,6 → yD	6,7 → yD
7,0 → yM	7,1 → yS	7,2 → yT	7,3 → yC	7,4 → yP	7,5 → yT	7,6 → yS	7,7 → yM