Grading Rubric
3 pts = Complete with a correct UML diagram.
2 pts = Incomplete/Incorrect UML diagram.
1 pt = Answered questions 1 & 2

Create a class design for a mythical board game. This game is played on a 16x16 board similar to chess or checkers. Each piece moves in a pre-determined way. (See the back side)

1. What general attributes do all of the pieces share in common?

2. What general behaviors do all of the pieces share in common?

3. Identify your class design using a UML Class Diagram.  
   (Remember your classes are identified as using the class box)
   Indicate which methods are abstract with a *

(Hint: we just talked about abstract classes)
Include the following behaviors for each type of piece in your design.

Guard
- Can tell you what type of piece it is.
- Can tell you its current position on the board.
- Maintains its current direction. (Up, Down, Left, Right)
- Moves forward one space at a time. (If it is at the edge of the board it turns around).

Soldier
- Can tell you what type of piece it is.
- Can tell you its current position on the board.
- Maintains its current direction. (Up, Down, Left, Right)
- Moves forward one space, and then randomly left or right one space.

RacingSnail
- Can tell you what type of piece it is.
- Can tell you its current position on the board.
- Maintains its current direction. (Up, Down, Left, Right)
- Moves forward in a straight line until it encounters another piece or the edge of the board, and then turns around.

RockBiter
- Can tell you what type of piece it is.
- Can tell you its current position on the board.
- Maintains its current direction. (Up, Down, Left, Right)
- Moves forward two spaces and then randomly left or right two spaces and turns towards the center of the board.

LuckDragon
- Can tell you what type of piece it is.
- Can tell you its current position on the board.
- Moves to a random space on the board.