

CSE 142 Section Handout #8 Questions (continued)

Critters

3. Define a `Critter` class called `Cat` with the following behavior:

getColor	Its color should alternate between green and white on successive moves
toString	"C"
getMove	It should always infect if an enemy is in front of it. Otherwise it should hop if there is a critter of another species either to its left, its right, or behind it. Otherwise it should turn right.



4. Define a `Critter` class called `Dog` with the following behavior:

getColor	It should be colored pink
toString	It should display how many left turns it has made since it last tried to hop (initially 0, then 1, then 2, ..., eventually becoming 5, then going back to 0, 1, 2, ...).
getMove	It should always infect if an enemy is in front of it. All other turns should have the following pattern: turn left five times and then hop once (e.g. your critter may turn left twice, then infect, then turn left three times, then hop).



5. Define a `Critter` class called `Pigeon` with the following behavior:

getColor	Its color should be the default color for critters.
toString	Their appearance changes over time. Each <code>Pigeon</code> initially displays as an asterisk ("*"). Then as each <code>Pigeon</code> chooses a move, it changes its appearance to match that move. If its most recent move was a hop, it displays as "H". If its most recent move was to turn left, it displays as "L".
getMove	It should always hop when possible and otherwise randomly choose between turning left and turning right, with each choice being equally likely.

