# CSE 142 Section Handout #8

## Problems

## Critters

3. Define a `Critter` class called `Cat.` 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. Its color should alternate between green and white on successive moves and it should be displayed as a "C".

4. Define a `Critter` class called `Dog`. 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). It should be colored pink and 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, ...).

5. Define a `Critter` class called `Pigeon`. The instances of the `Pigeon` class always hop when possible and otherwise randomly choose between turning left and turning right, with each choice being equally likely. Their appearance changes over time. Each `Pigeon` initially displays as an asterisk ("*"). Then as each `Pigeon` 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". And if its most recent move was to turn right, it displays as "R". Its color should be the default color for critters.