

HOMEWORK CLASS 6

Heroes and Cowards code

```
turtles-own [ friend enemy ]

to setup
  clear-all
  ask patches [ set pcolor white ] ;; create a blank background
  create-turtles number [
    setxy random-xcor random-ycor

    ;; set the turtle personalities based on chooser
    if (personalities = "brave") [ set color blue ]
    if (personalities = "cowardly") [ set color red ]
    if (personalities = "mixed") [ set color one-of [ red blue ] ]

    ;; choose friend and enemy targets
    set friend one-of other turtles
    set enemy one-of other turtles
  ]
  reset-ticks
end

...
```

Modify the Heroes and Cowards setup code so that:

1. The enemy and friend of each turtle cannot be the same agent.
2. Define a procedure to verify your solution to the previous requirement and test the procedure.
3. In the 'mixed' case modify the model so that the percentage of 'heroes' is a percentage defined by a slider.
4. Introduce your modifications in the code of the model you can find in the library (IABM textbook/chapter 2). What happens to the presets final patterns when you vary the percentage of 'heroes'?
5. Document in the info tab your changes and findings and return the model file.