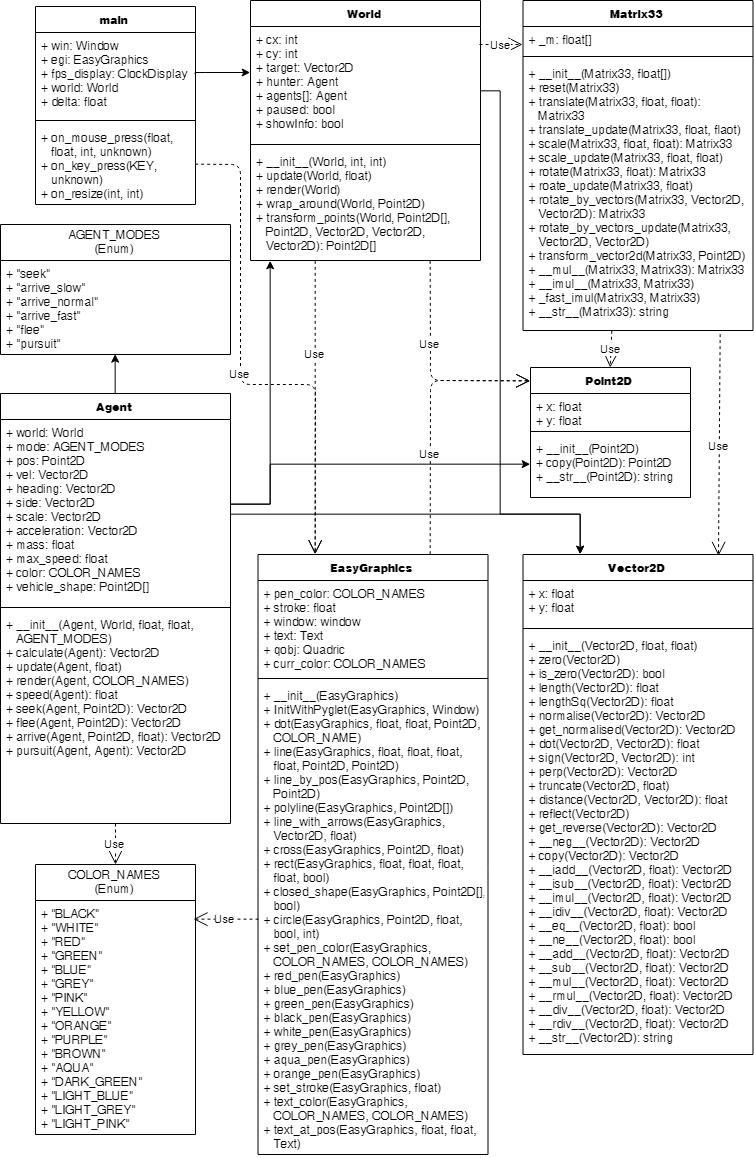
Task 8: Autonomous Steering

# UML Diagram



# Lab Coding

## Multiple, Varied Agents

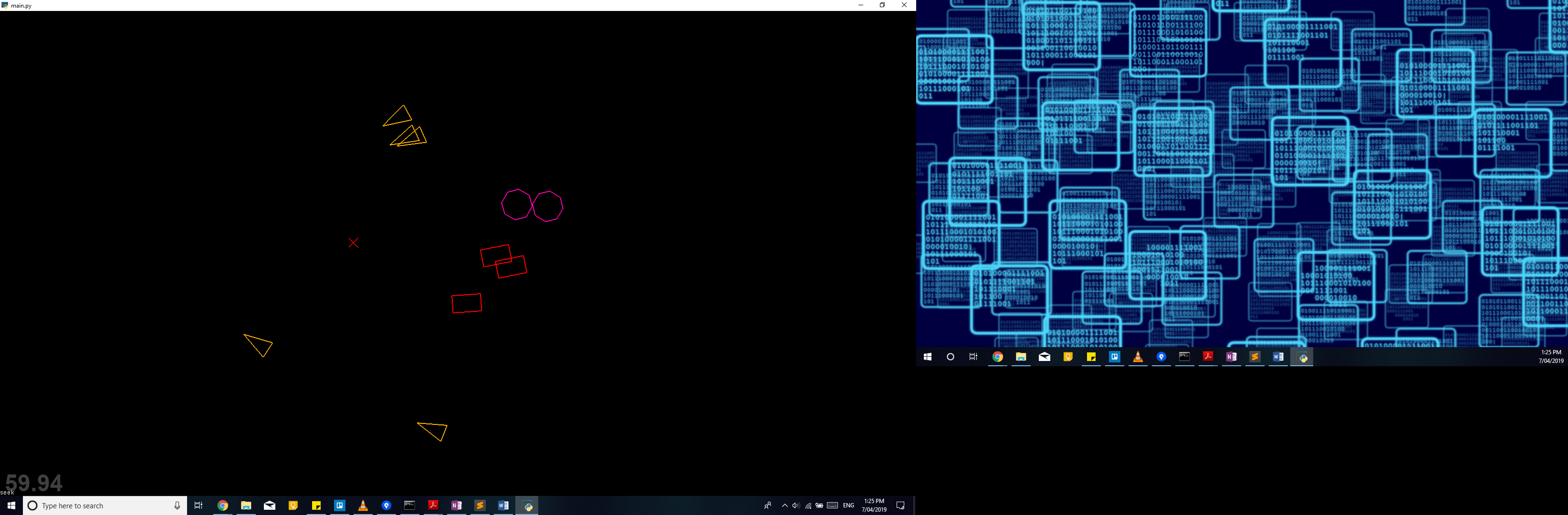
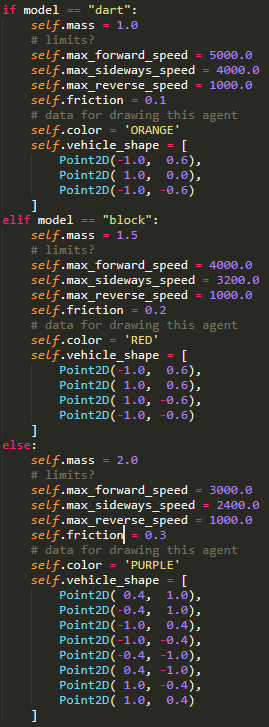


Figure 3: The attributes of each model of agent.

Figure 1: A screenshot of the program featuring multiple agents of different shapes. Each has different attributes for mass and max forward / sideways speed.

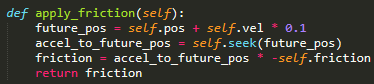


Figure 2: The apply\_friction method

## Flee with Panic Distance

Figure 4: the flee method adapted from the lecture slides, with panic distance implemented.

## Deceleration Speeds

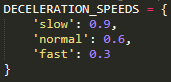


Figure 5: the arrive method being called with different deceleration speeds implemented successfully.

Figure 6: the deceleration speeds.

## Pursuit

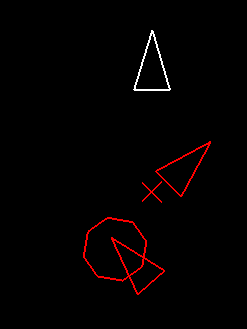


Figure 9: a poor triangle being harassed by two triangles, an octagon, and a mouse-spawn X.

Figure 7: the pursuit code adapted from the lecture slides.

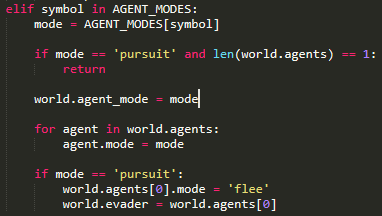


Figure 8: the code setting the pursuing agents to pursue world.agents[0], which is made to flee the mouse clicks.

## Varied steering limits

Figure 10: the method for enforcing varied steering and speed limits. See fig. 3 for the values assigned to each model of agent.