COMP 110 Object-Oriented Programming
Assignment 3 – Cat Simulation

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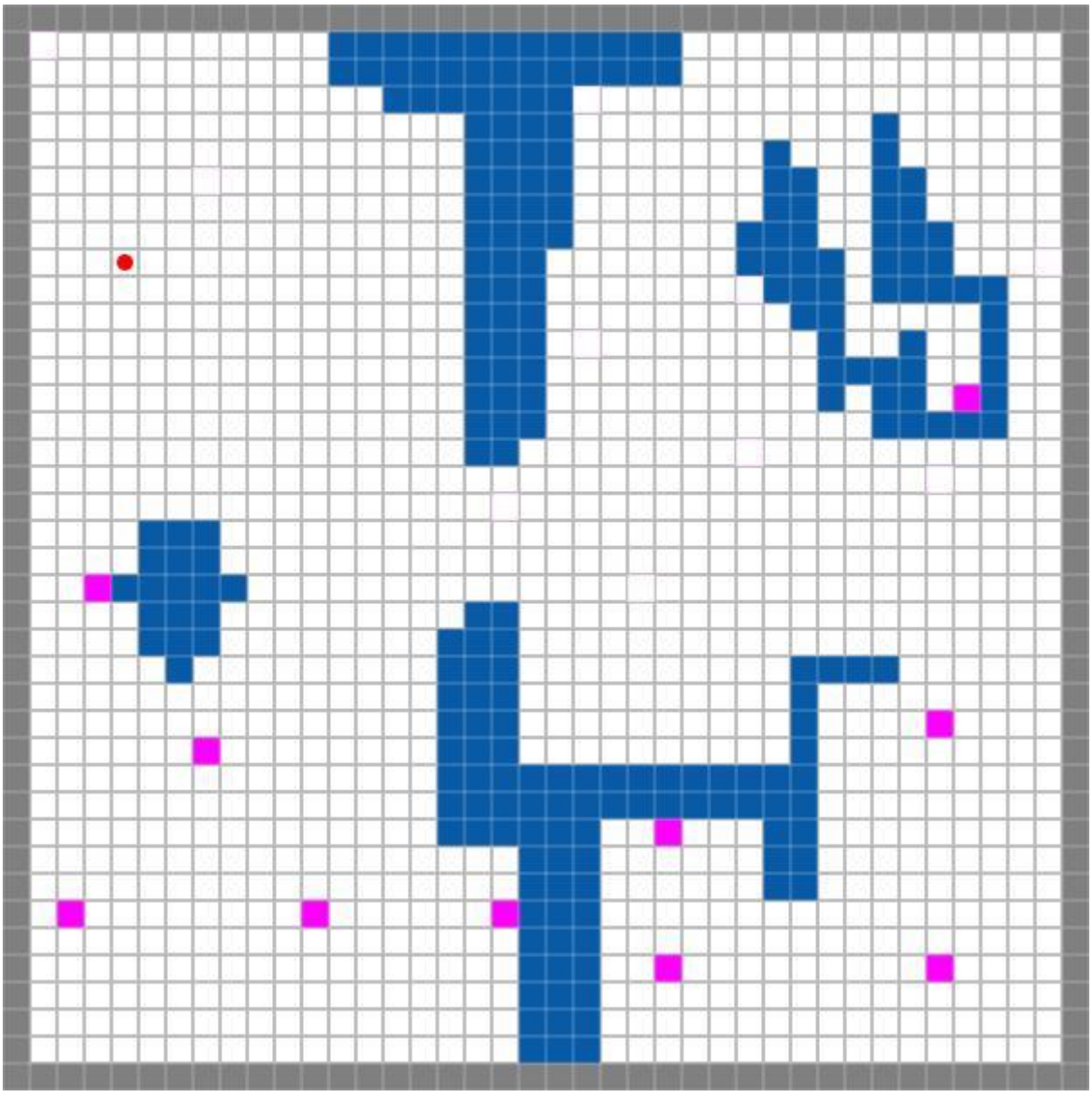
Algorithm Explanation

In this assignment, I used a graphics library. this program creates a canvas with a 600X600 mm width and height. It sets the canvas Xscale (0,40) and Yscale (40,0) Then, it takes world size from a text file. after that, according to world size it creates a two-dimensional array. In a loop takes String values and parse to int after that assign to our two-dimensional array.
In a for loop it reads the array and creates the world areas (sea, wall, food and flat).
I created a cat object it moves randomly, however it can not pass the sea or wall and if it has a near food resource it directly goes to the food. When the cat eats a food, food remove from the map and add 1 to food count.

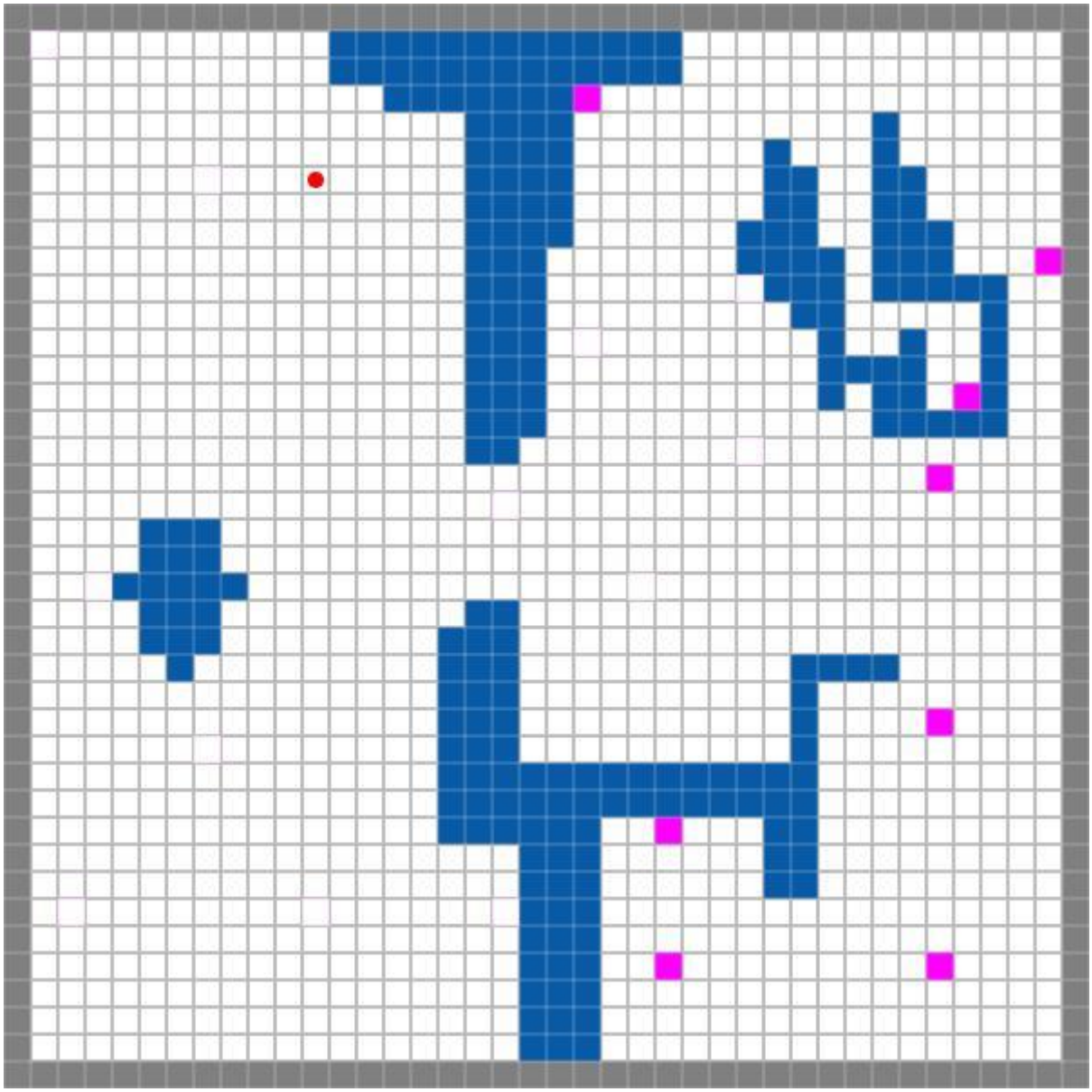
Sample Outputs

When cat moves 5000 time



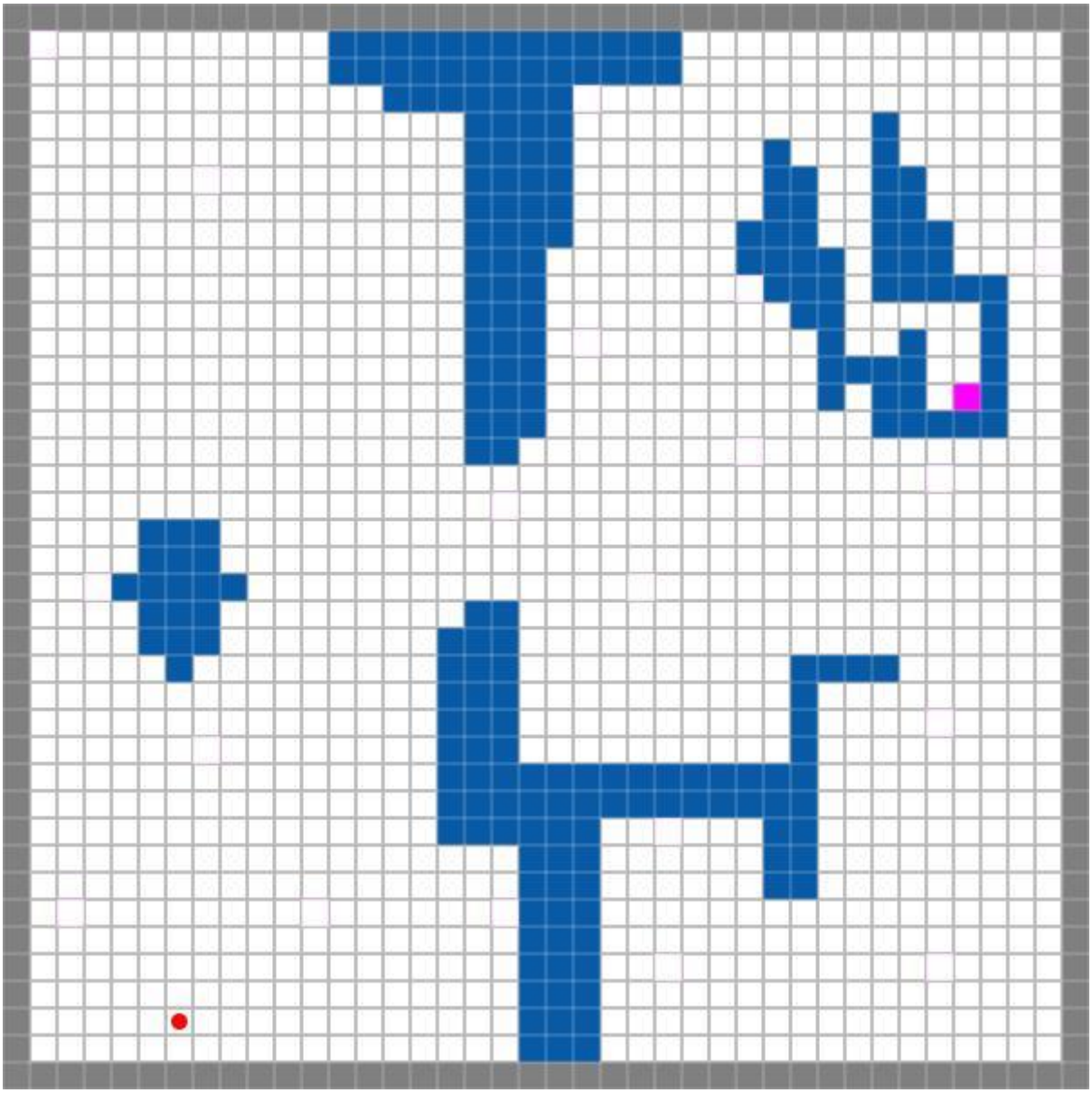
(food counter is 10)

When cat moves 10000 times



(food counter is 12)

When cat moves 20000 times



(food counter is 19)