Project 3 report

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To the best of my knowledge my code imitates the given specs and sample program.

3: I was unsure of how to handle certain interactions that occur in the same tick. For example, if a citizen or Penelope manage to escape on the same tick that they would die (perhaps due to infection). The assumption that I made was that, even though in my code they had been marked as successfully escaping by the exit, the studentworld would not allow a dead actor to escape.

I was unsure if we were required to restrict the area where actors could move or be created to the size of the maze, however since the specs specify that all mazes will be surrounded by walls, I decided to not implement those extra safeguards.

4: Most classes were tested using vigorous playtesting and the debugger. I edited the first level to help with playtesting, by starting with one of whatever actor I needed to test at the time. For example, I would place goodies near the start to see if Penelope could pick up goodies.

For Penelope, I individually had to test each input, making sure she responded to control correctly, and that she was unable to walk into objects where she wasn’t allowed. Penelopes testing obviously had large overlaps with all the other classes since Penelope herself interacts with each other object. I made sure she died at appropriate times, when interacting with a fire, pit, or infected, and making sure lifes decremented appropriately. Making sure penelopes flamethrower worked properly, not placing flames on objects that block them, or past objects that block them, but placing them otherwise.

For testing walls, I simply made sure that their alignment followed the layout of the levels, and that no actors could move inside of them.

I made sure each goodie was able to be picked up by the player, and that they give the proper points and inventory items. Also tested to see if they were destructible.

Testing pits were fun, making sure they killed Penelope and other beings. Testing Landmines was even more difficult, as it was hard to move away from a landmine without exploding. But making sure it created a pit and all the necessary flame objects, and making sure it was inactivated for exactly 30 ticks.

The hardest classes to test were the “Being” subclasses, zombies and citizens. I tested citizens alone, making sure they were able to follow Penelope and enter the exits, while not allowing Penelope to enter the exits while any are still alive. I checked to make sure that when they died or were rescued, they updated the scoreboard correctly, and that the scoreboard was able to display negative numbers correctly. I also had to test them with zombies, to make sure they were able to run away from zombies and die from infection properly

I Tested zombies by first testing their vomit capability before they were able to move, triggering its vomit by walking in front of it. By placing citizens in front of the zombie in the level document, and then by watching them move. At first, zombies were moving too quickly and I realized my paralyzed function was not working properly with the zombies, so I had to adjust that.

The only difference between dumb zombies and smart zombies I had to test for was making sure smart zombies walked towards humans, and that dumb zombies were capable of dropping vaccines.