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GacMan Project 4

I used Actor as my hierarchy and Monster was a child that inherited from actor and monster’s s children, Inky, Dinky, Stinky, and Clyde, inherited from their parent, Monster, and their grandparent, Actor. Monster got two constructors this time because I wanted some of the children to be able to have a pointer to player and other did not so I made two constructors. I have a returnToHome() function that, when called, all of the monsters return to their starting positions. I check if they are vulnerable in game’s run. I also have a set normal that just changes the state, symbol and colors for the monster. SetVulnerable() takes in players’ level and sets the number of ticks the monster. decreaseTicks() is used for when I call it each time a move occurs so that way they may change back to normal after the numOfTicks are gone. changeDir() checks the possible moves and sets a randomDir and randomSpots. getState() returns the int of the state. Changes() is there for frequently used code. Monster passes down the move() and each child handles is according to the way they are supposed to move. In each child, except Inky because he moves the same either way, I check for the state and then call move methods out of monster (like moveRandom() , moveLine()) depending on what movement goes with what state for that monster. The only functions in all four children are the move() methods.

In Dinky’s normal state he just moves like Clyde’s normal state. In Dinky’s vulnerable state I have him return to home and stay there until he is not vulnerable anymore so that way the player will not be able to eat him. In Dinky’s move() function he calls the function specVuln() out of Monster and that is how he gets back home (I just re-used the depth for search function in maze for this). I wanted to make Dinky follow GacMan using depth for search and take the shortest path to GacMan but it didn’t work out for me. I also tried to make Dinky move back and forth from the & to the % when he is at home so he is “moving every tick”.

I know that Dinky is not supposed move normal as Clyde. I also do not have Stinky completely working. He seems to run away from GacMan when he is vulnerable but when he hits a wall he stops instead of changing direction. I tried very many times to fix this but because I did not organize my code very well I just kept getting confused and I could not get it to work.

The only decision I made that I was not sure if it was allowed was the Dinky moving back to home when vulnerable decision. It did not say that I couldn’t do that and he isn’t cheating because he moves one space at a time. I decided to do it but if this is considered cheating then maybe next time the spec should be a little more clearer on what Dinky can and cannot do.  
 I had a really difficult time trying to come up with something more intelligent for Dinky’s movement. I thought the idea I had was good for him when he is normal (see above) but I am not sure if that would be allowed and considered “more intelligent” than the other monsters.

I wish that I would have made more use of the variables I made in actor that could have been used in Monster as well. I used some of the variables only for the player and I did not use them again in monster when I could have instead of making other variables that were similar. I also wish that I would have used easier directions like 1 & -1 because I used other numbers and got myself confused. I also wish I would’ve made the monsters directions collaborate with player’s direction. For example player already had predetermined directions as far as the chars in CConsole went and I should’ve kept them the same to save confusion.

My biggest mistake with this project was definitely not keeping it organized and, on many occasions, “shooting myself in the foot” by coming up with terrible method or variable names. I really kept getting confused in my code and I really lost track of what I meant when I did stuff; partly because of the names and partly because of the lack of commenting. I realize that this was my first “big” project with multiple files which made it a little more difficult and I now am more aware of things that I did not know I do on a regular basis and will try to fix in the upcoming projects/labs.