Design doc for Assignment 2 Tony Nguyen

**Zombie Attacks** –

Files:

AttackAction

Zombie

HealAction

ZombiePickUpBehaviour

ZombieSpeechAction

ZombieSpeechBehaviour

Changes to Zombie :

the getIntrinsicWeapon in Zombie has been overwritten to deal with chance to do a bite (later on it will get overwritten again to deal with limbs), Along with this 2 behaviours have been added to zombies list of behaviours.

Ok so first ZombiePickUpBehaviour is the behaviour to pick up weapons on the floor(only weapons) the other is to do a 10% to take there turn and emoting. The way the behaviours are position in the list of behaviours is on purpose as it goes like this:

10% chance to say something>

If not then is there item pick up?>

>no, then the other behaviours

This way it matches specification that speech and picking up weapons take up entire turns.

Behaviours:

ZombiePickUpBehaviour calls the already established pickupitemaction and ZombieSpeechBehaviour calls ZombieSpeechAction.

ZombieSpeechAction just decides what the zombie specifically says, the behaviour is what decides if they actually do say anything

AttackAction:

What we changed in attackaction is that it checks if it the verb is “bites” then it will heal the zombie by calling HealAction for the actor(which is the zombie) and heal 5 points

**Beating up Zombies:**

Files:

Zombie

AttackAction

ZombieArm.

ZombieLeg

Changes to Zombie:

Added limb. Counters arms and legs

Overwritten getintrincsicWeapon to deal with limbs affecting attack chances

Overwritten hurt() to deal with losing limbs and part of the putting limbs into the map by adding a portableItem of the limb into the inventory

AttackAction Changes:

Checks if zombie was target , if it is a zombie check it is in the inventory and if it has a limb then it lost a limb and now must remove from inventory and create ZombieArm or ZoombieLeg to be placed onto the map where the Zombie is standing

ZombieArm and ZombieLeg are just classes which represent limbs.

**Crafting** –

Files:

CraftingAction

ZombieArm.

ZombieLeg

ZombieArmClub

ZombieLegMace

Crafting action essentially takes the inputs Zombie leg or zombie arm , removes them from actors inventory and gives them ZombieLegMace and ZombieArmClub respectively.

Both Zombie leg and arm inherit from portable item and ZombieArmClub /ZombieLegMace inherit from WeaponItem

Crafting Action inherits from action

There was a problem with crafting, in that everything related to this has a 1 turn delay. For example, after picking up an item you can’t craft immediately until the next turn, along with this after dropping the item the player will still have the option for crafting until the next turn (you can duplicate items this way)

Ultimately though I can’t solve this problem as it is tied to the world.java I believe

How’ve implemented crafting is that items should be craft able when getDropItem/getPickUpItem are called.

Since I’ve overridden the getDropItem/getPickUpItem to give crafting actions to allowable actions,

How it should work is:

Pick up item >

world processes allowable actions on the start of the next turn (crafting action) >

crafting is in the menu because it was in allowable actions

but this isn’t happening as something makes it so that nothing changes in allowable action for that turn, and yet what should happen is that allowable actions is calculated at the start of each turn so therefore it should be part of that turn.

**Rise from the dead** –

Files: Just changes to portable file

And minor changes to Attackaction

For Attack action I had to change the production of corpses to specialise for zombies (‘^’) and normal players (‘%’)

Changes to portableItem are just about the tick method. How the rise from the dead works is it checks if it is ‘%’ (corpse) and it has a counter that once it’s about turns 5-10 it may delete the corpse and produce a zombie. Beyond the 10th turn it won’t tick anymore because it means it’s completely dead.

**Things I didn’t have time to Implement** –

* Zombies picking up their own limbs
* Fixing the turn delay with crafting
* Zombies movement speed with legs
* Zombies dropping weapons upon losing arms

**General thoughts**

From assignment 1 to assignment 2 I pretty much followed assignment 1 except for maybe the behaviours for zombie moves but generally I followed the design of assignment 1