**Changes made during Assignment 2:**

**Zombie attacks:**

* Zombies will only pick up weapons if they have at least one arm.
* On top of having an availableLimbs array, two counters were added: ArmCount and LegCount. These counters were used to keep track of how many arms and legs a particular Zombie has.
* speakAction was not made because only the Zombie class used it. Furthermore, the execute method in the Action class takes in GameMap as a parameter. This was no use in printing out the text onto the screen. Using a ‘dummy’ implementation to solve this issue does not adhere to the Interface Segregation Principle.

**Beating up Zombies:**

* The Zombies no longer drop its limbs at its adjacent spot, not its current spot. This caused a problem since the Zombie will always pick up a weapon if it is standing on top of one at the start of the turn, thus won’t move after it has lost a limb.
* SetItemAction now inherits from Action as opposed to DropItemAction. This was done to follow the Liskov Substitution Principle.

**Crafting weapons:**

* The only change made was craftAction does not use a HashMap to find the crafted outcome of the weapon item. This minor change was replaced with a single if statement, as there were only 2 craftable weapons. Although in future, if there are more craftable weapons being added we plan to reimplement the HashMap.

**Rising from the dead:**

* To implement rising from the dead, a Corpse class was made instead. The Corpse class inherits PortibleItem and resembles the dead body of an actor. The tick methods in this class were also implemented to increment a counter by one each turn. Once the counter reached a number between 4 to 9, there would be a 50% chance of spawning a Zombie. This probability increased to 100% once the counter reached 10.
  + If the corpse was on the ground, it would spawn the Zombie in its current spot or adjacent spot depending on whether another actor resides in that spot or not.
  + If the corpse was being carried by the player, the corpse would be removed from its inventory and a Zombie would spawn in the next available adjacent spot.
  + If no available spots are available for the Zombie to spawn, it will spawn once an available spot has opened.

**Farmers and food:**

* The farmer can only sow a crop to an adjacent tile from his current position (he cannot sow a crop on the tile he is located on). This was done using exits and shuffling them to get a Dirt Ground to be replaced with a new Crop Ground(very similar to setItemAction), although if both chosen numbers are 0, this process is repeated until at least one of the integers are not 0. This entire process is also repeated if the chosen random position does not have a ground object of Dirt.
* In the Farmer class, priorities have been added in the playTurn (all Actors have this method to decide the next action to be taken) method. The sow action takes the first priority, in order to maintain its probability of success. The harvestAction takes the next priority, although it cannot be spammed by the Farmer (cooldown of 1 turn). A new fertilizeAction class has been added, which increases the age of the Crop at the location of the Farmer by 10, when called. This Action takes the third priority, the last priority is taken by the human Behaviour. This means that the Farmer can only conduct one Action at a time, for example it cannot fertilize a Crop and move to another tile in the same turn.
* The harvest action is also implemented in a similar method to that of AttackBehaviour, it uses exits to find a tile with a grown Crop.