

## LLYAndTSM

### Zombie

Zombie is from the game package. It is a child class of Zombie Actor. Zombie has an AttackBehavior class. Because zombie have many attack actions. This attack actions can be class into AttackBehaviour. This AttackBehaviour class consists of Attack actions such as bite(),punch(),slash(),hit(). The relation between AttackBehaviour and AttackAction is a dependency. Zombie is able to pick up a weapon. So ZombieActor which is the parent of Zombie is able to access pickUpItemAction that is a class in the engine package. The pickUpItemAction will take an Item. Weapon is a child of Item. From this connection, the zombie is able to pick up a weapon.

### Human

Has 2 child classes which are player and farmer. Is an abstract class  
Human interacts with action class because human has many actions

### Player

Inherits from human because a player is human but with more of its own extra functionality  
The player has an attackBehaviour. These class allows the player to have many types of attack. Once of which a player can wield weapons. A player shs an arraylist of inventory that stores what the player has picked up eg: food, weapon and etc. This is why player is connected to pickUpAction. This is to allow player to pick up items. When the zombie drops limbs it becomes an item. So when Player is able to pick up item it can pick up zombie libs and make it into weapons.

### Farmer

Inherits from a human but with more of its own extra functionality. Farmer extra functionality is creating food, fertilizing crops, harvesting crops. These extra functionality is added into FarmBehaviour. This FarmBehaviour is an inheritance of the behaviour interface. When a farmer harvest a crop it becomes a food because the crop is inherited from food. This food is inherited from item. When a farmer stands over a patch of dirt it can sow a crop in it. That is why farmer can interact with the dirt class. The dirt class can have crop on it. Thus it also connected to the crop class. When the farmer harvest the crop, it will drop the food. Because Farmer is inherited from Human class which is also inherited from ZombieActor. Zombie actor is able to drop item with the connection to DropItemAction. This will alow the Farmer to drop the food after is harvested.

### AttackAction

Both Player and Zombie have attack behaviour, therefore they are associated with AttackBehaviour which consists of AttackAction. AttackAction is a class consisting of special Action for attacking other Actors. Currently, it only consists of the normal punch

attack, so adding in other types of attack actions such as bite, slash and hit would enable the code to be reused as both zombie and player are able to attack other actors.

### ZombieClub & ZombieMace

*WeaponItem* is an abstract class which represents items that can be used as a weapon. Therefore both *ZombieClub* and *ZombieMace* classes are created and inherited from *WeaponItem* as players are able to craft new weapons using the zombie's limbs.

### Damage

Damage class is created as an attack action may cause damage to the zombie, causing the zombie to lose its limbs and potentially affects the zombie's movement such as movement speed and attack actions. It is dependent on the *AttackAction* class because different attack actions can cause different types of damage to the zombie. Damage class is also dependent on *DropItemAction* because certain arm damages may cause the zombie to drop its weapon.