**Class Responsibilities**

**Farmer, Player & Human**

Human

- Extends Zombie Actor

- Has behaviours

- FoodBehaviour

- HarvestBehaviour

- DeadBehaviour

- if this.hasCapability(ZombieCapability.DEAD) == true

- random no generator between 5 and 10

- ticker method to count age

- when age = random number, execute RiseFromDead

Farmer

- Extends Human

- Has behaviour

- FarmerBehaviour

Player

- Extends Human

- Has behaviour

- CraftBehaviour

**Craft Club & Mace**

CraftBehaviour

- Dependant on Behaviour Interface

- Accessible by Player

- Generates a

- CraftAction if the current Player is holding a ZombieLimb

CraftAction

- Extends Action

- Creates instance of ZombieWeapon

- If ZombieLimb = ZombieArm

- create instance of ZombieWeapon titled ZombieClub

If ZombieLimb = ZombieLeg

- create instance of ZombieWeapon titled ZombieMace

- Removes instance of ZombieLimb

ZombieWeapon

- Extends WeaponItem

- ZombieClub

-damage = 30

- verb = "clubs"

- ZombieMace

- damage = 40

- verb - "maces"

**FarmerBehaviour & Corresponding Actions**

FarmerBehaviour

- Implements Behaviour Interface

- Accessible by Farmer

- Generates a

- SowingAction if the current Farmer is standing next to a patch of dirt

- FertlizeAction if the current Farmer is standing on unripe crop

- HarvestCropAction if current Farmer is standing on or next to a ripe crop

FertlizeAction

- Extends Action

- When standing on an unripe crop, a Farmer can fertilize it, decreasing the time left to ripen by 10 turns

- identify unripe crop to fertilize

- unripe crop age=+ 10

- method for menu description

- (name of Farmer) fertilized unripe crop

SowingAction

- Extends Action

- When standing next to a patch of dirt, a Farmer has a 33% probability of sowing a crop on it

- happens every move

- 1/3 chance per turn its successful (use random number generator)

- if successful, creates instance of UnripeCrop class on location in map

- method for menu description

- (name of Farmer) sowed a crop

HarvestCropAction

- Extends Action

- When standing on or next to a ripe crop, a Farmer can harvest it for food

- Food is placed on the ground

- Create instance of Food

- Remove instance of RipeCrop

**Human Harvest Food**

HarvestBehaviour

- Dependant on Behaviour Interface

- Accessible by Player

- Generates a HarvestFoodAction if current Player is standing on or next to a ripe crop

HarvestFoodAction

- Extends Action

- If the Player harvests the food

- it is placed in the player’s inventory

- pick up item

**UnripeCrop, RipeCrop, Food**

UnripeCrop

- Imports edu.monash.fit2099.engine.Ground;

- Extends Ground

- displayChar 'c'

- left alone, a crop will ripen in 20 turns

- tick method to measure age

- increment age

- if age => 20

- execute UnripeToRipe

RipeCrop

- Imports edu.monash.fit2099.engine.Ground;

- Extends Ground

- displayChar 'C'

UnripeToRipeCrop

- Removes instance of UnripeCrop

- Create instance of RipeCrop at same location

Food

- Imports edu.monash.fit2099.engine.WeaponItem;

- Extends WeaponItem

- displayChar 'F'

- Food can be eaten by the player, or by damaged humans, to recover some health points

- Actor is the current player/human

- 20 health points

**Eat Food**

FoodBehaviour

- Dependant on Behaviour Interface

- Accessible by Human

- Generates an EatFoodAction if the current Player/(damaged) Human holds food in their inventory

EatFoodAction

- Extends Action

- Actor is current human/player

- Recover health points 20

- Removes Food instance

- method for menu description

- (name of Player/human) ate food and recovered 20 health points

**Rise from the Dead**

DeadBehaviour

- Dependant on Behaviour Interface

- Accessible by Human

- Generates a RiseFromDeadAction if current Humans time as dead is over

RiseFromDeadAction

- Extends Action

- Creates instance of ZombieActor

- removes instance of Human

- at current location

- - method for menu description

- a Zombie (name) rises from the dead!