Bush

Create Bush class which extends Ground class.Dirt class will have a method which will have a 1 % chance to change dirt to bush by changing the character to a bush character and adding a Bush object to Dirt object.Dirt class will tick() override method which will have check for each dirt the if there is a bush near by which changes chance to 10% and if tree is nearby changes to 0%

Tree

Create fruit class which extends Item class which will be called by tree and bush classes tick() method .

Fruit class will contain method which will have a chance to make a fruit (50% - tree & 10% - bush) which will add the capability FRUIT to the tree/bush, and add fruit object to tree/bush

Tick() in tree will also call method in fruit which will have a 5% chance to drop a fruit which will add capability PICK\_FRUIT and reduce the number of fruit on tree and add it to the fruit on floor and remove FRUIT capability if its the last fruit

The counter for the fruit will also start at 0 which after 15 turns will remove the fruit from the floor and remove PICK\_FRUIT if it is the last fruit on the floor.

Player

If player is standing on a tree/bush player will have pick up fruits in list of actions if it hascapability FRUIT. if there is no fruit on the ground then player can search the tree for fruit which has 60% and if fruit is found or picked up it fruit object can be added using addToInventory() and fruit will be removed from tree/bush object.

Hungry dinosaurs

Stegosaur class will have parameters for initial food level, gender which would give that dinosaur MALE/FEMALE capability and a agecounter which start and goes up 1 every turn, foodlevel will go down by 1 every turn

If dinosaur’s food level is below its hunger it will get capability HUNGRY and will seek food

Seek food method can be added to Behaviour interface which the dinosaurs can share which would direct them to the closest food source it can eat.

If it eats , fruit will be removed from object and dinosaur will get food level increase according to who ate it ( stegosaur - 10 brachiosaurus -5)

If an actor is not conscious that can be checked using isConcious() then after certain number of turns the actor will be removed using remove()

FeedAction class which extends Action will be made to feed dinosaurs which can be used to feed fruit or meal kits which will fill receiving dinosaurs foodlevel and be removed from the players inventory

Brachiosaur

Brachiosaur class will be carted which extends Actor class

They will have capability to only eat from trees.

If Brachiosar’s destination location has bush object 50% it is removed

Breeding

If dinosaurs foodlevel and is a adult is sufficient seekMate method can be added to behaviour

Which will make them move towards a dinosaur of the opposite gender of the same species

When mating dinosaurs will not move for specific turns (10- Stegosaur, 30-Brachisaur)

Egg class will be created which extends Item class

Then the female will add a egg object to the ground which will hatch in specific turns (30- Stegosaur, 50-Brachisaur) This will add new Actors of that species with starting food level 10