

## **EDITING EXISTING CLASSES**

**Zombie**

**Human**

## **NEW CLASSES**

### **Farmer**

Inherits from the Human class because a Farmer object should have the same characteristics as any other Human but is able to plant, fertilize and harvest crops.

#### **METHODS**

##### **1. Farmer(String name)**

Constructor to make a Farmer object. Calls super(name, 'F', 80). The displayChar is chosen to be 'F' so that one can tell the difference between an ordinary human and a farmer. It'll be good for the player to know if there are any farmers left in the game. The hitPoints we chose is higher than an ordinary Human because farmers shouldn't be so easily killed as they are essential actors that provide the opportunity to heal, but it is still lower than the player's to make it challenging.

##### **2. plantCrops()**

Checks the adjacent ground around the farmer and has a 33% chance to create a new Crop object if the ground is empty.

##### **3. fertilizeCrops()**

Decreases the crop's time left to ripen by 10 turns.

##### **4. harvestCrops()**

If the crop is ripe, the crop is harvested. A new Food object is created and left on the ground for the player or a Human to pick up.

### **Crop**

Inherits from Ground class because it grows on the ground.

#### **ATTRIBUTES**

age - to be able to tell how ripe a crop is.

#### **METHODS**

##### **1. Crop()**

displayChar starts off as 'c'

##### **2. @Override**

##### **tick(Location location)**

Implemented to change its displayChar as the crop ripens. Once its age turns to 10, the displayChar is changed to 'g'. After age turns 20, it is ripe so the displayChar changes to '8'. We wanted to use characters that were similar to each other but can

also can be told apart if we simply used 'c' and 'C', it would be difficult to tell when it is ready for harvest.