# Changes to Assignment 2 Implementation

* Added **CropCapability** enum to be used in **Crop** and **Farmer** to identify if **Crop** is ripe or unripe. So, there is no need to make assumptions if the crop is ripe or unripe based on the size of **allowableAction** on **Crop**.
* Instead of **CraftWeaponAction** being responsible of creating the upgraded weapon from **ZombieLimb**, the subclasses of **ZombieLimb** are responsible. This is done to follow the Open/Closed Principle. Now **CraftWeaponAction** is open for extension by introducing new upgradable items without modifying it. To achieve this, an **upgrade()** method is added to the **ItemInterface** which returns an upgraded form of the item if it has one, else, it’ll return null.
* Originally, the name of the **ZombieLimb** is used to identify whether the limb is an arm or leg. This is a Connascence of Name (CoN) that an IDE cannot pick up and can lead to a bug that is hard to identify if the name of the **ZombieLimb** is changed. To avoid this, **ZombieLimb** is changed to an abstract class and has two subclasses – **ZombieArm** and **ZombieLeg**. This still has a CoN but it works to our benefit as an IDE can easily identify the bug.
* Removed use of **instanceof** where it is not limited to that class as it is a code smell which restricts polymorphism. It is replaced with the use of **Capabilities**.
  + Added **EatCapability** enum to identify whether an item can be eaten, rather than checking if the **Item** is an instance of **Food**.
  + Added **GroundCapability** enum to identify whether a ground is sowable, rather than checking if the **Ground** is an instance of **Dirt**.