



# REQ1

Tree extends the Ground class in engine and Tree has three child classes that represent a tree's stages:

Sprout, Sapling and Mature

The mature tree has a dependency with the Dirt class as the Mature tree has a chance to change into Dirt with every turn.

Sprout has a dependency with Goomba since it has a chance to spawn a Goomba

Sapling has a dependency with the Coin Item class since a sapling has a chance to drop a coin every turn

Mature has a dependency with Koopa because it has a chance to spawn a Koopa

Sprout and Mature both have an dependency with the Location class. This is so that they may use the Location class' containAnActor(); method to determine if an actor is present at the location.