

Design Rationale, REQ1

Sprout, sapling and mature extends tree. Since they are cycled and has common attribute/method such turns(int, counter for number of turns in the map), they can be categorized as tree. If it does not extend tree abstract class, it could be hard to understand their relation (It has cycle and common method/attribute). In future implementation, it is easier to create method/attributes that they share.

Places some sprouts on the map during the instantiation. Inside application, it randomly changes dirt to sprout after creating a game map. It randomly generates x and y within the size of the map and changes the ground to sprout if ground is dirt. This can be performed multiple times to place several sprouts.

Each tree subclasses requirements can be coded inside override tick(Location). It has Location as input param, so that can be used to add actor or change ground.