

## Design Rationale (REQ4):

FireFlower is a concrete class that is extended from the MagicalItems abstract class. This decision was made as the user can consume this item and gain special abilities. The sprout and sapling classes spawns the fire flower in their growing phases hence they have a dependency with the FireFlower class.

The ConsumeItemAction class which extends the Action class takes in a parameter of the fire flower and does the consume action and assigns a FIRE\_ATTACK capability to Player. Using capabilities helps us avoid using the instanceof feature which usually is a sign of poor design. The FireAttackAction class checks if the player has the capability and performs the fire attack on enemies.