

## REQ 5 Design Rationale

The classes introduced in requirement 5 are the new enemies that exist in the East side of the map. The new classes are GiantCrayfish, SkeletalBandit and GiantDog, along with the new weapon of the SkeletalBandit, the Scimitar.

The new enemies will inherit the abstract Enemy class that we created in Req 1 and the Scimitar will inherit from the abstract class WeaponItem. Instead of having new abstract classes for East and West to differentiate between where the enemies spawn, we decided to have them just have dependencies with their spawn locations similar to Req 1, and will differentiate where they can spawn using a boolean variable in each Environment (isEast or isWest) to uphold the DRY principle.

As an example of OCP, each environment class from Req 1 has been extended to spawn different enemies depending on whereabouts the environment is on the world map.