

REQ 1 - ENEMIES AND ENVIRONMENTS

What classes will exist in your extended system:

- Gust of Wind
- Graveyard
- Puddle of Water

All of these new environment classes inherit from the abstract parent class 'Ground'.

- Heavy Skeletal Swordsman
- Lone Wolf
- Giant Crab

How these classes relate to and interact with the existing system:

These classes relate to and interact with the existing system by inheriting from an abstract parent class. Each of the new environments inherits from the abstract parent class 'ground' - as they are ground that the player can walk on. Each new environment also has an association with the enemy type unique to that environment.

how the (existing and new) classes will interact to deliver the required functionality:

The player will be able to walk over the new environments. The environments, each turn, will have a unique chance of spawning the enemy unique to each environment - which will be able to interact with the player in combat.

My design follows OOP principles by avoiding repetition (DRY) by each new concrete class inheriting from the abstract 'ground' class, as opposed to creating a brand new class for each new environment. Similarly, this means that more unique environments can be created in the future by inheriting from the abstract 'ground' class. Each new child class also follows the single responsibility principle by handling their own unique properties; there are no overlapping responsibilities between classes. Each class denotes its own unique chance of spawning its enemy, and which enemy to spawn - thus following SRP.