

Design Rationale for More Enemies

The diagram represents an object-oriented system for new different types of enemies and weapons in the game.

The MapSides abstract class is created to split the maps into two sides, where the EastSide and WestSide classes extend from it since both classes share some common methods and attributes. This also allows adding new enemies that spawn on different sides and therefore adheres to the open-closed principle.

New enemies and weapons that have the same methods and attributes are extended from the existing abstract class. For the new enemies, they also have an association with the existing GroundSpawner class, as some enemies are from the same species. While certain enemies from different classes have the same attack also share the same attack action.

All these follow the DRY principle of not repeating the code by reusing the created classes and functions through inheritance.