

Design Rationale for Requirement 2: More allies and enemies!

Explanation of system

This requirement involves the addition of numerous new allies and enemies classes, each with unique functionality.

Choice

There should be a new abstract class enemies, and another new abstract class allies created.

Justification

This will make code easily extensible for the future, as adding new types of enemies or allies will become much easier, therefore supporting OCP.

Choice

Making a BaseKoopa abstract class and having both the original Koopa and the new Flying Koopa extend it.

Justification

This enables both koopa classes to pull their common/shared functionality from the BaseKoopa class, therefore supporting LSP as the subclasses become substitutable with the superclass. This also supports ISP as no functions that will be inherited from the BaseKoopa superclass that aren't needed by the child Koopa class.