

Task 19 Spike: Game Resource Management (Factory Pattern)

OPTIONAL

Context

Games often need to create a number of different, yet similar, objects. Often the exact variant of an object the game will be creating is not known beforehand. The Factory Pattern allows for Factories to be written that handle the creation of objects that all conform to a common specification (i.e. all share a common parent or interface or blueprint).

Knowledge/Skill Gap:

The developer needs to know how to create, for a 2D shooter game, a Factory to load enemies with different properties and functionality.

Goals

Building on the work of earlier SDL tasks create a Factory Loader class capable of loading multiple enemies with different sprites and movement speeds, given only the name of the Location as a string.

Expected Output

Repository

1. Code
2. Spike Report

Canvas

1. Spike Report

Notes

- You will need to think about what common functionality each Location must have, and where and how they can add new functionality.
- You will need to think about how you can derive the type of the Location to be loaded based on the string passed in. This Stack Overflow thread enumerates a range of options:
<http://stackoverflow.com/questions/582331/is-there-a-way-to-instantiate-objects-from-a-string-holding-their-class-name>
- You will also need to think about what to do if an invalid string is passed in.