

Spike: 9**Title:** Composite Pattern**Author:** Steven Efthimiadis, 1627406**Goals / deliverables:**

The goal is expanding on the entities and their properties in the Zorkish Adventure game. Now you should also add a way to modify and observe these entities and expand the command processor to accommodate the changes.

To create this spike, you require:

- Spike 8
- Basic understanding of Composite Patterns

Technologies, Tools, and Resources used:

List of information needed by someone trying to reproduce this work

- Visual Studio 2015
- Composite Pattern
 - https://en.wikipedia.org/wiki/Composite_pattern

Tasks undertaken:

- Create an entity you can modify. Bag:
 - Can open and close
 - Add/ Remove items
 - Print all items
- Add new command objects to accommodate the change
- Update the Command Manager.

What we found out:

- When you are creating the bag. You can add a Boolean value to check if the bag is open or closed. This saves a lot of time creating if statements to check.

Open issues/ risks:

- Pointers cause too much trouble. If a variable doesn't need to be a pointer, then don't make it a pointer. If you are not sure if you need a point for it? Don't make it a pointer until you are required to make it a pointer.