**Spike:** 13

**Title:** Composite Pattern

**Author:** Ben Holmes, 103024841

**Goals / deliverables:**

* Update adventure world file and classes to allow entities composed of other entities, for example a bag with items in it.
* Commands that interact with these entities of entities:
  + LOOK IN
  + TAKE \_ [FROM \_]
  + PUT \_ IN \_
  + OPEN \_ [WITH \_]

**Technologies, Tools, and Resources used:**

* Visual studio 2022
* Word
* Spike 12 (as base)

**Tasks undertaken:**

* Plan the items (first bit in what we found out)
* Create entity child/subclasses
* Update Json to allow for these bags (and make the contents throughout the locations better test data)
* Update LOOK AT to account for same item in inventory and location (maybe different ids?)
* Make Look in
* Make new commands

**What we found out:**

Planned composite entities:

Bag:

* Doesn’t need opened
* Cant be locked
* Can be picked up

Pouch:

* Doesn’t need opened
* Can be locked
* Can be picked up

Barrel:

* Needs opened
* Cant be locked
* Cant be picked up

Chest:

* Needs opened
* Can be locked
* Cant be picked up

Will need 4 different subclasses considering the combination.

First: