Assignment 2 Design Rationale: CL\_AppliedSession10\_Group1

Anthony Lew 33143218 – ADD NAMES HERE + IDs

Requirement 1

Requirement 2

Alien Bug and Suspicious Astronaut have been implemented as Monster classes from assignment 1, to accommodate alien bug, the attack behaviour has been removed from the monster class. This is beneficial as the parent monster class provides all the needed common functionality such as choosing an action per turn. However, statuses and behaviours must be added for each actor individually which may cause repetition such as for wander behaviour.

Alien Bug generates a name using a static method with random as only the class needs to know how to generate a name for each instance.

The Alien Bug uses follow behaviour and pick up behaviour each of which implements Behaviour. Follow behaviour attempts to detect a followable actor (denoted by the status FOLLOWABLE\_BY\_ALIEN) within all possible Exits after which the behaviour ‘activates’ and begins following the actor using move actions. Similarly pick up behaviour attempts to detect an item on the Actor’s location which if found will be picked up using a pickup action. This approach follows the single responsibility principle where the behaviours detect the appropriate situation while the actions execute the actual functionality. This also follows open-closed principles as the actor to follow can be changed using the injected status.

Requirement 3

Requirement 4