

**FIT2099 Assignment 1 Design Rationale**

Team: **Tute03Team100**

* *To explain the choices we made, must explain both how your proposed system will work and why you chose to do it that way*

We created:

* **Classes**: Brachiosaur, Allosaur, Bush, Fruit, VendingMachine, LaserGun, MealKit, Egg, Corpse
* **Interface**: DinosaurInterface

*\*Classes in the UML Class diagram without any packages are part of the edu.monash.fit2099.game package.*

Explanation:

**DinosaurInterface interface (implemented by class Stegosaur, Brachiosaur and Allosaur)**

We decided to create this new interface, as the dinosaurs have some additional features that a Player Actor doesn’t have, for example food level, hunger and breed ability. With this, we could add additional features/attributes to only some particular kind of Actor instances (the dinosaurs), but still maintaining the shared attributes of all Actor instances (eg hitPoints, displayChar),

**VendingMachine and some classes**

Dependency relationship among class VendingMachine and classes LaserGun, MealKit, Egg and Fruit, since VendingMachine only needs to return new instances of these classes, and do not need to store them as attributes.

**Corpse class**

The Corpse class would extend the PortableItem class, since it is portable. When a dinosaur dies, a new Corpse instance would be created. Also depending on the type of the dinosaur, the corpse will have different displayChar, and will remain in the game for different periods of time (unless picked up by Player and stored in inventory).

We’ve decided that Stegosaur corpses will remain for … turns, Brachiosaur … turns, and Allosaur … turns