**FIT2099 Assignment 3 Star War: Design Rationale**

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1. Jawa Sandcrawler

For the Sandcrawler, first I create a SandcrawlerWorld extends from SWWorld. The SandcrawlerWorld has initializeWorld function for the Sandcrawler with smaller grid. I create a Door class extends from the SWEntity. Inside the initializeWorld function in the SandcrawlerWorld classes, I instantiate the Door class, to show that there is a exit in the small grid. I also create a Enter class and Exit class. Both of them extend from the SWAffordance. The Enter class is used by any actor with force ability to enter the Sandcrawler. I add the Enter affordance in the Sandcrawler class. The Exit class is used by the actor with force ability to exit the small grid and return back to the world. I add the Exit affordance in the Door class.

I create a Sandcrawler class which extends from SWActor. Sandcrawler class has SandcrawlerWorld. I have a collectDroid method in Sandcrawler class so that the Sandcrawler can collect the Droid which in the same location with it. The Sandcrawler will patrol like Ben Kenobi but only moves every second turn. To implement this, I have a move attribute. Each time the Sandcrawler moves, the move attribute will increase by one. If the move attribute %2 equals to zero, then the Sandcrawler will move.

In the SWWorld, I have a SWGridController. This is used to change the grid in the controller when the player enter and exit the Sandcrawler. In SWGridController, I also create a new method changeWorld to change the grid of the grid controller.

1. Make Reservoirs Damageable
2. Grenade

**FIT2099 Assignment 3 Star War: Responsibilities of Classes in UML**

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1. Jawa Sandcrawler

In the UML, the Sandcrawler class is created under the package actors and extended from SWActor. The role for the Sandcrawler is to collect the Droid. The actor with force ability can enter the Sandcrawler when he/she is in the same location of the Sandcrawler. If the Sandcrawler finds a Droid in its ocation, the Droid is taken inside the Sandcrawler.

There is also a SandcrawlerWorld class which extended form SWWorld. The SandcrawlerWorld class is responsible for the world(grid) inside the Sandcrawler. It has a method called initializeWorld which will initialize the world to a smaller grid. All the Droids collected by the Sandcrawler will be in the small grid. The SWGridController is used to control the grid, get user decisions and draw the grid out. I present it here as I need to use it to change the grid when the actor with force ability entering or exiting the Sandcrawler. The SWGridController will use the SWGridTextInterface to show the grid. Also, the SWWorld is responsible for all the placing of items and actors in the world. I create a attribute uiController, method setController and getController to get the controller from Application and use it to change the grid.

The Door class in the UML is under package entities and extended from SWEntity. The role of the Door class is used by the actor with force ability to exit the small grid. There are two classes extended from SWAffordance in package actions: Enter class and Exit class. The responsibility of Enter class is used by the actor with force ability to decide whether to enter the Sandcrawler or not. Same to the Exit class, it is used by the actor with force ability to decide whether to exit the small grid in Sandcrawler or not.

1. Make Reservoirs Damageable
2. Grenade