Deliverable 1

To start this assignment, you will need to design three classes. The three classes are Actor, Item, and MapCell. These classes will need to be in a UML document.

# Actor

Actors are interactive items in the game that can attack or be attacked. Actors have life points. Actors also have a name, title, attack speed, and a position on the map.

Actors have a name and a title. Some possible examples are:

Bob the Awesome

Robin of the Hood

Mary the Maiden of Doom

The name is always capitalized and the titles are title cased. You should be able to get either the name or the name with title from the object. For example, “Bob” or “Bob the Awesome”. There needs to be a way to get either format.

Actors have a number of points that indicate their life level. We will call these hit points or HP for short. Actors have a maximum number of HP that they are allowed, they can never go over this amount. When an actor is injured HP are taken away. If the actor ever reaches 0 HP, it is considered dead. The number of HP can never go below 0.

After initially setting the HP, it can only be modified by the Actor taking damage (HP is decreased) or getting healed (HP is increased).

Actors have a speed at which they can attack. If they have a higher speed than another actor, they get to act first.

All actors have an x and y coordinate as to where they are in the playing field. The Actor’s position can only be modified by telling the actor to move. Actors need to be able to move up, down, left, and right from their position.

An Actor’s HP, Name, Title, Starting Position, and Attack Speed should be set with a constructor.

# Item

Items are things that actors will use. Items have a name and a value that is how much they affect actors.

Some possible examples are:

Sword

Healing Potion

Poison

Axe

# MapCell

MapCells are locations that an Actor or Item may be. Whenever a player discovers a MapCell, it becomes visible.

MapCells will need to track as to whether or not they have been discovered by the player.

MapCells will need to track of whether or not an enemy actor (called a Monster) is in that cell.

MapCells will need to track of whether or not an item is located in that cell.

Example:

Person

String \_FirstName

String \_LastName

int \_Age

Person

Person(newFirst, newLast, newAge)

FirstName

LastName

Age

FullName