

The Requirement 3 UML features most of the existing classes from both the engine and game package. The new classes created are inside the package “game.items” and also the NurseJoy class. The role of the new items classes is to hold the unique and similar properties of each item, and allow the items to be initialised into the game world. The NurseJoy class is responsible for holding the transaction of “candies” in exchange for other items. The new classes in game.items extend the abstract “Item” class, as they share some common properties and the use of repeated code is kept to a minimum. The items also interact with the Player class which extends the abstract “Actor” class. The relationships that exist between the Actor class and game.items classes are there to show that the items have an effect on the Pokémon, who are also Actors. A separate class for Pokémon could be created to make this clearer and help obey the Single Responsibility Principle as currently the Actor class is responsible for many different actors. However, a separate class for Pokémon was not included as this would make the diagram more complex and harder to read. The actions for dropping and picking up the items are also shown, and the abstract Ground class is included as this will hold the items that are dropped.