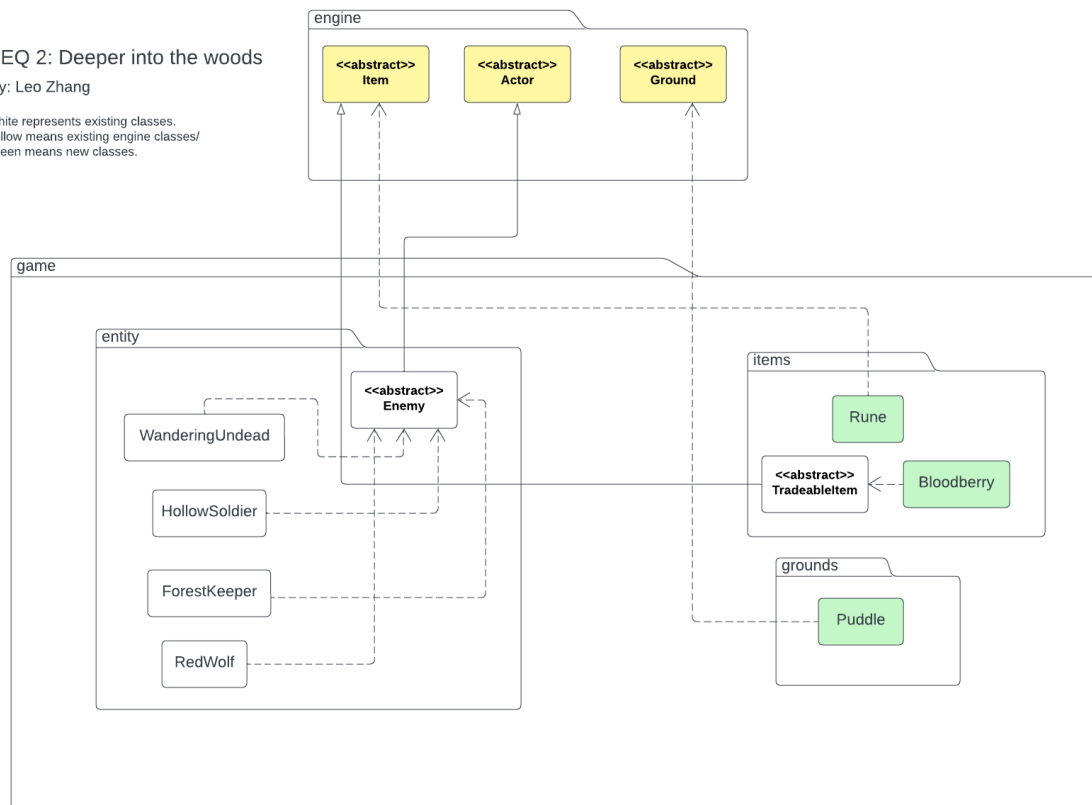REQ 2: Deeper into the woods

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White represents existing classes.
Yellow means existing engine classes/
Green means new classes.

The above UML diagram demonstrates the functions of requirement 2. In this requirement, it requires the addition of three new classes. These three are the rune class, which represents the rune item that allows players to increase their balance from killing enemies, the puddle class which is a ground tile that has a special interaction with the player and the bloodberry item which is an item that when consumed allows the player to permanently increase their maximum health by 5.

There aren't too many additions within this requirement as they most include increasing functionality of the existing game and don't interact too much with the other classes.

The rune class operates as an extension of the item class as it is a droppable item which is sourced from enemies when they are killed. This is a straightforward extension as it is an item which cannot be traded. It does utilise the consumable and droppable interface as it is an item which can be interacted with and consumed in order to fulfill its purpose as the player can only increase their balance once the item is consumed.

The bloodberry class works similarly with the key difference that it is a tradeable item as in the later requirements, it can be traded and sold to the wandering traveller. It also implements the interface of consumable and droppable as it is an item which can be picked up and dropped from the overworld, and consumed.

The puddle class is an extension of the ground abstract class as it is a ground tile. However, due to the special interaction that it has it implements the consumable interface as it works functionally similar to how a consumable item operates. The key difference here is however that it never needs to be in the player's inventory to be used, and as such can be interacted with if the player is standing on top of the tile. As it isn't an item, it doesn't get used up once interacted with and the player actor may freely interact with it.