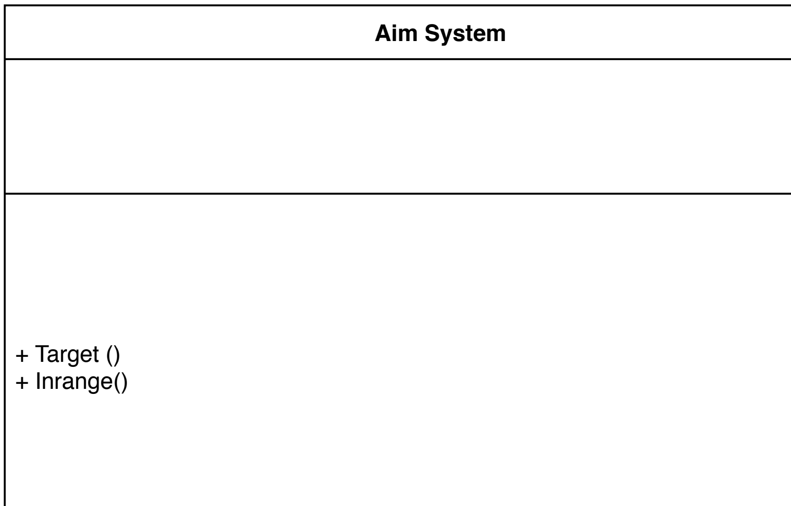
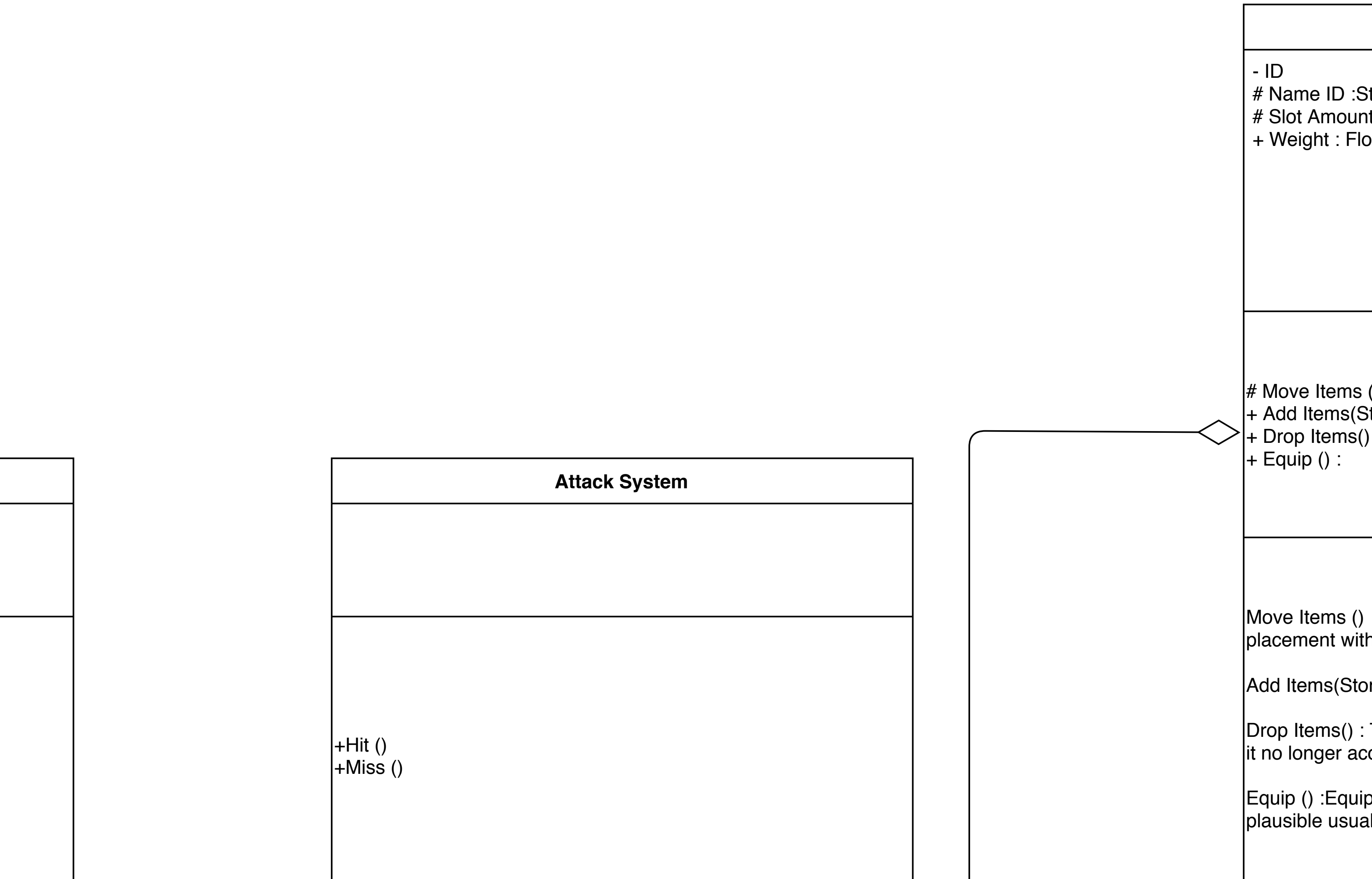

Aim System
+ Target ()
+ Inrange()



Attack System

+Hit ()
+Miss ()

- ID
# Name ID :St
# Slot Amount
+ Weight : Flo

# Move Items (
+ Add Items(St
+ Drop Items()
+ Equip () :

Move Items ()
placement with

Add Items(Stor

Drop Items() :
it no longer acc

Equip () :Equip
plausible usual

Inventory

tr
t : Int
at

() :
tore) :
 :

: Action of changing the item position in the slots, essentially moving the item
hin the inventory.

re) : works in conjunction to the pickup action taking and storin1g items into the inventory.

The act of removing an item from the inventory and placing it where ever the player currently is in the world position, making
cessible unless the player picks it back up.

the action of moving the items/weapons/amour into primary slots of the player for quick access and application/use not
lly by just storing it in the inventory.

Cast

- ID
+ Name ID : Str
+ Race ID : Str
+ World Position X : Float
+ World Position Y : Float
+ World Position Z : Float
+ Level: Int
- Inventory : Int

+ Idle () : Int
+ Walking () : Int
+ Running () : Int
+ Patrolling () : Int
+ Searching/Looking () : Int
+ Attacking () : Int
+ Dodging () : Int
+ Guarding (Defensive) () : Int
+ Tired (Sleep) () : Int
+ Drop () : Int
+ Parry () : Int

Description:

Idle () : Idle is the default state of the player and AI, when no other state is initiated, with the player simply standing in place doing nothing.

Walking () : Walking is a state used to represent the player or AI moving at a moderate pace, altering the Worldposiiton of the player and adding to the X,Y,Z values when set.

The reason behind the cast
it as a placeholder for mo
functions that can be inher
by multiple objects/classes
efficient since the Player,M
Boss classes/objects have s
apply the same
functions,methods,vari

+ Hungry (E
+ PickUp ()
+ Drinking (

class is to use
ethods and
ited and used
s as it is more
Mob,NPC and
similarities and
e
ables,etc.

Cast Additons

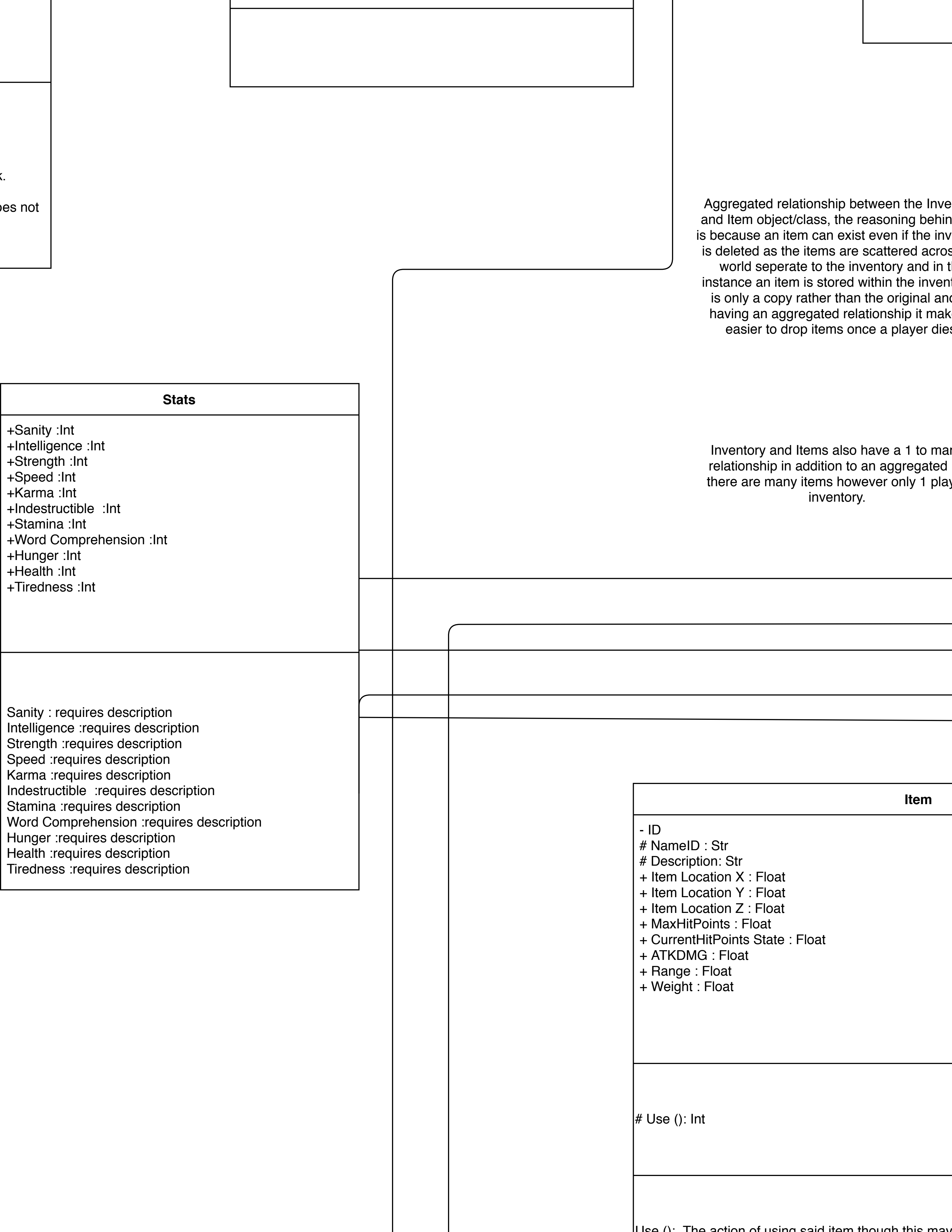
Eat) ()

()

Target (): Target action finds and focuses on a certain AI/enemy for an attack

Inrange(): Checks whether any AI are in range for an attack, however this do
effect whether the player attacks.

Currency system



k.

oes not

Aggregated relationship between the Inve
and Item object/class, the reasoning behin
is because an item can exist even if the inv
is deleted as the items are scattered acros
world seperate to the inventory and in th
instance an item is stored within the invent
is only a copy rather than the original and
having an aggregated relationship it make
easier to drop items once a player dies

Inventory and Items also have a 1 to man
relationship in addition to an aggregated
there are many items however only 1 play
inventory.

Stats

+Sanity :Int
+Intelligence :Int
+Strength :Int
+Speed :Int
+Karma :Int
+Indestructible :Int
+Stamina :Int
+Word Comprehension :Int
+Hunger :Int
+Health :Int
+Tiredness :Int

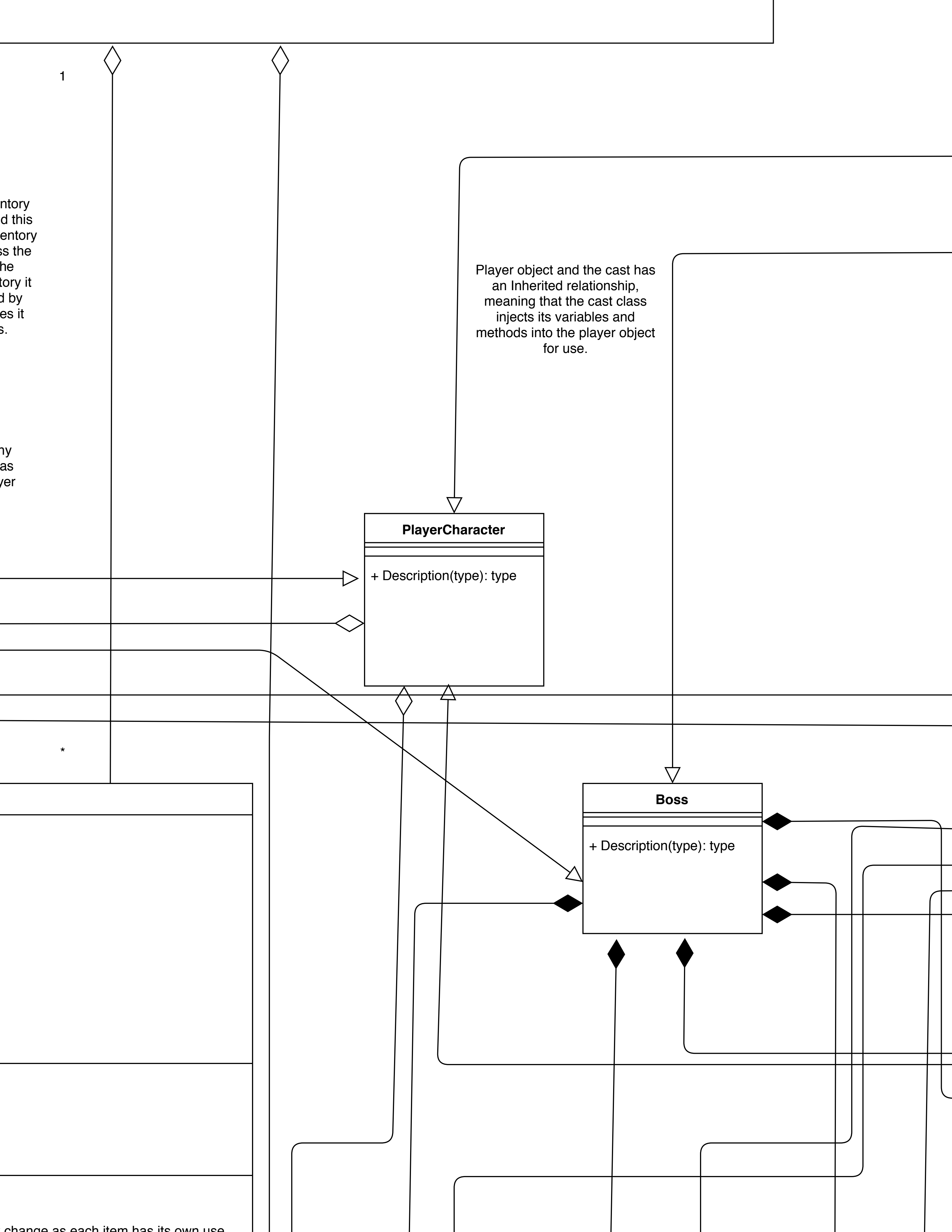
Sanity : requires description
Intelligence :requires description
Strength :requires description
Speed :requires description
Karma :requires description
Indestructible :requires description
Stamina :requires description
Word Comprehension :requires description
Hunger :requires description
Health :requires description
Tiredness :requires description

Item

- ID
# NameID : Str
# Description: Str
+ Item Location X : Float
+ Item Location Y : Float
+ Item Location Z : Float
+ MaxHitPoints : Float
+ CurrentHitPoints State : Float
+ ATKDMG : Float
+ Range : Float
+ Weight : Float

# Use (): Int

Use (): The action of using said item though this may


1
ntory
d this
entory
ss the
he
tory it
d by
es it
s.
ny
as
yer
PlayerCharacter
+ Description(type): type
*
Boss
+ Description(type): type
change as each item has its own use

Player object and the cast has an Inherited relationship, meaning that the cast class injects its variables and methods into the player object for use.

of the player and adding to the X,Y,Z values when set.

Running () :Running is a state that works similarly to the walk state except the rate in which the player and AI moves is increased with the speed of the X,Y,Z values changing quickening.

Patrolling () : Patrolling state is a state primarily for AI used to illustrate the AI following a set pre-mapped path repeating and backtracking the path upon completion. The difference between patrolling and the move states 'running' and 'walking' is that the patrolling state functions by having the AI following a set-path rather than a free form roam system.

Searching/Looking () : Searching/Looking is a state used as reference for the AI as to the player position,however based on range (and terrain if implemented) may effect whether the AI finding said player is successful, at the same time it and AI in relation to looking for items, imitating the action.

Attacking () : Attacking state or action used to show and set a player or AI into an attacking phase, relating to the battle system. In this instance the fighting mechanics will see the player being able to attack regardless of the situation, however to properly attack an aim mechanic and something similar to a vat system from fallout 3 will be implemented separating enemy body-parts in sections changing the damage inflicted based on the part chosen and probability of hitting based on the damage inflicted.

Dodging () : Dodging is an action or state that can be initiated upon being caught in a fight, a deciding factor in whether a player or AI is hit as upon initiating it is possible to dodge an attack thus not losing health.Though certain stats such as stamina may still go down as is the cost of initiating the action.

Guarding (Defensive) () : Similar to the dodge state, the defensive or guarding action nullify's or reduces damage, however unlike dodging, guarding requires the player to take the hit head on meaning that if the level difference/ stats are too large it will not make much of an impact.

Tired (Sleep) () : Apply's to both AI and players, this state links to the tiredness stat, which also factors in and affects stamina and sanity. Tired or sleep action is where a player/AI begins the act of sleeping for a period of time not moving, essentially doing nothing, however other stats can still change during this phase.

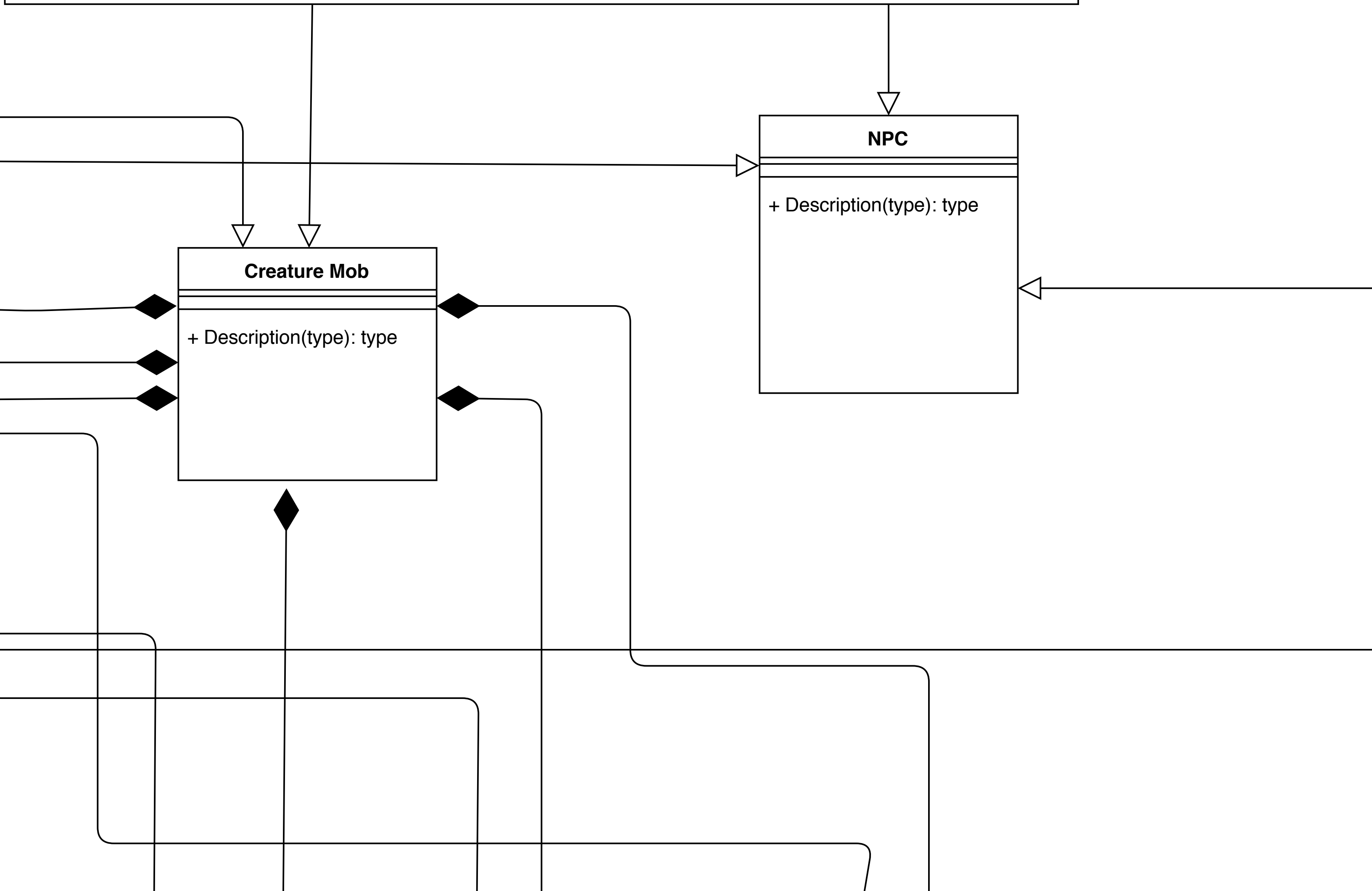
Drop () : Drop state relates to the action of removing and placing/dropping an item on the floor. In this instance the item would drop at a certain X and Y position and upon being in range or on that position it would be possible to pick it back up.

Parry () : Parry is the action of warding off (a weapon or attack) with a countermove.Thus turning a bad situation into a favorable one.

Hungry (Ea
to ensure th

PickUp ():

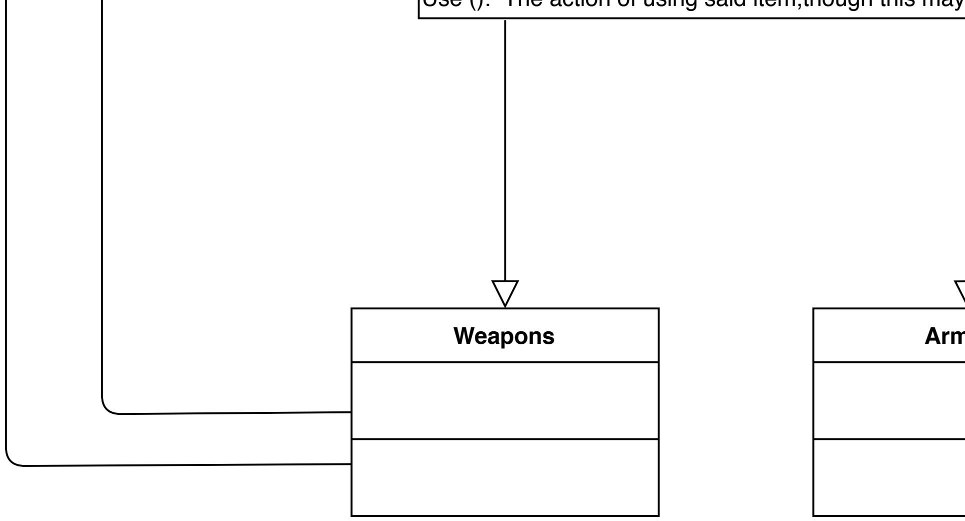
Drinking ()



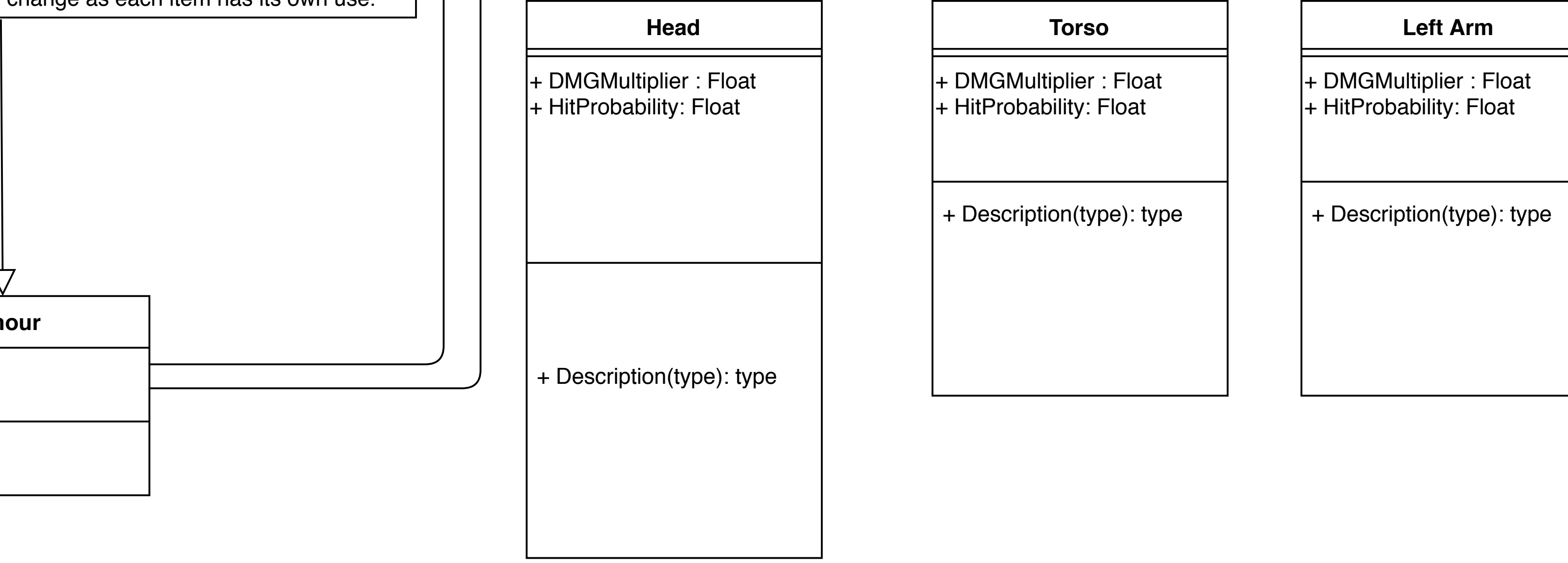
at) ():Action of eating, applies to NPC's and Players excluding enemy's and bosses,so as
nat the player will actually encounter enemy's.

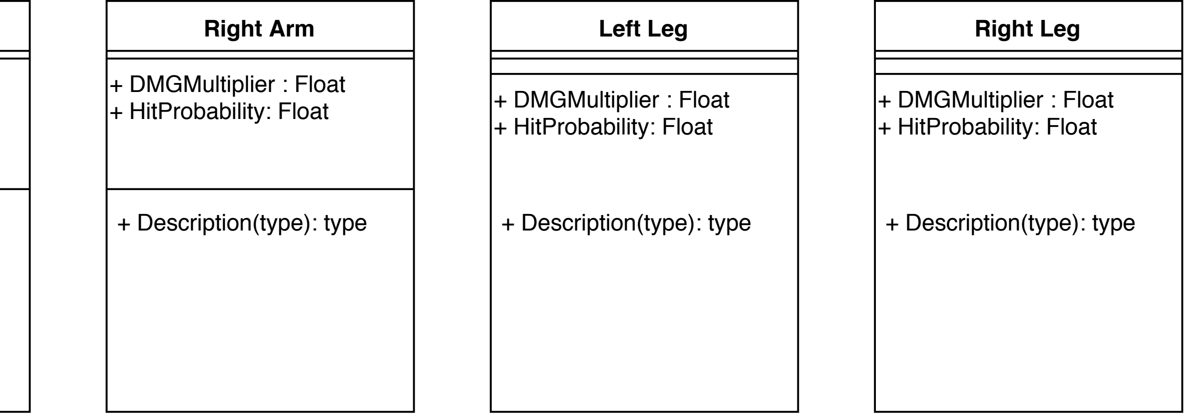
Action of taking an item not previously stored within the internal inventory and storing it.

:Drinking associates with the real-life act of drinking used to represent said act.



Use (): The action of using said item,though this may


change as each item has its own use.
nour
Head
+ DMGMultiplier : Float
+ HitProbability: Float
+ Description(type): type
Torso
+ DMGMultiplier : Float
+ HitProbability: Float
+ Description(type): type
Left Arm
+ DMGMultiplier : Float
+ HitProbability: Float
+ Description(type): type



Right Arm

+ DMGMultiplier : Float
+ HitProbability: Float

+ Description(type): type

Left Leg

+ DMGMultiplier : Float
+ HitProbability: Float

+ Description(type): type

Right Leg

+ DMGMultiplier : Float
+ HitProbability: Float

+ Description(type): type