VILLIAN

Name: string

Health: int

Energy: Int

Shield: shield

Attack()

Defend()

Take damage()

Alive()

Is_alive()

attacker

Weapon: weapon

Attack()

Defend()

defender

weapon

Name: string

Energy: int

Damage: int
resources: int

Description: string

Special functions()

shield

Name : string

Energy: int

Resources: string

Gruweapon

In this UML class diagram:

- The "Villain" class represents the base class for all villains and contains common attributes and methods such as (name, health, energy, shield, attack(),defend(), take_damage(), and is_alive())

- The "Attacker" class represents a specific type of villain that can attack. It inherits from the "Villain" class and has an additional attribute `weapon` of type `Weapon`. It overrides the (attack() and defend()) methods.

- The "Defender" class represents a specific type of villain that can defend. It also inherits from the "Villain" class and has no additional attributes. It overrides the(attack() and defend()) methods.

- The "Weapon" class represents a weapon used by villains. It has attributes such as (name, energy, damage, resources, and description). It also has a method `special_funcTion()` which can provide additional information about the weapon's special functions.

    - The "Shield" class represents a shield used by villains. It has attributes such as (name, energy_save , resources, and description).

    - The "GruWeapons" class represents a specific type of weapon used by Gru. It inherits from the "Weapon" class and has no additional attributes or methods.