The UML Class Diagram for Assignment 3

Pokemon

-terrain: ownTerrain
-health: ownHealth
-powerup: PowerUp
-HP: int
-Damage: const int
-Recharge: const int
-PowerUp_Chance: const float
-Name: const string

+Pokemon()
+Pokemon(int, const int, const int, const float, string)
+ ~Pokemon()
+getters
+setters

ElectricPokemon

-terrain: ownTerrain
-health: ownHealth
-powerup: PowerUp
-HP: int
-Damage: const int
-Recharge: const int
-PowerUp_Chance: const float
-Name: const string
-confusion: Confusion

+pokemon()
+pokemon(int, const int, const int, const float, string)
+ ~pokemon()
+getters
+setters

PsychicPokemon

-terrain: ownTerrain
-health: ownHealth
-powerup: PowerUp
-HP: int
-Damage: const int
-Recharge: const int
-PowerUp_Chance: const float
-Name: const string

+pokemon()
+pokemon(int, const int, const int, const float, string)
+ ~pokemon()
+getters
+setters

<<enumeration>> ownTerrain

yes
no

<<enumeration>> Health

yes
no

<<enumeration>> Confusion

yes
no

<<enumeration>> PowerUp

yes
no

Arena

-e: *ElectricPokemon
-p: *PsychicPokemon
Terrain: string

+Arena()
+~Arena()
+addPokemon(char, string, int, int)
+simulateBattle()
+spawnTerrain()
+restartTerrain()
+printRoundStats()
printMatchResults()
get_Terrain(): string
set_Terrain(string)
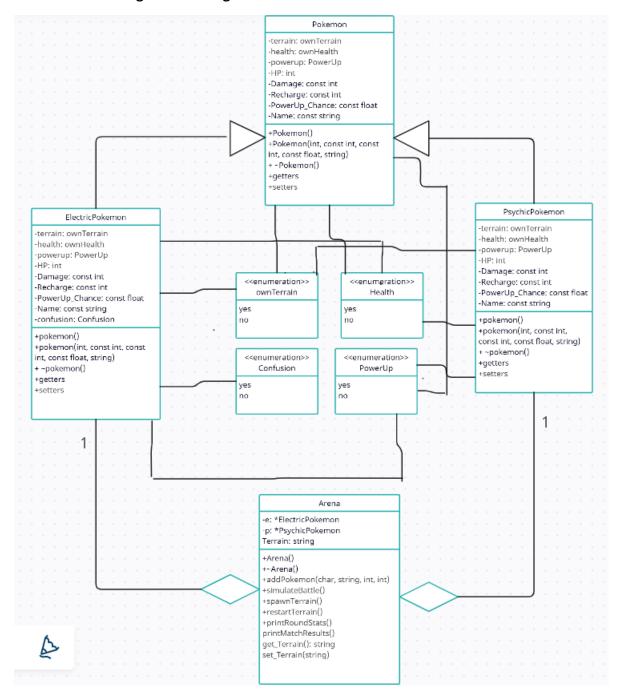
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Some Details and Examples

The constructor of the ElectricPokemon class overrides the constructor of the Pokemon class by adding a Confusion type variable.

The enumeration class objects are parameters of setter methods of pokemon classes.