TrainerManager

- _trainers: AbstractTrainer[]
- _next_available_id: int
- filepath: string

+ __init__(filepath: string)
+ add(Trainer:AbstractTrainer): int
+ get_trainer_by_id(id:int): AbstractTrainer
+ get_all(): AbstractTrainer[]
+ get_all_by_type(type:string): AbstractTrainer[]
+ get_all_by_location(location:string): AbstractTrainer[]
+ update(_trainer:AbstractTrainer)
+ delete(id:int)
+ get_stats(): TrainerStats
- _read_entities_from_file()
- _write_entities_from_file()
- _abstracttrainer_validator(trainer:AbstractTrainer)
- _int_validator(arg:int)
- _str_validator(arg:str)

AbstractTrainer

- _id:int
- _name:string
- _pokemon_team:dict
- _trainer_class:string
- _pokecoins:int
- _location:string

+ *get_type(): string*
+ *get_details(): string*
+ *to_dict(): dict*
+ get_name(): string
+ get_pokemon_team(): dict
+ get_trainer_class(): string
+ get_location(): string
+ get_pokecoins(): int
- _set_id(id:int)
- _get_id(): int
- _str_validator(arg:string)
- _int_validator(arg:int)
- _pokemon_team_validator(arg:dict)

TrainerStats

- _num_trainers:int
- _num_gym_leader:int
- _num_regular_trainer:int
- _num_have_partner: int
- _num_per_location: int

+ get_num_trainers(): _num_trainers:int
+ get_num_gym_leader(): num_gym_trainer:int
+ get_num_regular_trainer(): _num_regular_trainer:int
+ get_num_trainer_have_partner(): int
+ get_num_per_location(): int

RegularTrainer

+ TRAINER_TYPE: string
+ MOVEMENT_TYPE_DICT: dict
- _movement_type: string
- _phone_num:boolean
- _have_partner:boolean

+ get_type(): string
+ get_details(): string
+ to_dict(): dict
+ get_movement_speed(): float
+ have_phone_num(): boolean
+ have_partner(): boolean
- _str_validator(arg:string)
- _boolean_validator(arg:boolean)

GymLeader

+ TRAINER_TYPE: string
+ TRAINER_CLASS:string
- _badge:string
- _element:string
- _prize:string

+ get_type(): string
+ get_details(): string
+ to_dict(): dict
+ get_badge(): string
+ get_element(): string
+ get_prize(): string
- _str_validator(arg:string)