

## Animal

- \_animalId : String
- \_animalName : String
- \_animalSpecies : Species
- \_animalHealthHistory : List <String>
- \_animalVaccinationHistory : List <VaccinationEvent>
- \_animalHabitat : Habitat
- + calculateAnimalSatisfaction(habitat : Habitat) : int

## Habitat

- \_habitatId : String
- \_habitatName : String
- \_habitatArea : int
- \_habitatPopulation : int
- \_habitatNumberOfHandlers : int
- \_speciesAdequacy : Map <String, int>
- \_habitatTrees : List <Tree>
- \_habitatAnimals : ~~List <Animal>~~ Map <String, Animal>
- + countEquals(a : Animal) : int
- + countDifferent(a : Animal) : int

## Species

- \_speciesId : String
- \_speciesName : String
- \_speciesAnimals : <sup>Set</sup> ~~Map~~ <String, ~~Animal~~>
- \_speciesNumberOfVets : int
- \_speciesNumberOfAnimals : int

« abstract »

Employee

- employee Id: String
- employee Name: String
- employee Satisfaction Calculator: SatisfactionCalculator

Vet

- Vet Vaccinable Species: Map < String, Species >
- Vet Vaccination History: List < Vaccination Event >

Handler

- handler Responsible Habitats: Map < String, Habitat >

« interface »

SatisfactionCalculator

calculate Satisfaction (employee: Employee): int

VetStrategy

HandlerStrategy

« interface »

Season

calculate Cleaning Effort (tree: Tree): int

get Biological Cycle (tree: Tree): String

Winter

Summer

Fall

Spring

## Vaccine

- \_VaccineId: String
- \_vaccineName: String
- \_numberOfApplications: int
- \_vaccinableSpecies: Set <String>
- + incrementNumberOfApplications(): void

## VaccinationEvent

- \_vaccine: Vaccine
- \_vet: Vet
- \_species: Species
- \_effect: String
- + calculateEffect(): void

<<abstract>>

## Tree

- \_treeId: String
- \_treeName: String
- \_treeAge: int
- \_treeNumberOfStationsLived: int
- \_treeBaseCloningDifficulty: int
- \_treeCurrentSeason: Season
- + <<abstract>> getType(): String

EvergreenTree

DeciduousTree



## Hotel Manager

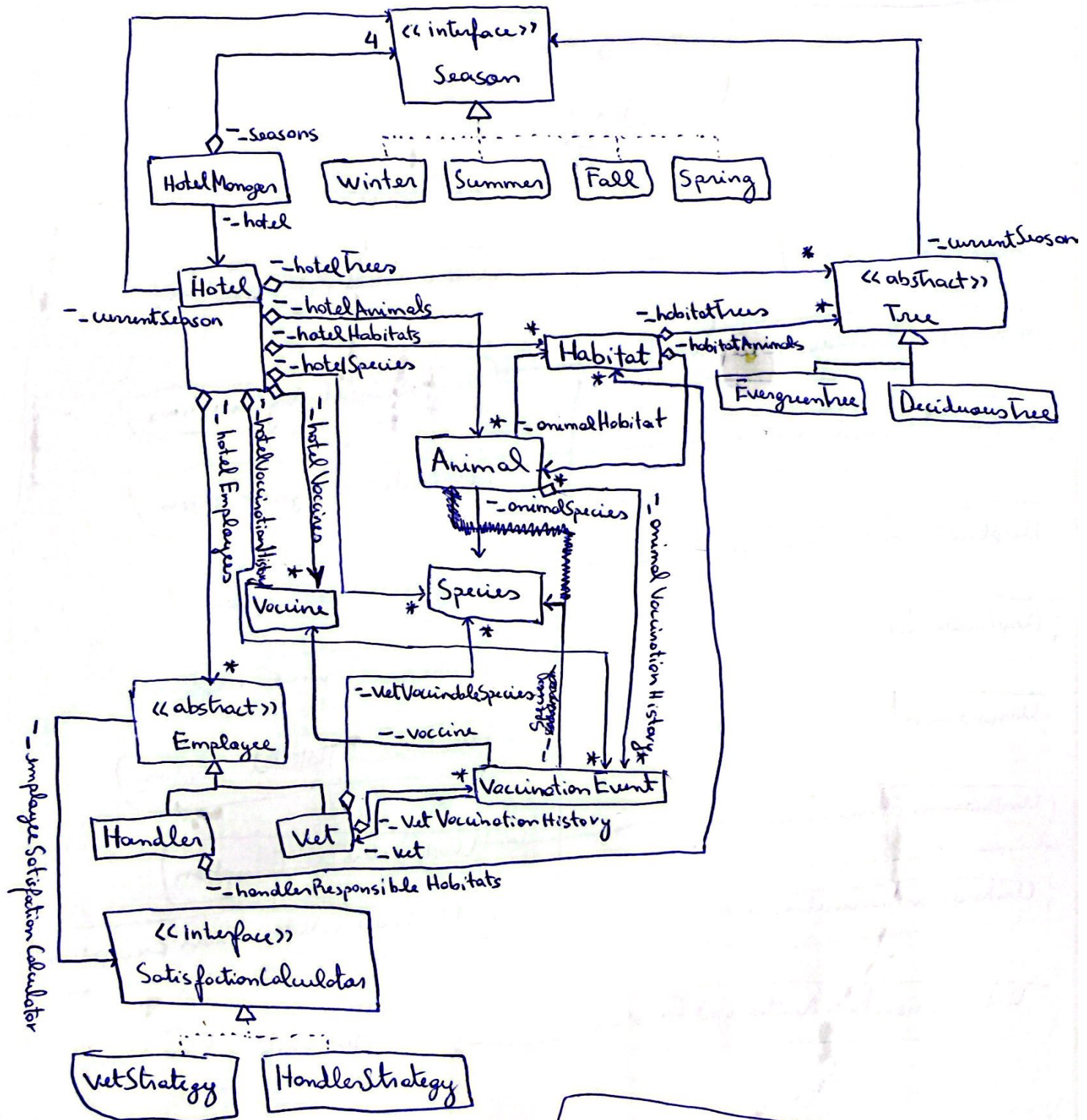
- \_hotel : Hotel
- \_seasons : Season[]
- + Save() : void
- + SaveAs(filename : String) : void
- + load(filename : String) : void
- + create() : void
- + advanceSeason() : void
- + ShowGlobalSatisfaction() : int

## Hotel

- hotelAnimals : Map <String, Animal>
- ~~vac~~ hotelVaccines : Map <~~String~~, Vaccine>
- hotelHabitats : Map <String, Habitat>
- hotelSpecies : Map <String, Species>
- hotelEmployees : Map <String, Employee>
- hotelTrees : Map <String, Tree>
- hotelVaccinationHistory : List <VaccinationEvent>

- + ShowAllAnimals() : String
- + ~~add~~<sup>regist</sup>Animal(id : String, name : String, species : String, habitat : String) : void
- + transferAnimal(animal : String, habitat : String) : void
- + calculateAnimalSatisfaction(animal : String) : ~~int~~
- + ShowAllEmployees() : String
- + registEmployee(id : String, name : String, type : String) : void
- + newResponsibility(employee : String, responsibility : String) : void
- + removeResponsibility(employee : String, responsibility : String) : void
- + calculateEmployeeSatisfaction(employee : String) : ~~int~~
- + ShowAllHabitats() : String
- + registHabitat(id : String, name : String, area : ~~int~~) : void
- + changeArea(habitat : String, area : int) : void
- + changeSpeciesAdequacy(habitat : String, species : String, influence : String) : void
- + plantTree(habitat : String, tree : String, age : treeAge, clearingDifficulty : int, type : String) : void
- + ShowHabitatTrees(habitat : String) : String
- + registVaccine(id : String, name : String, vaccinableSpecies : ~~String~~<sup>String</sup>) : void
- + vaccinateAnimal(vaccine : String, vet : String, animal : String) : void
- + ShowAllVaccinationEvents() : String
- + ShowAnimalsINHabitat(habitat : String) : String
- + ShowAnimalVaccinationHistory(animal : String) : String
- + ShowVetMedicalActs(vet : String) : String
- + ShowBalVaccinations() : String





Nota: Considero que todas as classes implementam **Serializable**.  
 Esta Nota substitui os inúmeros setas de implementação.

João Silva 106883 - Declaro por minha honra que este diagrama foi redigido apenas pelos elementos que constituem o grupo de projeto.

Rodrigo Rosa 106426 - Declaro por minha honra que este diagrama foi realizado apenas pelos elementos que constituem o grupo de projeto.



core  
h va - app - exceptions

java.lang.Exception

Exception



Import File Exception

Unavailable File Exception

Missing File Association Exception

Unrecognized Entry Exception

Duplicate Animal Exception

Duplicate Employee Exception

Duplicate Habitat Exception

Duplicate Tree Exception

Duplicate Vaccine Exception

Unknown Animal Exception

Unknown Employee Exception

Unknown Habitat Exception

Unknown Species Exception

Unknown Tree Exception

Unknown Vaccine Exception

Unknown Veterinarian Exception

Veterinarian Not Authorized Exception

No Responsibility Exception