Problem identification

Una veterinaria pide realizar un programa que desarrolle las siguientes especificaciones: registrar nuevos clientes con sus mascotas, es decir, que el sistema almacene los datos de un usuario con su respectivo animal. Realizar una hospitalización que consiste en hospedar a una mascota dentro de un mini cuarto de la veterinaria y al tiempo crear una historia clínica para este. Hacer un reporte de todas las historias clínicas que existan en el momento y mostrar este reporte al usuario. Además, cuando el usuario lo requiera, debe mostrar los datos de contacto de determinado cliente. Posterior a esto el programa debe calcular el costo total de una hospitalización teniendo en cuenta los días que este una mascota, el tipo de mascota y el costo por medicamentos. Por último, la aplicación debe dar de alta a una mascota, para ello debe sacar a la mascota del mini cuarto donde se encuentre y eliminar la historia clínica de dicho cuarto, pero antes debe almacenar esta en un historial de historias clínicas.

Entities

Vet

- Name
- Relation with (mini room, medical record, person)

MiniRoom

- Availability
- Relation with (Medical record)

MedicalRecord

- Symptom
- Diagnosis
- Relation with (Date, medicine, person, pet)

Person

- Name
- Id
- Address
- Phone
- Relation with (Pet)

Pet

- Name
- Age
- Weight
- Relation with (Medical record)

Date

- Day
- Month
- Year

Medicine

- Name
- Dose
- Dose cost
- Frequency

Specifications

Name	S# 1 **Sign clients with their pets**
Resume	Allows to the vet sign new clients, according to his name, id, address and phone and a pet with name, specie, age and weight.
Input	
Client: name, id, address and phone. Pet: name, specie, age and weight.	

Output
The client has been signed

Name	S# 2 **Hospitalization**
Resume	Allows to know if the mini room is available to get a pet in and then create a medical record.
Input	
A pet, a mini room	
Output	
A new pet has been introduced to a mini room and its medical record has been created	

Name	S# 3 **Report of medical records**
Resume	Implement a complete report of all the medical record of the hospitalized patients at the moment
Input	
<Any>	
Output	
The report has been created	

Name	S# 4 **Contact information of the owner**
Resume	Shows the contact information of the owner of the patient hospitalized using the name of the person or the animal.
Input	
The name of the person or the animal.	
Output	
“The contact information of the owner is:…”	

Name	S# 5 **Hospitalization costs**
Resume	Calculate the cost of the hospitalization, taking into account the weight, the specie and the time that the pet is in the hospitalization. Also the medicines that have been applied to the pet.
Input	
Weight, specie, days in the hospitalization and the medicine dose	
Output	
“The total cost of the hospitalization is:”	

Name	S# 6 **Pet discharged**
Resume	Allows to discharge a pet from a mini room and delete its medical record from the mini room
Input	
A pet	
Output	
“Pet discharged from the room	

Name	S# 7 **Medical records history**
Resume	Before a pet has been deleted from a mini room, allows to save its medical record in a history
Input	
The medical record of the pet	
Output	
“The medical record has been saved”	

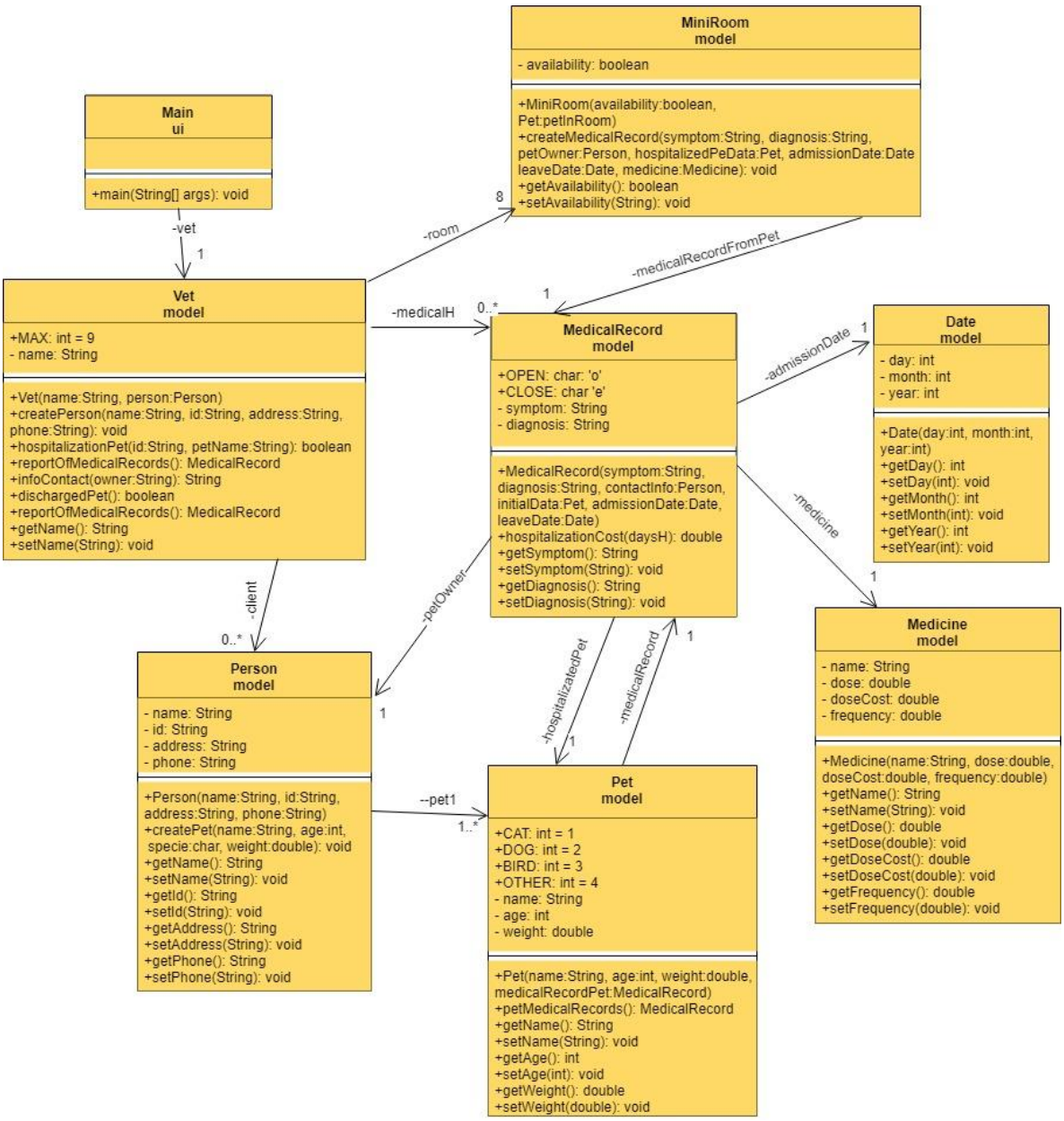
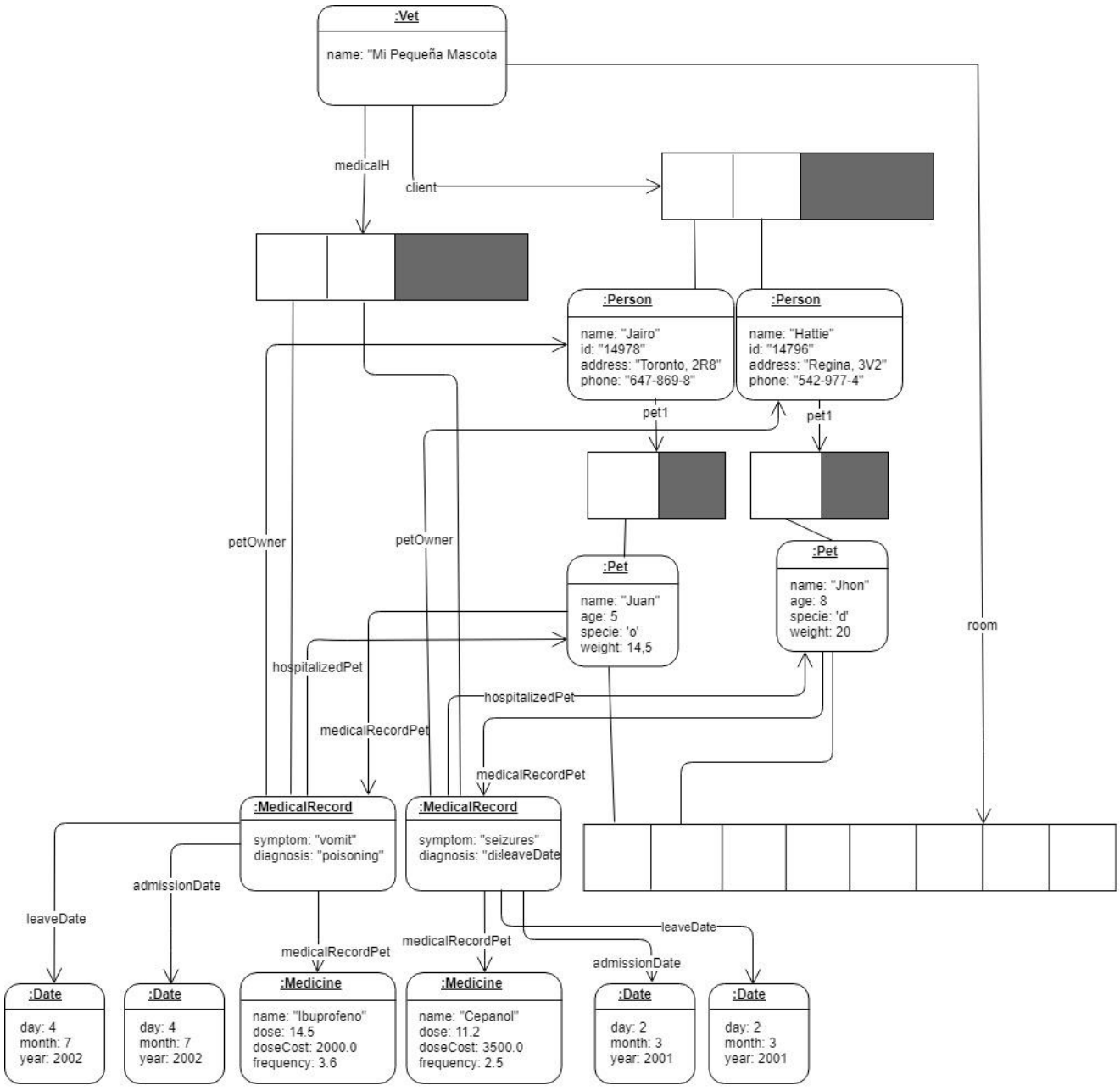
Name	S# 8 **Add old medical record to the new one.**
Resume	Whenever a new clinical history is going to be created, check in the history if a pet was already hospitalized, in case there is a previous medical history, it must be added to the new one.
Input	
A pet	
Output	
“A new medical record has been added to the patient:”	

Traceability analysis

S.	**Class**	**Method**
#1	Vet, Person	+createPerson(name:String, id:String, address:String, phone:String): void +createPet(name:String, age:int, specie:char, weight:double): void
#2	Vet	+hospitalizationPet(id:String, petName:String): boolean
#3	Vet, Pet	+reportOfMedicalRecords(): MedicalRecord +petMedicalRecords(): MedicalRecord
#4	Vet	+infoContact(owner:String): String
#5	MedicalRecord	+hospitalizationCost(daysH): double
#6	Vet	+dischargedPet(): boolean
#7	Vet	+dischargedPet(): boolean
#8	Vet	+hospitalizationPet(id:String, petName:String): boolean

S.: Specifications

Class diagram



Objects Diagram