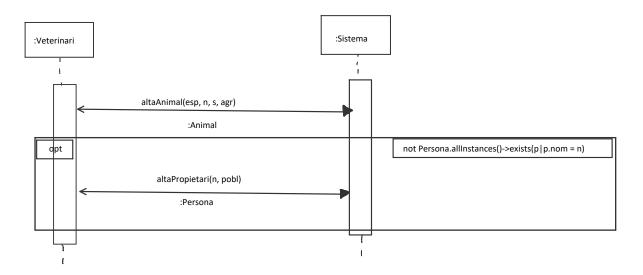
Exercici 6 - Carlos Sansón



 $\textbf{Context:} \ Sistema:: Alta Animal (esp: Especie, n: String, s: TSexe, agr: Boolean): \ Animal (esp: Especie, n: String, s:$

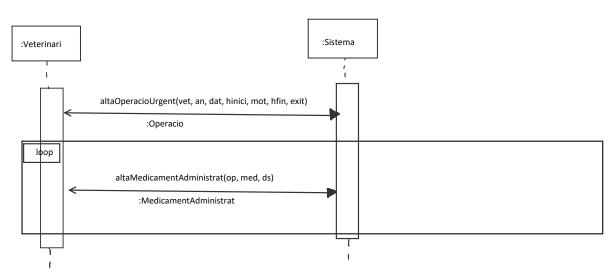
Pre: Especie.allInstances()->includes(esp)

Post: Animal.allInstances()->exists(a|a.ocllsNew() and a.nom = n and a.sexe = s and if esp.nom = Especie::Gos then a.ocllsTypeOf(Gos) and a.oclAsType(Gos).agressiu = agr endif)

Context: Sistema::altaPropietari(n:String, pobl:string): Persona

Pre:

 $\textbf{Post:} \ \ \text{Persona.allInstances()->exists(p | p.ocllsNew() \textit{ and } p.nom = n \textit{ and } p.poblaci\'o = pobl)}$



Context: Sistema::altaOperacioUrgent(vet:Veterinari, an:Animal, dat:Date, hinici:Time, mot:String, hfin:Time, exit:Boolean): Operacio

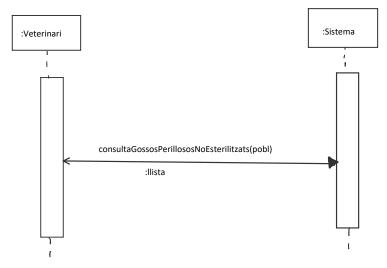
Pre: vet.especie.nom = an.especie.nom

Post: Operacio.allInstances()->exists(o | o.ocllsNew() and o.veterinari = vet and o.animal = an and o.data = dat and o.horalnici = hinici and o.motiu = mot and o.ocllsTypeOf(OperacioFinalitzada) and o.oclAsType(OperacioFinalitzada).horaFi = hfi and o.oclAsType(OperacioFinalitzada).exitosa = exit)

Context: Sistema::altaMedicamentAdministrat(op:Operacio, med:Medicament, ds:String): MedicamentAdministrat

Pre:

 $\textbf{Post:} \ \mathsf{MedicamentAdmisnistrat.AllInstances()-} \\ \mathsf{vaists}(\mathsf{m} \mid \mathsf{m.ocllsNew()}) \\ \textit{and} \\ \mathsf{m.operacio} \\ = \mathsf{op} \\ \textit{and} \\ \mathsf{m.medicament} \\ = \mathsf{med} \\ \textit{and} \\ \mathsf{m.dosi} \\ = \mathsf{ds} \\$



llista: Set(TupleType(nomgos:String, nompropietari:String, esVet:Boolean))

 $\textbf{Context:} \ Sistema:: Consulta Gossos Perillosos No Esterillitzats (pobl: String): \ Il ista$

Pre: Persona.allInstances()->exists($p \mid p.poblacio = pobl$ *and* p.animal->size() > 0)

Post: let gossos:Set(Animal) = Animal.allinstances()->select(a|a.especie.nom = Gos and a.oclAsType(Gos).agressiu = true and a.persona.poblacio = pobl and a.sexe = Tsexe::mascle and not a.operacio.allinstances()->exists(o|o.motiu = "esterilització"))
In gossos->collect(g|Tuple{nomgos = g.nom, nompropietari = g.persona.nom, if g.persona::Veterinari then esVet = true else esVet = false endif})