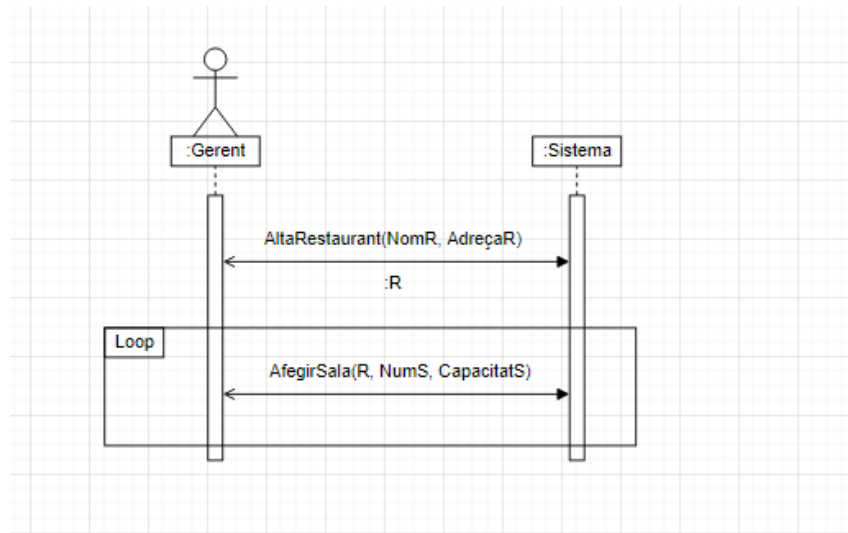


Paula Barrachina Cáceres
Joan Sales de Marcos

7è problema d'IES

Alta de Restaurant:



```
Context:  sistema::AltaRestaurant(NomR: String, AdreçaR: String)
         :Restaurant
```

```
pre: Restaurant.allInstances()-> size()<100 and
not(Restaurant.AllInstances()->exists(r |
r.Sala.AllInstances()->size() > 5))
```

```
post: Restaurant.AllInstances()->exists(r | r.OclIsNew() and
      r.nom = nomR and r.adreça = AdreçaR and result = r)
```

```
Context:  sistema::AfegirSala(R: Restaurant, NumS: integer,
                             CapacitatS: integer)
```

```
pre:      -
```

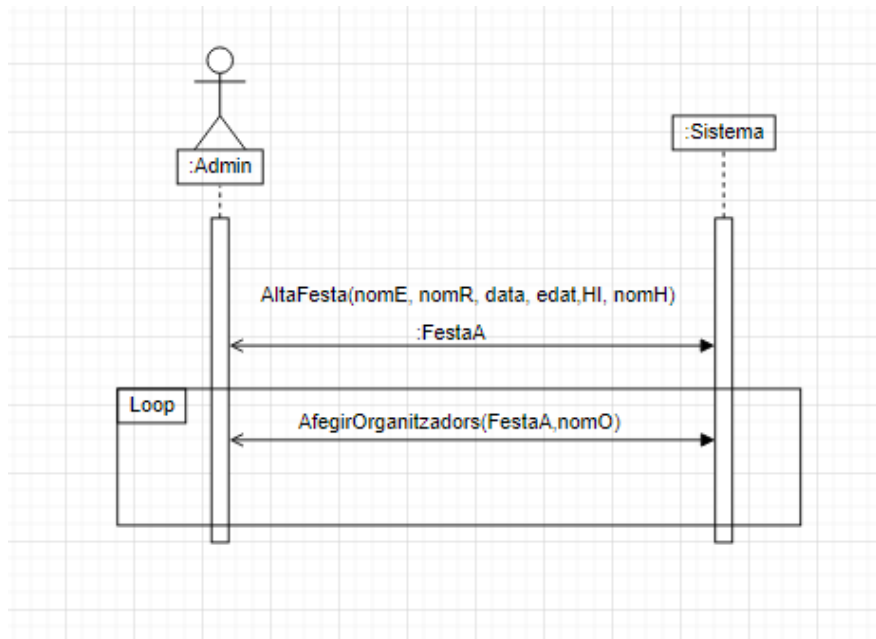
```

post:      if not (Sala.AllInstances()@pre->exists(s | s.num =
            NumS))
            then
              Sala.AllInstances()->exists(s | s.OclIsNew() and
s.numero
              = numS and s.capacitat = CapacitatS)
            end if

```

R.Sala.numero->includes (NumS)

Alta Festa d'Aniversari:



Context: sistema::AltaFesta(nomE: String, data: Date, nomR: String, edat: Natural, HI: integer, nomH: String): FestaA

pre: Empresa.allInstances()-> exists(e| e.nom = nomE) and
 Restaurant.allInstances()-> exists(r|r.nom = nomR) and
 TipusDeFesta.allInstances()->exists(tf|tf.nom =
 "Aniversari") and Persona.allInstances()->
 exists(p|p.nom
 = nomH)

post: Aniversari.allInstances()->exists(f|f.oclIsNew() and
 f.horaInici = HI and f.edad = edat and f.empresa.nom =
 nomE and f.restaurant.nom = nomR and f.data.data = data
 and f.homenatjada.nom = nomH) and

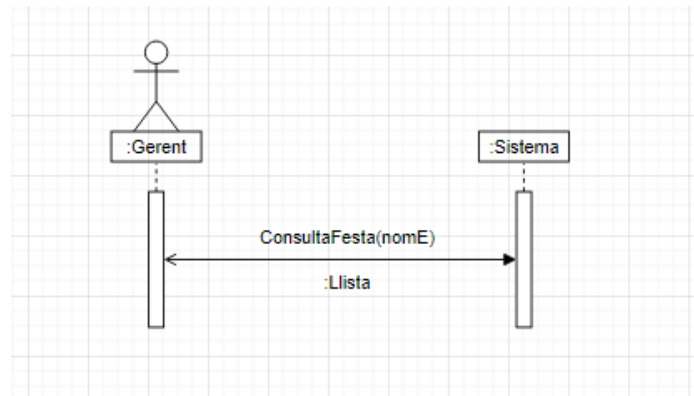
Assistent.allInstances->
 exists(a|a.oclIsNew() and a.pagat = true and
 a.persona.nom = nomH and result = f)

Context: sistema::AfegirOrganitzadors(f:FestaA, nomO: String)

pre: Persona.allInstances()-> exists(p|p.nom = nomO)

post: f.organitzador.nom-> includes(nomO) and
 Assistent.allInstances-> exists(a|a.oclIsNew() and
 a.pagat = true and a.festa = f and a.persona.nom = nomO)

Consulta Aniversaris Estranys:



Context: `sistema::ConsultaFesta(nomE: string):Set(Tupletype
(nomHom: String, set(nomOrg: String)))`

pre: `Empresa.AllInstances()->exists(e | e.nom = nomE)`

body: `let Llista:set(Aniversari) = Aniversari.AllInstances()
->select(a | a.homenatjada.nom and a.Assistent->
select(p|p.nom = a.homenatjada.nom)->size() = 0 and
a.Assistent.size() > 30)`

`in result = Llista->collect(Aniversari| Tuple{nomOrg =
a.homenatjada.nom, Tuple{nomOrg = a.Assistent->
select(p|p.nom = a.homenatjada.nom)->size() = 0 and
a.Assistent.size() > 30}})`