

1er Problema - 2on Control IES

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Context: Sistema: ActaPersonaAmbPoderes

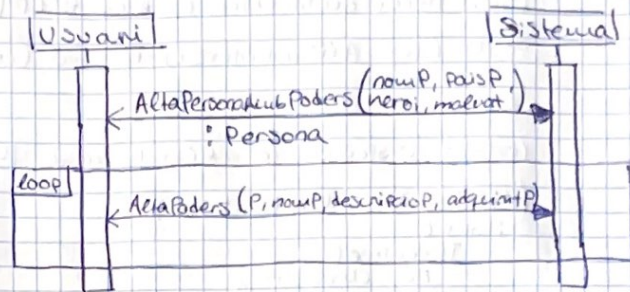
(nomP: String, PaisP: String, heroi: Bool, malvat: Bool): Persona,

Pre:

Malvat: AllInstances() \rightarrow select (m | m. PoderDePersona.oeIsTypeOf (Adquirit))
 \rightarrow size() > 10

Post:

Persona: AllInstances() \rightarrow exists (P | P.oeIsNew() and P.nom = nomP
 and P.Pais = PaisP and if (malvat = true) then
 P.oeIsTypeOf (Malvat)
 endif
 and if (heroi = true size() > 5) then
 P.oeIsTypeOf (heroi)
 endif
 and resset = P)



Context: Sistema: ActaPoderes

(P: Persona, nomP: String, descripcioP: String, adquirintP: Bool)

PRE: \emptyset

POST:

if not Poder: AllInstances() @Pre \rightarrow exists (Pd | Pd.nom = nomP)
 then
 Poder: AllInstances() \rightarrow exists (Pd | Pd.oeIsNew() and Pd.nom = nomP
 and Pd.descripcio = descripcioP and Pd.Poderosa = P)
 else
 Poder: AllInstances() \rightarrow exists (Pd | Pd.nom = nomP
 and Pd.descripcio = descripcioP and Pd.Poderosa = P)
 endif
 and if adquirintP = true then
 Innat: AllInstances() \rightarrow exists (Pi | Poder.nom = nomP
 and Pi.Poderosa = P)
 else
 Adquirint: AllInstances() \rightarrow exists (Pa | Pa.Poder.nom = nomP
 and Pa.Poderosa = P)
 endif

Context: Sistema::AltaCrisiMalvat

(lloc: string, dataC: string,
nomMalvat: string,
dataFiCrisi: Date): Crisi

PRE:

Malvat.AllInstances() \rightarrow exists(
m | m.nom = nomMalvat)
and lloc.AllInstances() \rightarrow exists(
ll | ll.nom = nomC)
and dataFiCrisi > dataC

POST:

Crisi.AllInstances() \rightarrow exists (c | c.existsNew() and d.data-fi = dataFiCrisi
and d.lloc.nom = lloc and d.data = dataC and d.Malvat.nom = nomMalvat
and result = c)

Context: Sistema::AfegirParticipantsCrisi

(c: Crisi, nouP: string)

PRE: Heroi.AllInstances() \rightarrow exists (p | p.nom = nouP)

POST: Crisi.AllInstances() \rightarrow select (cr | cr = c). Heroi \rightarrow includes (nouP)

Context: Sistema::ConsultaLocosPerLocos

(dataIni: Date, dataFi: Date)
: Set(
TupleTree(
nomLloc: string
nomMalvat: Set(string)
)
)

PRE:

dataIni < dataFi and Persona.AllInstances() \rightarrow exists (p | p.existsPeo(Heroi)
and p.existsPeo(Malvat) and p.aderDePersona.existsPeo(Aguint)
and p.existsPeo(Aguint).lloc.nom = "Barcelona")

BODY:

let llistat: Set(Lloc) = Lloc.AllInstances() \rightarrow select (l | l.crisi \rightarrow select (ll |
ll.data-fi < dataFi and ll.data.data > dataIni
and ll.Parteira \rightarrow size() >= 3) \rightarrow size() > 5)

in result = llistat \rightarrow collect (est |

tuple {

nomLloc = est.nom,

nomMalvat = est.adquirir.Persona.existsPeo(Malvat)

)

