

Specify an OCL expression for the method that creates a reservation.

Context

TripService:: generateTrip(connection: Connection, clients : List<Client>)

Pre:

Clients are not null

self.clients <> null

Clients in the client collection are not null

self.clients -> forAll(c: Client | c <> null)

Connection is not null

self.connection <> null

Connection should have at least one route

self.connection.routes -> notEmpty()

The client should have an ID.

Self.clients -> forAll(c:Client | c.id <> null)

Post:

All the created tickets are associated with a client from the list of clients and a route from the connection

result -> forAll(t: Ticket | clients -> includes (t.client) and connection.routes -> includes (t.route))

The number of created tickets is equal to the number of clients multiplied by the number of routes.

result -> size() = clients -> size() * connection.routes -> size()

The number of tickets added to the client is equal to the number of routes

self.clients -> forAll(c:Client | c.tickets->size() = c.tickets@pre->size() + connection.routes ->size())

Specify an OCL expression for the class that represents a reservation.

Context

Trip

Pre:

The list of tickets should not be null

self.tickets <>null

The list of tickets should not be empty

self.tickets->notEmpty()

Each ticket on the list should not be null

self.tickets -> forAll(t:Ticket| t<> null)

The client should have an ID.

self.client.id <> null

Post:

The trip has all the tickets for the client

self.tickets->forAll(t: Ticket | t.client.id = self.id)