

Desarrollo de Software Basado en Componentes y Servicios

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Practical Assignment: By using the operators: exists, select y asSequence->first, to specify the operation IHotelMgt::makeReservation (...) entirely with the OCL notation.

```
context:      IhotelMgt : makeReservation (in res : ReservationDetails, in cus : CustId, out
               resRef : String) : boolean

pre:          -- el id del cliente es válido
               customer → exists (c : Customer | c.id = cus)

               -- el hotel es válido
               hotel → exists (h : Hotel | h.id = res.HotelId)

               -- el tipo de habitación es válido
               roomtype → exists (rt : RoomType | rt.name = res.rtName)

context reserv: Reservation inv:
               -- Debe existir una habitación vacía en las fechas y el hotel establecido.
               reserv → exists (r : Reservation | r.HotelId = res.HotelId, r.dates = res.dates, r.claimed =
               r.allocation → Empty)

post:         -- Buscamos el hotel
               Let theHotel = hotel → select (h : Hotel | h.id = res.HotelId) → asSequence → first in

               -- Buscamos la última reserva
               Let theReservation = (theHotel.reservation – theHotel.reservation@pre) →
               asSequence → first in

               theReservation.resRef = resRef and
               theReservation.claimed = false and
               theReservation.dates = res.dates and
               theReservation.roomtype = res.roomtype and
               theReservation.customer.id = cus
```