

# OCL

**context** BookingUI::createReservation(clients: List<Client>, chosenConnections List<Connection>)

pre: clients→forAll(c | c.firstName→notEmpty() and c.lastName→notEmpty() and c.age >= 0)

post: reservations→size() = clients→size()

post: reservations→ forAll(r | clients→includes(r.client) and r.connections =

chosenConnections and r.ticket <> null and ((r.ticket.travelClass = 'First Class'

implies r.ticket.price = chosenConnections→collect(tc | tc.firstClassTicketRate)->sum()) and

(r.ticket.travelClass = 'Second Class' implies r.ticket.price = chosenConnections->collect(tc | tc.secondClassTicketRate)→sum()))))

**context** Reservation

inv: self.client <> null

inv: self.connections→notEmpty()

inv: self.ticket <> null

inv: self.ticket.price >= 0

inv: self.reservationId >= 0

inv: self.connections→isUnique(c | c.routeID)