

```
context ReservationsDB::createReservation(fn : String, ln : String, age : int,
govId : String, routeId : String, ticketClass : String, tripId : String,
clientId : Integer)
  pre: self.reservation.trip -> asSet()
        -> includes(tripId) //trip exists
  pre: self.reservation.client -> asSet()
        -> includes(clientId) //client exists
  pre: self.reservation -> forAll(r : Reservation | r.client.clientId <> c or
r.trip.tripId <> t)
  post: self.reservation.ticket -> exists(t : Ticket | t.client.clientId =
clientId and t.trip.tripId) //ticket is created

context Reservation
  inv: self.client <> null //each reservation associated to a single client
  inv: self.trip <> null //each reservation is associated to a single trip
  inv: self.ticket <> null //each reservation is associated to a single ticket

  inv: self.client.age > 0 //valid age
  inv: self.client.firstName <> null //first name is not null
  inv: self.client.lastName <> null //last name is not null
  inv: self.client.govId <> null //govid is not null
```