

## OCL Expressions for Reservation Class

**Context:** Reservation

**Attributes:**

context Reservation

client: Client

connection: Connection

ticket: Ticket

**Invariants:**

Reservation must have a client

inv hasClient:

self.client <> null

Reservation must have a connection

inv hasConnection:

self.connection <> null

Reservation must have a ticket

inv hasTicket:

self.ticket <> null

Ticket must match the client

inv ticketMatchesClient:

self.ticket.client = self.client

Ticket must match the connection

inv ticketMatchesConnection:

self.ticket.connection = self.connection

Client and connection must be different from null

inv validClientAndConnection:

self.client <> null and

self.connection <> null implies

self.ticket <> null

Two reservations are equal if they have same client and connection  
inv uniqueReservation:

```
Reservation.allInstances()->forall(r1, r2 |  
  r1 <> r2 implies  
  not (r1.client = r2.client and r1.connection = r2.connection)  
)
```

### **Collection Properties:**

Get the route ID from connection

context Reservation::routeId(): String

Get client name

context Reservation::clientName(): String

Get departure city

context Reservation::departureCity(): String

Get arrival city

context Reservation::arrivalCity(): String

Get ticket price

context Reservation::ticketPrice(): Integer