

OCL expression for the method that creates a reservation

```
context Traveler::createReservation(): Reservation Object
  pre: Traveler.allInstances() -> exists(t: Traveler | t.traveler_id = self.traveler_id and
                                             t.traveler_f_name = self.traveler_f_name and
                                             t.traveler_l_name = self.traveler_l_name and
                                             t.traveler_age = self.traveler_age)
  post: r.Reservation <> null and
        self.reservations -> last() = r and
        self.reservations -> size() = self.reservations -> size()@pre + 1
```

OCL expression for the class that represents a reservation

context Reservation:

```
inv: self.traveler -> not isEmpty()
inv: self.ticket -> not isEmpty()
```

```
context Reservation::setTraveler(t:Traveler): void
  pre: t <> null and t -> not isEmpty()
  post: self.traveler = t@pre
```

```
context Reservation::setTicket(t:Ticket, tripld:Trip.trip_id): void
  pre t <> null and t -> not isEmpty() and
      tripld <> null
  post: rg:Reservation_Gateway <> null and
        rg.insertReservation(ticket:Ticket, self.traveler, tripld:Trip.trip_id): void
        self.ticket = t@pre
```

context Reservation::getTraveler(): Traveler Object

```
pre: self.traveler <> null and self.traveler -> not isEmpty()
post: self.traveler = self.traveler@pre
```

context Reservation::getTicket(): Ticket Object

```
pre: self.ticket <> null and self.ticket -> not isEmpty()
post: self.ticket = self.ticket@pre
```