

Context : DBReservation :: addReservation(Client client, Connection connection)

Pre : none

Since the context is DBReservation, we cannot check if client and connection exist in the client and connection databases, respectively. Reason: DBReservation is an attribute to Terminal, so the visibility is one-sided, where only Terminal has access to DBReservation and not the other way around. Also, we cannot say there doesn't exist a reservation with the same client and connection because a client can book the same connection multiple times on different trips.

Post :

- Number of reservation increased by one
 - **self.reservation->size() = self.reservation@pre ->size() + 1**
- A reservation was issued for this client and connection
 - **self.reservation->exists(r: Reservation | r.client.id = client.id and r.connection.id = connection.id)**
- Number of ticket increased by one
 - **self.reservation.ticket->select(t : Ticket | t.reservation.client.id = client.id and t.reservation.connection.id = connection.id) -> size() = result@pre ->size() + 1**

Context : Reservation

inv : **self.client->size()=1**
self.connection->size()=1
self.trip->size()=1
self.ticket->size()=1