

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)
```