| Actor  | D   | Decree all and the second seco |   | .DocomotionTDC  | Decembries Table  | .December    |
|--|---|--|---|-----------------|-------------------|--------------|
| Actor  | Register <u>:F</u>  | ReservationMapper    :ReservationIdentityMap   | <u>:UnitOfWork</u>  | :ReservationTDG | Reservation Table | :Reservation |
| makeReservation(username, roomNumber, timeslot)  | I<br>→I   | ;<br> <br>   |   | ;<br> <br>      | ;<br> <br>        |              |
| K[invalid parameters]error   |   |  | Î<br>I  |                 | i<br>I<br>I       |              |
|  | l<br>getNumOfReservations(username, timeslot)                                 | <br>   | I<br>I  |                 | l<br>I            |              |
|  | I<br>I  |  | rvations(username, timeslot)                                  |                 | I<br>I            |              |
|  | <br>  |  |   |                 |                   |              |
|  | <br>  |  | I<br>I  |                 | SELECT[]          |              |
|  | <br>  | ├{   | mOfReservations   |                 | <br>              |              |
|  | <br>  <u>numOfReservations</u>  | · <del> </del>   | I<br>I  | <br>            |                   |              |
| <br>   | │<br>· — — — — — ┥  |  | I<br>I  |                 |                   |              |
|  | l<br>L <u>hasReservation(username, roomNumber, timeslot)</u>                  | <br>- — — — ▶  | I<br>I  | <br>            | <br>              |              |
|  | <br>  |  |   | <br>            | l<br>I            |              |
|  | l<br>I  | hash:= getHash(username, roomNumber, timeslot)  reservation:= find(hash)   | J<br>J  |                 |                   |              |
|  | <br>  | ;  |   | <br>            | <br>              |              |
|  | <br>  | l treservation not found) getkesen   | vationCount(username, roomNumber, timeslot)                   |                 | l<br>I            |              |
|  | <br>  | k  | count   |                 | I<br>I            |              |
|  | <br>  | ·  | I<br>I  | <br>            | l<br>I            |              |
| <br>   |   |  |   | <br>            | l<br>I            |              |
|  | isTimeslotReserved(roomNumber, timeslot)                                      |  |   |                 | I<br>I            |              |
|  | ]<br>   | findReserved(roomNumber, timeslot)   |   |                 | I<br>I            |              |
|  | <br>  |  |   |                 | <br>              |              |
|  |   | K reservation reservation  |   |                 |                   |              |
|  |   | I reservation not found jo   | <u>jetFilledCount(roomNumber, timeslot)</u>                   | <u> </u>        |                   |              |
|  |   | k  | c <u>ount</u>   |                 |                   |              |
|  | <br>  | · — — — — — — — — — — — — — — — — — — —  |   |                 |                   |              |
|  | [not reserved] removeFromAllOtherWaitingLists(username, roomNumber, timeslot) |  |   |                 |                   |              |
|  |   | reservations:= findAllOtherPendingReservations(username, roomNumber, timeslot)   |   |                 |                   |              |
|  |   | reservations   |   |                 |                   |              |
|  |   | [reservations not empty] registerRemoved(reservations)   |   |                 |                   |              |
|  |   |  | ••••••••••••••••••••••••••••••••••••••                        |                 |                   |              |
|  |   | deleteAll(reservations)  |   |                 | <br>              |              |
|  |   | deleteAllOtherPendingReser   | vations(username, roomNumber, timeslot)                       |                 | <br>              |              |
|  | insert(username, roomNumber, status, timeslot, timestamp)                     |  | ,<br> <br>  |                 |                   |              |
|  | <u> </u><br>  | ,<br> <br>   | r:= create(username, roomNumber, status, timeslot, timestamp) |                 | <br>              | i            |
|  |   | add(r)   | ,<br> <br>  |                 |                   |              |
|  |   | registerNew(r)   | <br>  |                 |                   |              |
|  | commit()  |  |   |                 |                   |              |
|  | COHMINE()   |  | ;<br>]<br>  |                 |                   |              |
|  |   | · COMMU()  | →i<br>  |                 |                   |              |
|  | ;<br> <br>  | applyInsert(newObjects)  |   | i<br>i          |                   |              |
|  | <br>  | ,<br>[<br>]  | insert()  | i               | ;<br>i<br>I       |              |
|  | i<br>I  |  | i<br>I  | į<br>I          | INSERT[]          |              |
|  | <br>  | applyDelete(newObjects)  |   | i<br>I          | ;<br>¡<br>!       |              |
|  | <br>  | ·<br>  | delete()  | :<br> <br>      | ;<br>¡<br>!       |              |
|  | <br>  | ]<br> <br>   | <br> <br>   |                 | DELETE[]          |              |
|  | <br>  | applyUpdate(newObjects)  | I<br>I  |                 | <u> </u>          |              |
|  | <br>  |  |   |                 | I<br>I            |              |
|  | <br>  | <u>                                       </u>   | setFilled()   |                 |                   |              |
|  |   |  | I<br>I  | <u> </u><br>    | UPDATE[]          |              |
| l<br>I − − − − − − − − − − − <u>confirmation message</u> − − − − − − − − − − − − − − − − − − − | · <del> </del>  |  | I<br>J  | <br>            | I<br>I            |              |
|  | <br>  |  | ]<br>   | l<br>I          | I<br>I            |              |
|  |   |  |   |                 |                   |              |