**Contract C-01: startSession**

**Operation:** startSession(userID: int)

**Cross References:** Use Cases: Book room, view bookings

**Preconditions:** User has identified with student card or manual login

**Postconditions:** A new Session instance was created

**Contract C-02: requestBookRoom**

**Operation:** requestBookRoom(requestCode: int)

**Cross References:** Use Cases: Book room, release room, view bookings

**Preconditions:** A session is active for the user.

The requestCode is valid

**Postconditions:** A RequestResponse is created

The RequestResponse is initialized with responseCode = CONFIRM

**Contract C-03: enterRoomInfo**

**Operation:** requestBookRoom(roomName: string, roomNumber: int)

**Cross References:** Use Cases: Book room, view bookings

**Preconditions:** Request has been confirmed.

**Postconditions:** System has identified the Room[] required

**Contract C-04: enterDateInfo**

**Operation: enterDateInfo** (date: Date)

**Cross References:** Use Cases: Book room, view bookings

**Preconditions:** Request has been confirmed.

**Postconditions:** System has identified the Date[] required

**Contract C-05: releaseCurrentRoom**

**Operation: releaseCurrentRoom** (roomName: string, roomNumber: int)

**Cross References:** Use Cases: Release room

**Preconditions:** Current room has been selected by user and identified by the system

**Postconditions:** Booking information is removed from the instance of Room

The Booking object is destroyed

The system begins broadcasting the release

**Contract C-06: broadcastReleaseRoom**

**Operation:** broadcastReleaseRoom(roomName: string, roomNumber: int, timeslot: Timeslot)

**Cross References:** Use Cases: Release room

**Preconditions:** Booking object has been destroyed in one session for this room in the given timeslot

**Postconditions:** A new Response instance is created

The response is sent to all active sessions

**Contract C-07: lockRoom**

**Operation:** lockRoom(id: int)

**Cross References:** Use Cases: Book room

**Preconditions:** Booking request has been confirmed

**Postconditions:** A new Response instance is created

The response is initialized with lock roomCode

The response is sent to all active sessions

The room is marked unavailable to other sessions

**Contract C-08: terminateSession**

**Operation:** terminateSession (userID: int)

**Cross References:** Use Cases: Book room, view bookings, release room

**Preconditions:** The user has completed all desired tasks

User is logged out

**Postconditions:** The session instance is destroyed

The session instance is removed from sessionManager