

## **Rent-A-Ride Functional Requirements: Use Cases**

**Actors: Visitor, Customer, Administrator**

### **1. Login**

Actors: Administrator, Customer

Input: userName, password (of Customer or Administrator)

Output: session initiated and Customer/Administrator object located

Exception: wrong userid and/or password

### **2. Logout**

Actors: Administrator, Customer

Output: session terminated

### **3. CreateRentalLocation**

Actors: Administrator

Input: RentalLocation attributes, excluding vehicles

Output: new RentalLocation

Exception: capacity not positive

### **4. UpdateRentalLocation**

Actors: Administrator

Input: RentalLocation, RentalLocation new attributes, excluding vehicles

Output: modified RentalLocation

Exception: capacity not positive

### **5. DeleteRentalLocation**

Actors: Administrator

Input: RentalLocation

Precond: no Vehicles at the RentalLocation

Output: RentalLocation deleted

Exception: vehicles not empty

### **6. FindRentalLocation**

Actors: Administrator, Customer

Input: none or some of the RentalLocation attributes, excluding vehicles

Output: list of RentalLocations [with Vehicles at those RentalLocations]

### **7. CreateVehicleType**

Actors: Administrator

Input: VehicleType attributes

Output: new VehicleType

### **8. UpdateVehicleType**

Actors: Administrator

Input: VehicleType, VehicleType attributes

Output: modified VehicleType

**9. DeleteVehicleType**

Actors: Administrator

Input: VehicleType

Precond: no Vehicles of the VehicleLocation

Output: VehicleType deleted

Exception: vehicles not empty

**10. FindVehicleType**

Actors: Administrator, Customer

Input: none or some of the VehicleType attributes

Output: list of VehicleTypes

**11. CreateVehicle**

Actors: Administrator

Input: VehicleType, Vehicle attributes

Output: new Vehicle

Exception: year or mileage not positive

**12. UpdateVehicle**

Actors: Administrator

Input: Vehicle, VehicleType, Vehicle attributes

Output: modified Vehicle

Exception: year or mileage not positive

**13. DeleteVehicle**

Actors: Administrator

Input: Vehicle

Precond: no Rental with the Vehicle

Output: Vehicle deleted

**14. FindVehicle**

Actors: Administrator, Customer

Input: none or VehicleType and/or some Vehicle attributes

Output: list of Vehicles with their VehicleTypes

**15. AssignVehicleToRentalLocation**

Actors: Administrator

Input: Vehicle, RentalLocation

Output: new connection between the Vehicle and the RentalLocation

Exception: capacity of the RentalLocation exceeded

**16. FindCustomer**

Actors: Administrator, Customer

Input: none or some Customer attributes; Customer must supply all

Output: list of Customers [with their Reservations]

**17. DeleteCustomer**

Actors: Administrator

Input: Customer

Output: removed pending Reservations with this Customer and status set to terminated

**18. ResetUserPassword**

Actors: Administrator, Customer

Input: Customer

Output: new password (auto generated)

**19. RegisterCustomer**

Actors: Visitor

Input: Customer attributes

Output: new Customer and status is set to active

**20. ExtendMembership**

Actors: Customer

Input: Customer

Output: modified Customer (w/ extended membership expiration)

**21. UpdateCustomerProfile**

Actors: Customer

Input: Customer attributes

Output: modified Customer

**22. CancelMembership**

Actors: Customer

Input: Customer

Output: removed pending Reservations with this Customer and status changed to removed

**23. CreateReservation**

Actors: Customer

Input: Customer, RentalLocation, VehicleType, Reservation attributes

Output: new Reservation or suggestion for an alternative RentalLocation

Exception: time in the past or too long time requested

**24. UpdateReservation**

Actors: Customer

Input: Reservation, RentalLocation, VehicleType, Reservation attributes

Output: modified Reservation

Exception: time in the past or too long time requested

**25. CancelReservation**

Actors: Customer

Input: Reservation

Output: Reservation deleted

## **26. FindReservation**

Actors: Customer, Administrator

Input (as Customer): Customer

Input (as Admin): none or Customer and/or RentalLocation and/or VehicleType and/or  
Reservation attributes

Output: list of Reservations

## **27. RentVehicle**

Actors: Customer

Input: Reservation, Vehicle, Rental attributes

Output: new Rental and Vehicle's state is set to inRental

## **28. ReturnVehicle**

Actors: Customer

Input: Rental, Comment, Vehicle, Rental attributes

Output: modified Rental and Vehicle's state is set to inLocation

## **29. UpdateVehicleTypeHourlyPrice**

Actors: Administrator

Input: VehicleType, HourlyPrice attributes

Output: modified VehicleType's HourlyPrice

## **30. UpdateMembershipParameters**

Actors: Administrator

Input: membershipPrice and/or overtimePenalty

Output: modified membershipPrice and/or overtimePenalty