0.0.1 Vehicle Manager -¿ Mantainance Manager

Retrive car's components status	
Parameter(s)	Car identifier
Pre-condition(s)	**Post-condition(s)**
The car identifier does not match any vehicle registered in the system	Returns a specific error.
The car identifier matches one vehicle registered in the system	Returns in an encoded form the status informations regarding the vehicle's components.

Retrive car's status	
Parameters	Car identifier
Pre-condition(s)	**Post-condition(s)**
The car identifier does not match any vehicle registered in the system	Returns a specific error.
The car identifier matches one vehicle registered in the system	Returns in an encoded form the status informations regarding the vehicle.

Perform diagnostic on car's components	
Parameters	Car identifier
Pre-condition(s)	**Post-condition(s)**
The car identifier does not match any vehicle registered in the system	Returns a specific error.
The car identifier matches one vehicle registered in the system	Returns in an encoded form the updated status informations regarding the vehicle's components.

0.0.2 Account Manager -¿ Authentication Manager

Delete an user account	
Parameter(s)	Account identificator
Pre-condition(s)	**Post-condition(s)**
No user account is matched by the account identificator.	Returns a specific error. Nothing is deleted from the system's storage.
The account identificator does not respect the designed account identificator patter	Returns a specific error. Nothing is deleted from the system's storage.
The account identificator matches one user account stored in the system's storage.	Returns a positive notification. The account matched and all related informations are removed from the system's storage.

Edit user informations	
Parameter(s)	Account identificator, information field indentifier(s), updated information(s)
Pre-condition(s)	**Post-condition(s)**
No user account is matched by the account identificator.	Returns a specific error. Nothing is deleted from the system's storage.
The account identificator does not respect the design account identificator patter	Returns a specific error. Nothing is deleted from the system's storage.
No information field recorded in the system's storage is matched by the information field identifier(s).	Return a speficic error. No modification is performed to the informations stored in the system's storage.
The information field identificators do not respect the designed information field identificator pattern.	Return a specific error. No modification is performed to the informations stored in the system's storage.
The updated informations do not respect the designed input pattern.	No modification is performed to the informations stored in the system's storage.

The account identificator matches one user account stored in the system's storage. The information field identificators respect the designed information field identificator pattern. All the information fields are matched by the information field identifiers. All the updated informations respect the designed input pattern.	Returns a positive notification. The updates are performed correctly.

Verify an user account existence	
Parameter(s)	Account identificator
Pre-condition(s)	**Post-condition(s)**
No user account is matched by the account identificator.	Returns a specific error. .
The account identificator does not respect the designed account identificator patter	Returns a specific error. .
The account identificator matches one user account stored in the system's storage.	Returns a positive notification. .

Perform the access to the system's services	
Parameter(s)	Identification credentials, authentication credentials
Pre-condition(s)	**Post-condition(s)**
No user account is matched by the indentification credentials.	Returns a specific error. System's services usage and access is not granted. No other action is performed.
The authentication credentials are not verified	Returns a specific error. System's services usage and access is not granted. No other action is performed.
The identification credentials does not respect the designed input patter.	Returns a specific error. System's services access and usage is not granted. No other action is performed.

The indentification credentials match one user account stored in the system's storage. The authentication credentials are verified.	Returns a positive notification. The access and usage to the system's services is granted.

Register an user account	
Parameter(s)	Identification credentials, driving license informations, payment informations, user informations
Pre-condition(s)	**Post-condition(s)**
The indentification credentials do not respect the designed input pattern.	Returns a specific error. No information is stored in the system's storage. No other action is performed.
The user informations do not respect the designed input patter.	Returns a specific error. No information is stored in the system's storage. No other action is performed.
One user account is matched by the indentification credentials.	Returns a specific error. No information is stored in the system's storage. No other action is performed.
The driving license informations are not valid	Returns a specific error. No information is stored in the system's storage. No other action is performed.
The driving license informations are already stored in the system's storage.	Returns a specific error. No information is stored in the system's storage. No other action is performed.
The payment informations are not valid.	Returns a specific error. No information is stored in the system's storage. No other action is performed.

The indentification credentials and the user informations respect the designed input pattern. No account is matched by the identification credentials. The driving license informations are not stored in the system's storage. The driving license informations are valid. The payment informations are valid.	Returns a positive notification. All the informations are stored in the system's storage.

0.0.3 Reservation Manage -¿ Authentication Manager

Create a reservation	
Parameter(s)	Account indentificator, car identificator
Pre-condition(s)	**Post-condition(s)**
The account identificator is not associated to any registered account in the system	Returns a specific error. Nothing is recorded in the system.
The car identificator is not associated to any registered vehicle in the system	Returns a specific error. Nothing is recorded in the system.
The vehicle associated to the car identificator provided is currently unavailable.	Returns a specific error. Nothing is recorded in the system.
The account identificator is associated to one registered account. The car identificator is associated to one registered vehicle in the system. The vehicle associated to the car identificator is currently available.	Returns a positive notification. The reservation is created in the system, associating it to the account identificator and the car indentificator provided, along wih the reservation details. The timer associated to the reservation is associated.

Delete current reservation	
Parameter(s)	Account indentificator
Pre-condition(s)	**Post-condition(s)**
The account identificator is not associated to any registered account in the system	Returns a specific error. Nothing is recorded in the system.
The account identificator matches an existing account with no current reservation associated	Returns a specific error. Nothing is removed from the system.
The account identificator is associated to one registered account.	Returns a positive notification. The reservation is created in the system, associating it to the account identificator and the car indentificator provided, along with reservation details. Existing timers are removed.

Update current reservation

Parameter(s)	Account indentificator, event
Pre-condition(s)	**Post-condition(s)**
The account identificator is not associated to any registered account in the system	Returns a specific error. Nothing is recorded in the system.
The account identificator matches an existing account with no current reservation associated	Returns a specific error. Nothing is recorded in the system.
The event is not correctly encoded	Returns a specific error. Nothing is recorded in the system.
The account identificator is associated to one registered account. The event is correctly encoded	Returns a positive notification. The reservation associated to the matched account is updated with the informations contained in the encoded event.

Retrieve current reservation details	
Parameter(s)	Account identificator
Pre-condition(s)	**Post-condition(s)**
The account identificator is not associated to any registered account in the system	Returns a specific error.
The account identificator matches an existing account with no current reservation associated	Returns a specific error.
The account identificator is associated to one registered account. The registered account has a current reservation associated.	Returns a positive notification. Returns the reservation details correctly encoded.

Retrieve specific-reservation details	
Parameter(s)	Account identificator, filtering option, ordering option
Pre-condition(s)	**Post-condition(s)**
The account identificator is not associated to any registered account in the system	Returns a specific error.
The filtering option provided is not accepted	Returns a specific error.

The account identificator matches an existing account with no reservations associated	Returns a specific error.
The list of reservations retrieved using the filter option is empty.	Returns a specific error.
The ordering option provided is not accepted	Returns a specific error.
The account identificator is associated to one registered account. The registered account has at least one reservation associated. The filtering option is accepted. The ordering option is accepted. The list of reservations retrieved using the filter option is not empty.	Returns a positive notification. Returns the details of all the reservations retrieved applying the filtering option in the order specified by the ordering option. The list is returned in a correctly encoded format.

0.0.4 Vehicle Manager -¿ Authentication Manager

Unlock the vehicle	
Parameter(s)	Car identificator
Pre-condition(s)	**Post-condition(s)**
The car identificator is associated to no vehicle registered in the system.	Returns a specific error.
The vehicle matched by the car identificator provided is already unlocked.	Returns a specific error.
The car identificator is associated to one vehicle registered in the system. The vehicle matched is locked.	Returns a positive notification. The vehicle is unlocked.

Lock a vehicle	
Parameter(s)	Car indentificator
Pre-condition(s)	**Post-condition(s)**
The car identificator is not associated to any vehicle registered in the system.	Returns a specific error.
The vehicle matched by the car identificator provided is already locked.	Returns a specific error.

The vehicle matched by the car identificator has the engine turn on.	Returns a specific error.
The vehicle matched by the car identificator has the vehicle's keys not inserted in the vehicle's panel.	Returns a specific error.
The vehicle matched by the car identificator has at least one passenger inside.	Returns a specific error.
The vehicle matched by the car identificator has at least one door open.	Returns a specific error.
The vehicle matched by the car identificator is not inside a parking area.	Returns a specific error.
The car identificator matches one vehicle register inside the system. The vehicle matched is unlocked. The vehicle matched has the engine turned off. The vehicle matched has the vehicle's keys inserted in the vehicle's panel. The vehicle matched has no passenger inside. The vehicle matched has no door open. The vehicle matched is inside a parking area.	Returns a positive notification. The vehicle is locked.

Retrieve vehicle position	
Parameter(s)	Car indentificator
Pre-condition(s)	**Post-condition(s)**
The car identificator is not associated to any vehicle registered in the system.	Returns a specific error.
The car identificator matches one vehicle registered in the system.	Returns the current position of the vehicle in a correctly encoded format.

0.0.5 Map manager -¿ Authentication manager

Encode position	
Parameter(s)	Position coordinates.

Pre-condition(s)	Post-condition(s)
The position coordinates does not respect the designed decoded position patter.	Returns a specific error.
The position coordinates respect the designed decoded coordinates patter.	Returns a positive notification. The encoded position is returned.

Decoded position	
Parameter(s)	Position coordinates.
Pre-condition(s)	**Post-condition(s)**
The position coordinates does not respect the designed encoded coordinates patter.	Returns a specific error.
The position coordinates are already decoded.	Returns a specific error.
The position coordinates respect the designed encoded coordinates patter.	Returns a positive notification. The decoded position is returned.

0.0.6 Area Manager -¿ Authentication Manager

Insert a new area	
Parameter(s)	Encoded area details
Pre-condition(s)	**Post-condition(s)**
The encoded area details are not correctly encoded.	Returns a specific error. Nothing is recorded in the system.
The encoded area details are correcly encoded.	Returns a positive notification. The details are correctly recorded in the system.

Delete an area	
Parameter(s)	Area identificator
Pre-condition(s)	**Post-condition(s)**
The area identificator does not match any area registered in the system.	Returns a specific error. Nothing is removed from the system.
The area identificator matches one registered area in the system.	Returns a positive notification. The details are correctly removed from the system.

Update area details	
Parameter(s)	Area identificator, encoded area details
Pre-condition(s)	**Post-condition(s)**
The area identificator does not match any area registered in the system.	Returns a specific error. Nothing is removed from the system.
The encoded area details are not correctly encoded.	Returns a specific error. Nothing is recorded in the system.
The area identificator matches one registered area in the system. The encoded area details are correcly encoded.	Returns a positive notification. The details are correctly recorded in the system.

Retrieve area details	
Parameter(s)	Area identificator
Pre-condition(s)	**Post-condition(s)**
The area identificator does not match any area registered in the system.	Returns a specific error.
The area identificator matches one registered area in the system.	Returns a positive notification. The matched-area details are returned in a correctly encoded format.

0.0.7 Policies and Fares Manager -¿ Authentication Manager

Insert a rule	
Parameter(s)	Encoded rule
Pre-condition(s)	**Post-condition(s)**
The rule is not encoded correctly.	Returns a specific error. Nothing is stored in the system.
The rule is encoded correctly.	Returns a positive notification. The encoded rule is inserted in the system.

Update a rule	
Parameter(s)	Rule indentificator, encoded rule
Pre-condition(s)	**Post-condition(s)**
The rule identificator does not respect the designed input patter.	Returns a specific error. Nothing is changed in the system.

No rule is matched by the rule identificator.	Returns a specific error. Nothing is changed in the system.
The rule is not encoded correctly.	Returns a specific error. Nothing is stored in the system.
A rule is matched by the rule identificator. The rule is encoded correctly.	Returns a positive notification. The rule matched is correctly updated with the encoded rule

Delete rule	
Parameter(s)	Rule identificator.
Pre-condition(s)	**Post-condition(s)**
The rule identificator does not respect the designed input patter.	Returns a specific error. Nothing is changed in the system.
No rule is matched by the rule identificator.	Returns a specific error. Nothing is changed in the system.
A rule is matched by the rule identificator.	Returns a positive notification. The rule matched by the rule identificator is delete correctly from the system.

Retrieve rule	
Parameter(s)	Rule identificator.
Pre-condition(s)	**Post-condition(s)**
The rule identificator does not respect the designed input patter.	Returns a specific error. Nothing is changed in the system.
No rule is matched by the rule identificator.	Returns a specific error. Nothing is changed in the system.
A rule is matched by the rule identificator.	Returns a positive notification. The encoded rule mapped by the rule identificator is returned.