Scenario 1: Registration

The user accesses to the app and asks for a registration. Registration page is loadable tank to a registration button in the log-in page.  
There aren’t connection problems so the operation will work without failure until the end.  
The user insert Name, Surname, Codice Fiscale, Address, n. driving license, E-mail, Payment option, User name, a “recover dates question” and its answer. Finally he asks to complete the registration.  
The system verifyes the validity of the inserted fields [1] and the validity of the payment option [2].  
The system sends an E-mail to the user with the password and opens a window on the app that asks to insert the password to activate the account or to ask to send another mail [3].

1. Inserted infos are not valid. The page is refreshed with the notification of the invalid fields.
2. Payment option is not valid. The page is refreshed with the notification that the verification of the payment option was unsuccesfull.
3. The e-mail doesn’t arrive. Ask to resend it.

Scenario 2: Log-In

The registered user access to the app. A page with the fields Username and Password is loaded.  
The register user fills the fields. The system verifyes them, they result correct so the registered user has acces to the app.”

1. The registered user can’t remember username and password. On the Log-In page there are two buttons “Remember Password” and “Remember Username”. The user clicks on the desired button. The system asks the “recover dates question” and sends an e-mail with the desired information when it is answered correctly (Scenario 1).
2. There are not limited tryes to access. In case of uncorrect username or password or both, the page is refreshed notifing the problem without giving any infos about the wrong field.

Scenario 3: Normal rent

The user need a car so access to the application (scenario 1 + scenario 2).  
User’s GPS and mobile works, so will not be connection problems during all the rent, the same is assumable for the car.  
The app asks if the center of research is the current position or a specific address. User choses current position. Then app shows all the free cars in a range (1h walking from the position). The user chose one and reserve it.  
The user reach the car and ask to open it. The cari s succesfully opened.  
The user get into the car and ignites it, the fee calculation starts and it is shown on the display of the navigator [1].  
The user drive for X minutes and then stops the car in a safe area. The battery of the car is 20%<B<50%.  
The fee calculation is interrupted and the system asks if the user will terminate the rent. The user answer positively and leaves the car, who will be locked shortly. The fee is taken from the payment option succesfully.

1. The display shows the saving money option. If selected, the system will calculate the more economic path according to the final destination (asked) and the free places on the power grid. After the calculation, the user must say he approve the path caluclated.

Scenario 4: Cancel reservation

* The user reserve a car. After 60m the reservation is canceled (the cari s reservable again) by the system and 1€ is taken from user payment option. Everything is notified to the user who, after taking vision fo the fact, can reserve another car.
* The user reserve a car. Before 60m of wait, the user cancel the reservation. The car become reservable again and the user can reserve another car.

Scenario 5: Connection falls or mobile forced to turn off

* The car is reserved. Go to scenario 2 point one.
* The car was turned on. The fee calculation will be active until the user will be able to end the reservation. The car will be locked if no passengers are dette, even if the reservation is still going.

Scenario 6: Unsuccesfull payment

The system try to take the fee from the payment option o the user but it is impossibile.  
The system will deny any reservation requested by the user.  
The user can acces only to the modification of personal infos (payment option) on the app, but to reserve other cars he has to pay his debt by clicking a button “pay” shows by the app. This button recheck the payment option disponibility and, if possible, take the money.

Scenario 7: car GPS breaks/turn off

* Car is not reserved. Car become not reservable.
* Car is reserved. The reservation is canceled/Scenario 4.
* The fee calculation has started. Normal rent but in the end will not be applyed discounts to the final fee.

Scenario 8: user GPS breaks/turn off

* User is searching a car to reserve. Any reservation is denyed.
* User reserved a car. The reservation will be still active so Scenario 4. The “open button” will not work because the user cannot demostrate that he is near the car.
* The fee calculation has started. Normal rent.

Scenario 9: Park in a non safe area

If the car is parked in a non safe area the system will not show the “end reservation” setting to the user, so the fee calculation still go and the car doesn’t return reservable. The car will be locked anyway if the sensors on the sits don’t reveal any passenger.

Scenario 10: Discounts

When a rent end the final fee is calculated

1. Battery>50% 🡪 -20% fee
2. More than one passenger 🡪 -10% fee
3. Battery on charge in a special area 🡪 -30% fee
4. Nearest power grind distance>3km and battery<20% 🡪 +30% fee
5. 1+2
6. 2+3
7. 2+4