**Goals (0.50m)**

* starting from these assumptions and taking into consideration the requirements resulting after the first meeting with the stake-holders and share-holders, we identified some basic goals like :  
  **G1: Ensure system’s accessibility**
* **G6: Allow user to find available cars within a certain distance from a specified place**
* **G7: Allow user to reserve a car**
* **G8: Discourage fake and too long reservations**
* **G9: Allow the user who reserved the car to see information about his reservation**

And all the security and saving related goals.

**Scenari (1.40m)**

During the brainstorming examining all the possible and probable uses for our system we identified 5 scenarios, trying to cover five common situations our system should be ready and programmed to deal with.

I’ll expose briefly these scenarios.

So, we have “deal with the strike”, that is a situations were, because of a public transport strike we have to find an alternative transport.

“friend in saving” talks about a group of friends that, after an expensive dinner together, want to go home with the cheapest option available to them (and Due to the late hour, the public transportation is no more

Available).

“A busy businessman” is what happens when you reserve a car but don’t pick it up because of a deadline missed or simply a forgotten reservation.

“Desperate housewife” talks about an housewife going back home after a trip to the grocery store and choosing not to use any saving options given because it’s raining and the nearest parking lot with a recharging slot is too far away from her house.

And, finally, “a long road” is about a man going to an Ikea store, choosing not to use the home delivery (because of the extremely expensive fees) and instead renting a car, knowing that he’ll have to manage his time very carefully, not having a parking lot available there.

**Use Case (0.40m)**

So we drew three use case diagram expressing the actions available to a USER (prima slide), like registration and login.

A SUPERVISOR (seconda slide), check car’s status, dispatch car recovery and dispatch recharge on site.

And, the user again that, being now registered, has access to different actions like looking for a car (entering his/her position or via a chosen address), reserving that car and so on.

**Class Diagram (0.30m)**

This is the class diagram, that summarizes all the previously exposed concepts: we have a reservation, that bounds car and user, the safe park slot with a power grid, that extends a normal parking lot, that is a part of a safe area.

**Alloy (0.40m)**

This is a run of our alloy code based on the Class Diagram we just saw.

We can clearly see a reservationDB containing 4 reservations, both active and expired, some users, linked to these reservations and some cars.

in this specific run all the cars are parked in different parking lots, all of them contained in the same safe area.

Another run, showed on the RASD document, shows in detail a more realistic world, like a not-parked car or a world with more than one safe area.

**~4.30 minuti fin qua**

**Schedule (1.40m)**

So, knowing that we’ll have to schedule our development (DI-VE-LOPMENT) in a six months’ timeframe, we divided our time in four phases, as you can see recapped here: Project Planning, RASD, DD and Development.

(SLIDE 2)

The project planning starts with a first meeting with the share and stake-holders, it proceeds with a developer’s roundtable that basically defines all the tasks deadlines and personnel’s assignments.

(SLIDE 3)

We then have the RASD part, concerning all the UML, ALLOY, MOCKUP, etc; ending with another stakeholders meeting, followed by a document revision based on their input and corrections.

(SLIDE 4)

The DD proceeds in a similar way, evolving all the topics covered in the DD document and, finally

(SLIDE 5)

We have the development, with code inspection, unit testing and integration testing, that

(SLIDE 6)

Includes test cases identification, the tools choices and the actual integration.

We then have some vulnerability and penetration testing, that allow us to present our internal alpha to the Stakeholders and then start with a pubilc beta, that will be improved thanks to the beta testers’ feedbacks and then released.

***Totale 6.10m/6.40m***