



# Power**En**Joy

Marco Festa, 03/02/2017

The background of the slide is split diagonally from the top-left to the bottom-right. The upper-left portion is white, and the lower-right portion is a solid blue color.

1.

## Design Decisions

## How did i make my **design** decisions ?

- ▶ Market analysis: competitors (car2go, enjoy, drivenow).
- ▶ Key is accessibility and simplicity.
- ▶ Differences with competitors: no parking mode, no physical key needed.

## User requirements

- ▶ Valid driving license document.
- ▶ Relatively recent smartphone device: to definitely replace the physical key (through the use of localization services).

## What did I **externalize** ?

- ▶ Maintenance service: reports are sent to an external company in charge to verify possible damages and responsibilities. They also provide cleaning and repairing services.
- ▶ PGS System: compatible PGSs are already deployed around the city, we just need to integrate our interfaces with them in order to use and track this shared network.
- ▶ Application Development: we propose an application general interface to interact with the application subsystem but leave the GUI and other components development to a third party software house.

## End-user experience

- ▶ Registration and login:

The screenshot shows a web browser window titled "PowerEnjoy" with the address bar displaying "http://powerenjoyit/registration/". The page features a blue circular logo with the word "ENJOY" and a smiley face. Below the logo are three buttons: "Home", "Login", and "Map". The main heading is "REGISTRATION". A "Registration data" section contains a form with the following fields and controls:

Firstname	<input type="text"/>	Lastname	<input type="text"/>
City	<input type="text"/>	Address	<input type="text"/>
CAP	<input type="text"/>	Date of Birth	<input type="text"/> / /
Email	<input type="text"/>	Confirm Email	<input type="text"/>
Licence ID	<input type="text"/>	Licence scan	<input type="button" value="Upload (.pdf, .jpeg)"/>
Card Number	<input type="text"/>	CVV	<input type="text"/>
Exp date	<input type="text"/> / /	<input type="button" value="Signup"/>	

Q



Map

LOGIN

Input L

Email

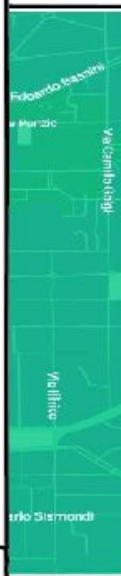
\_\_\_\_\_

Password

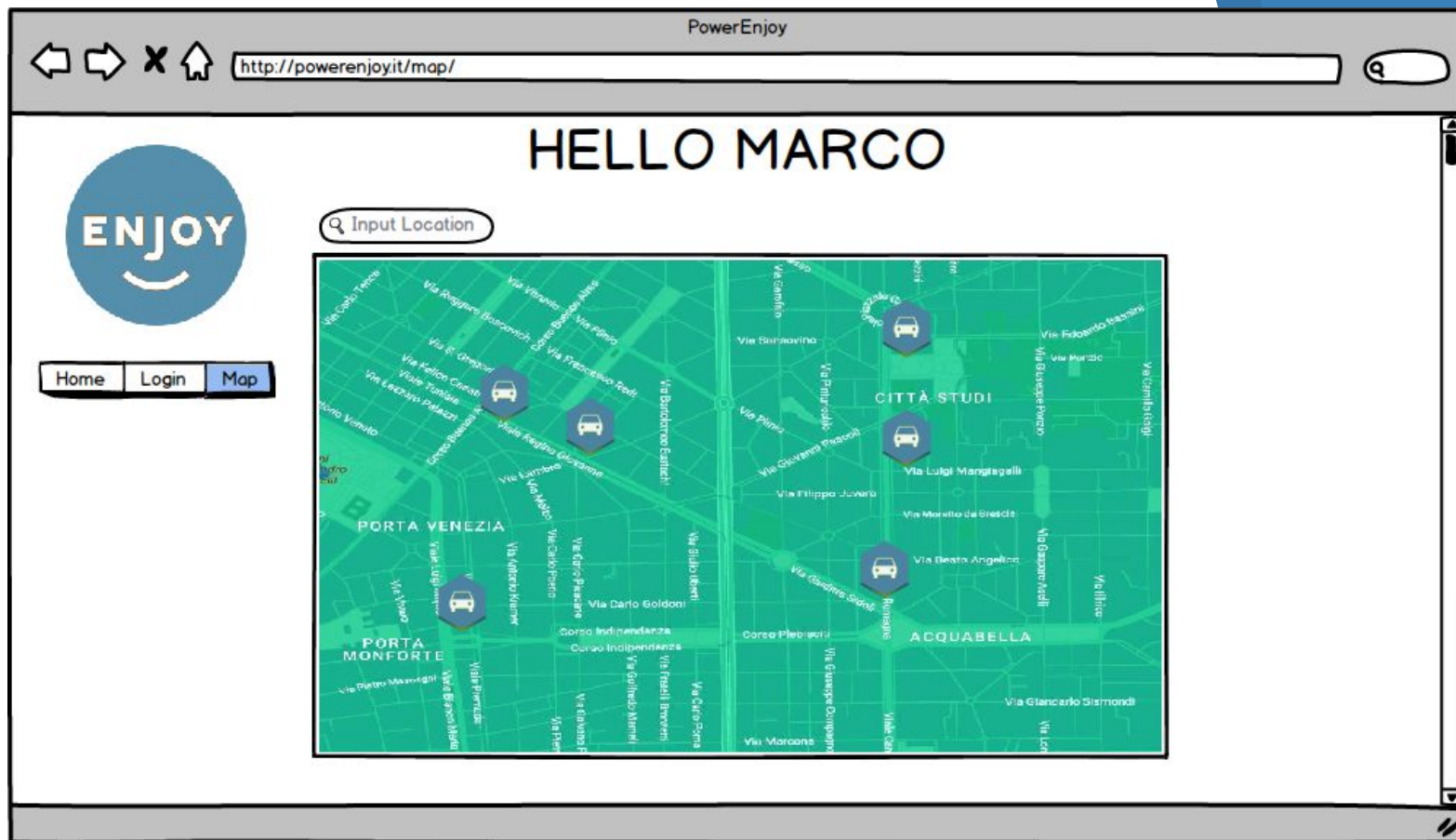
\_\_\_\_\_

[Recover Password](#)

Login



- ▶ Logged in and reservation pages:





[Home](#)[Login](#)[Map](#)

# HELLO MARCO

Choose your car !

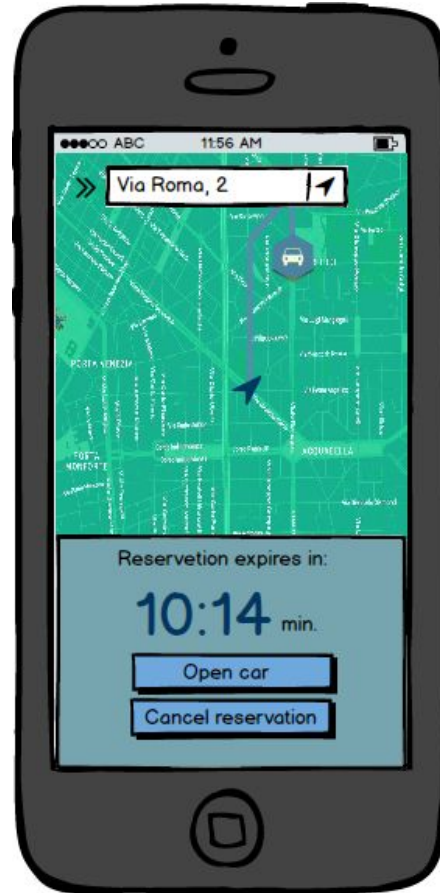


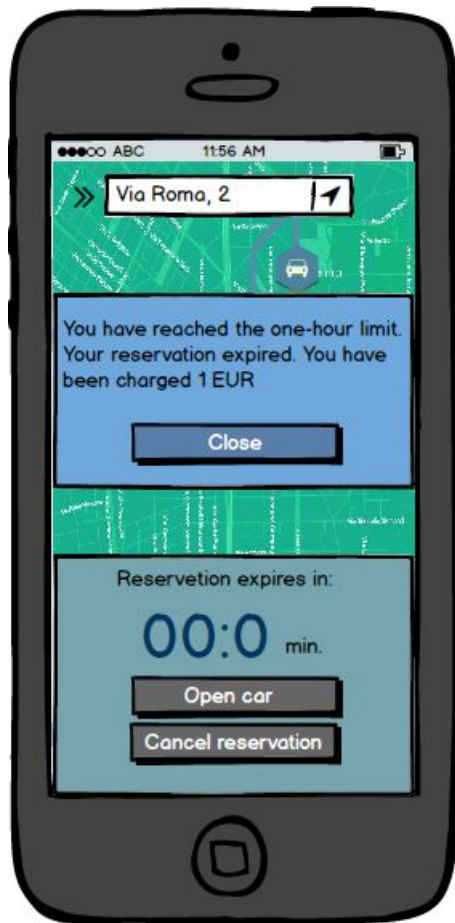
Address: Via Golgi 34, 20133 Milano

Battery:  Full

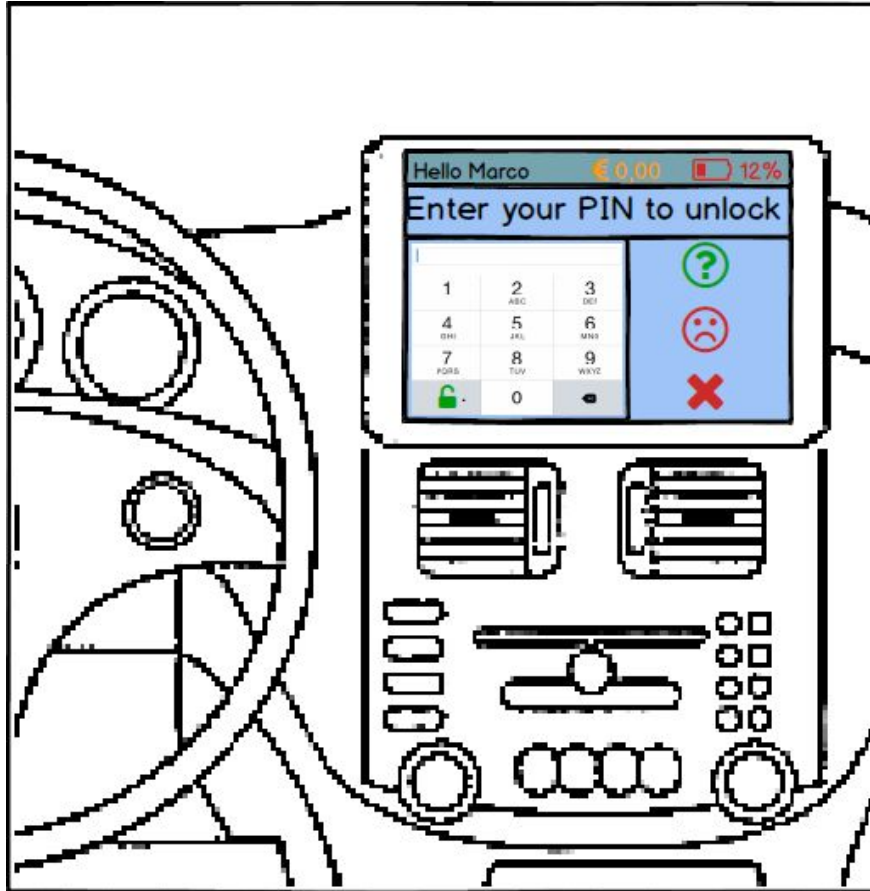
[Reserve](#)

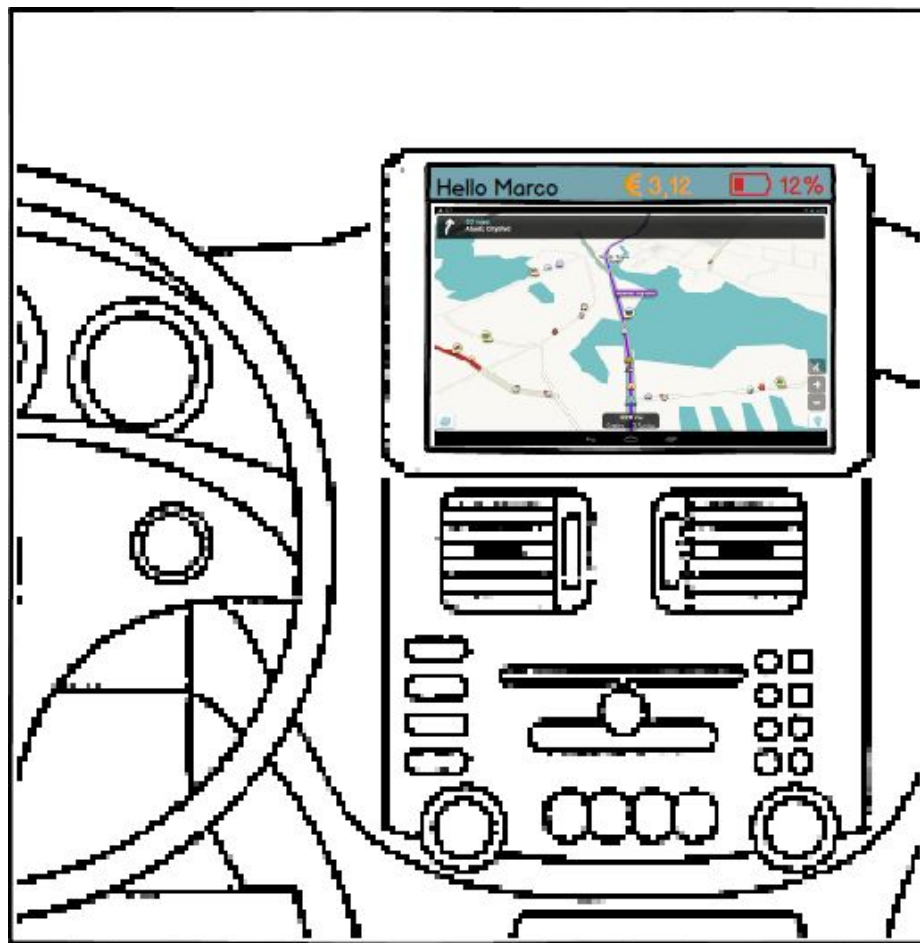
- ▶ Smartphone application:





- Car internal application:





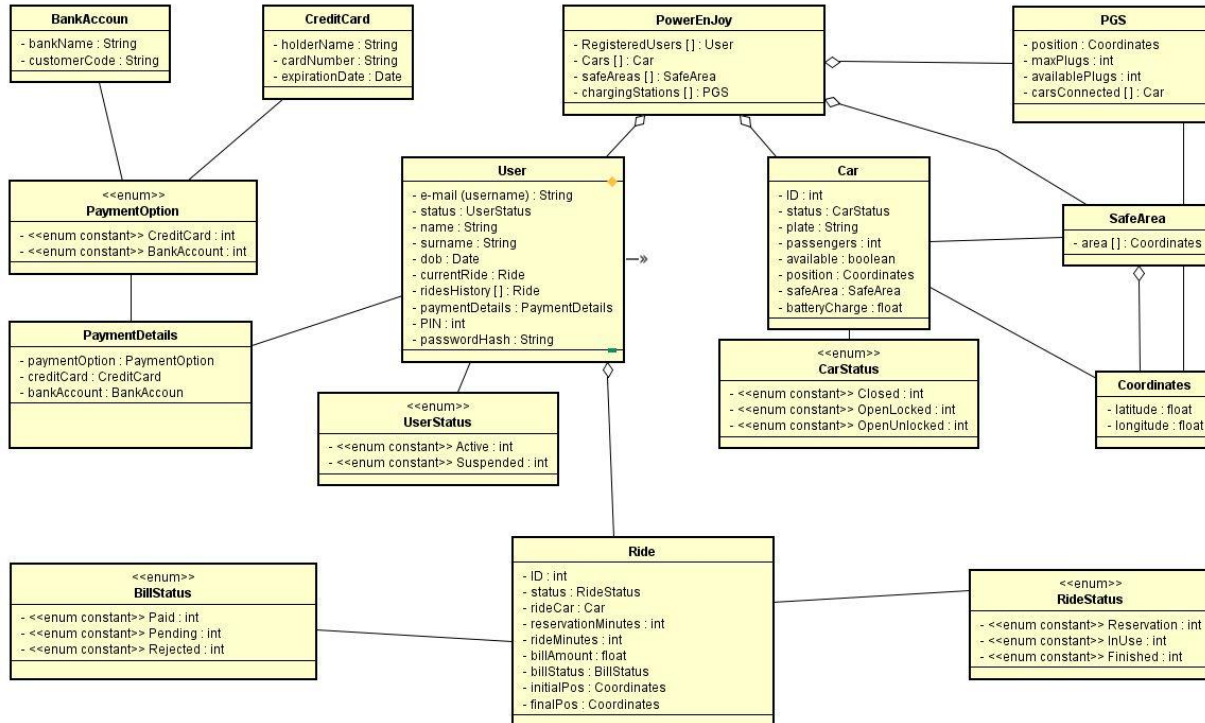
A large blue geometric shape, consisting of a triangle and a parallelogram, occupies the right side of the slide. The triangle is on the right, and the parallelogram is on the left, sharing a diagonal boundary.

# 2.

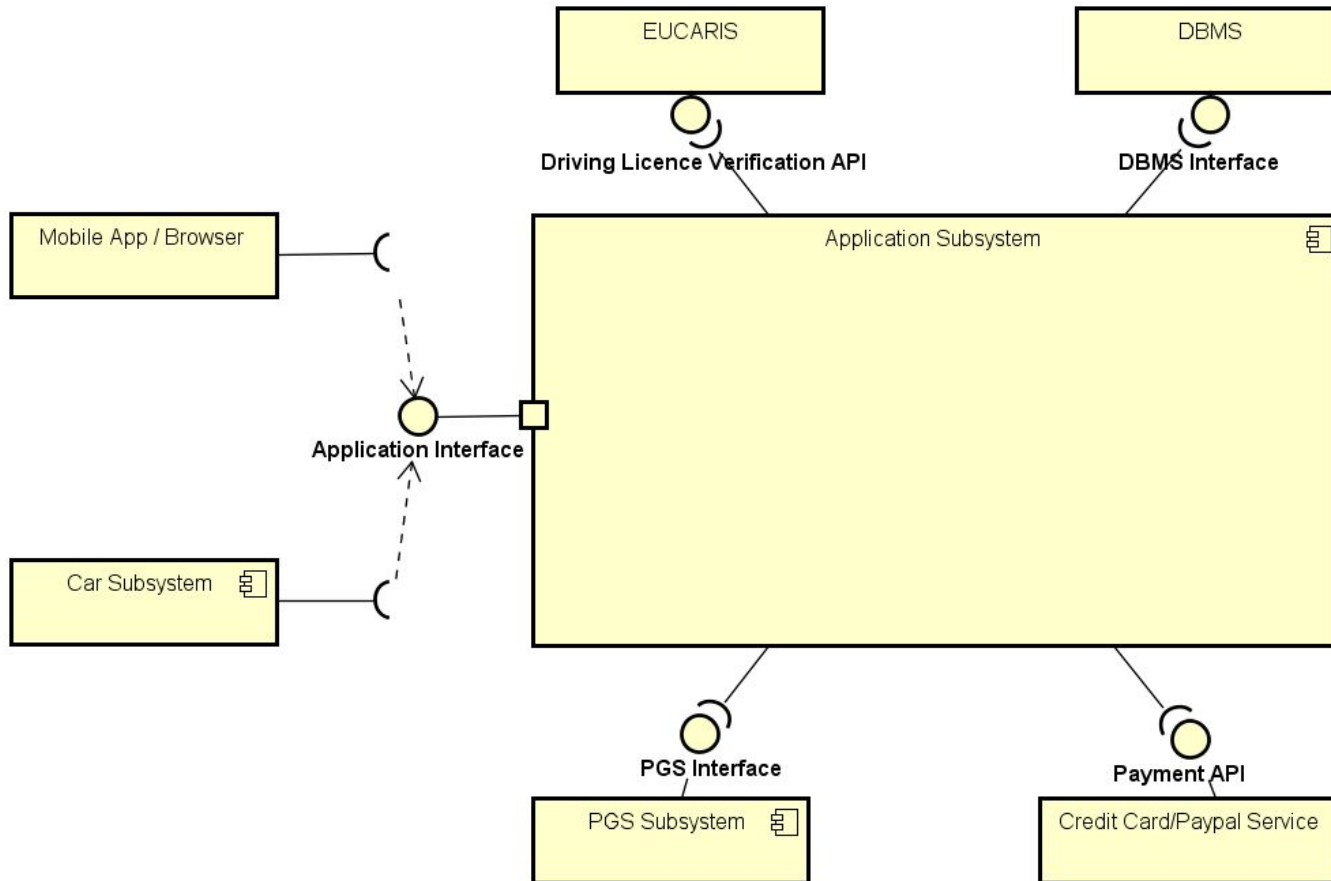
## Design Specifics

# How is the end-user experience achieved ?

## ► Data structure:

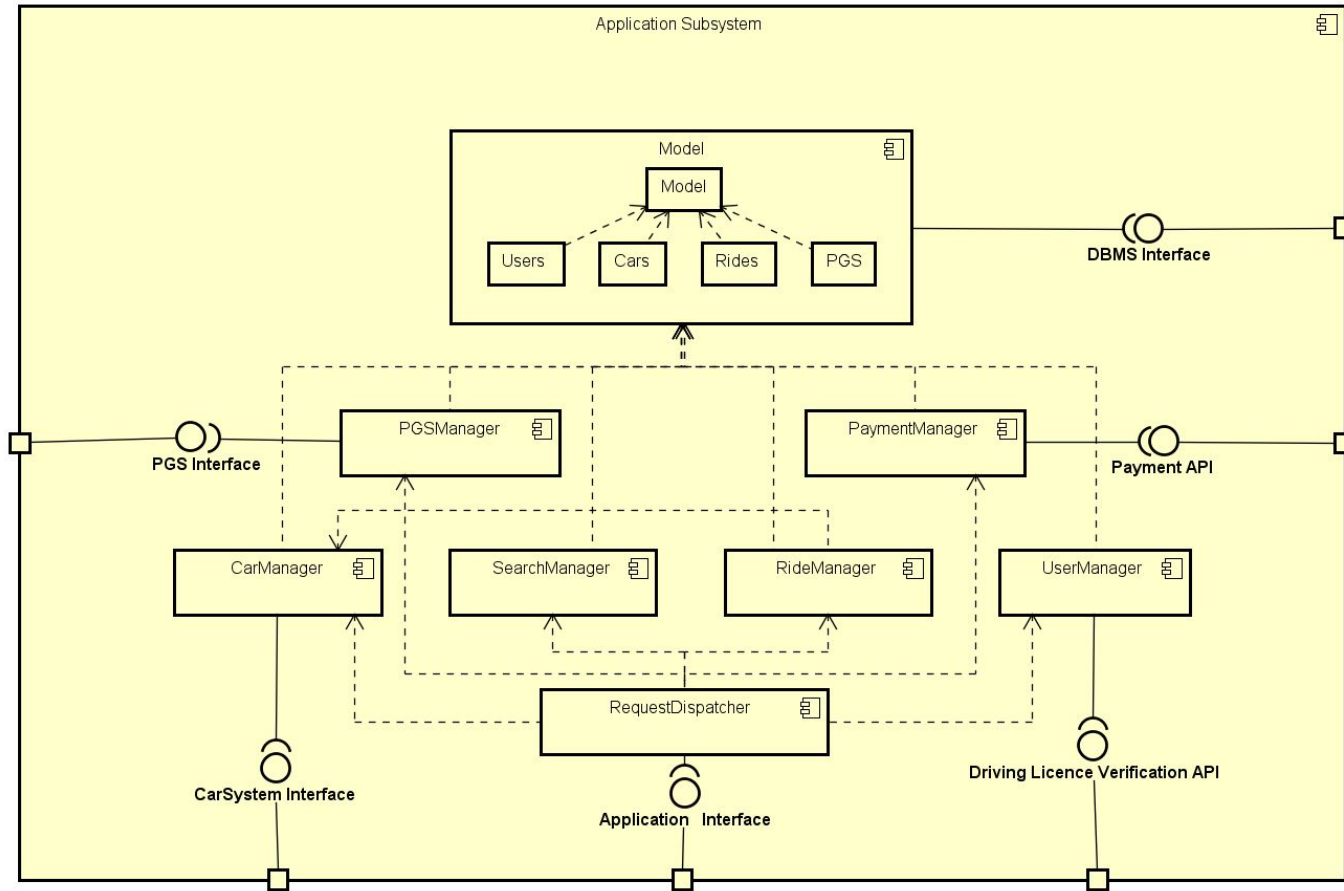


► Component view:

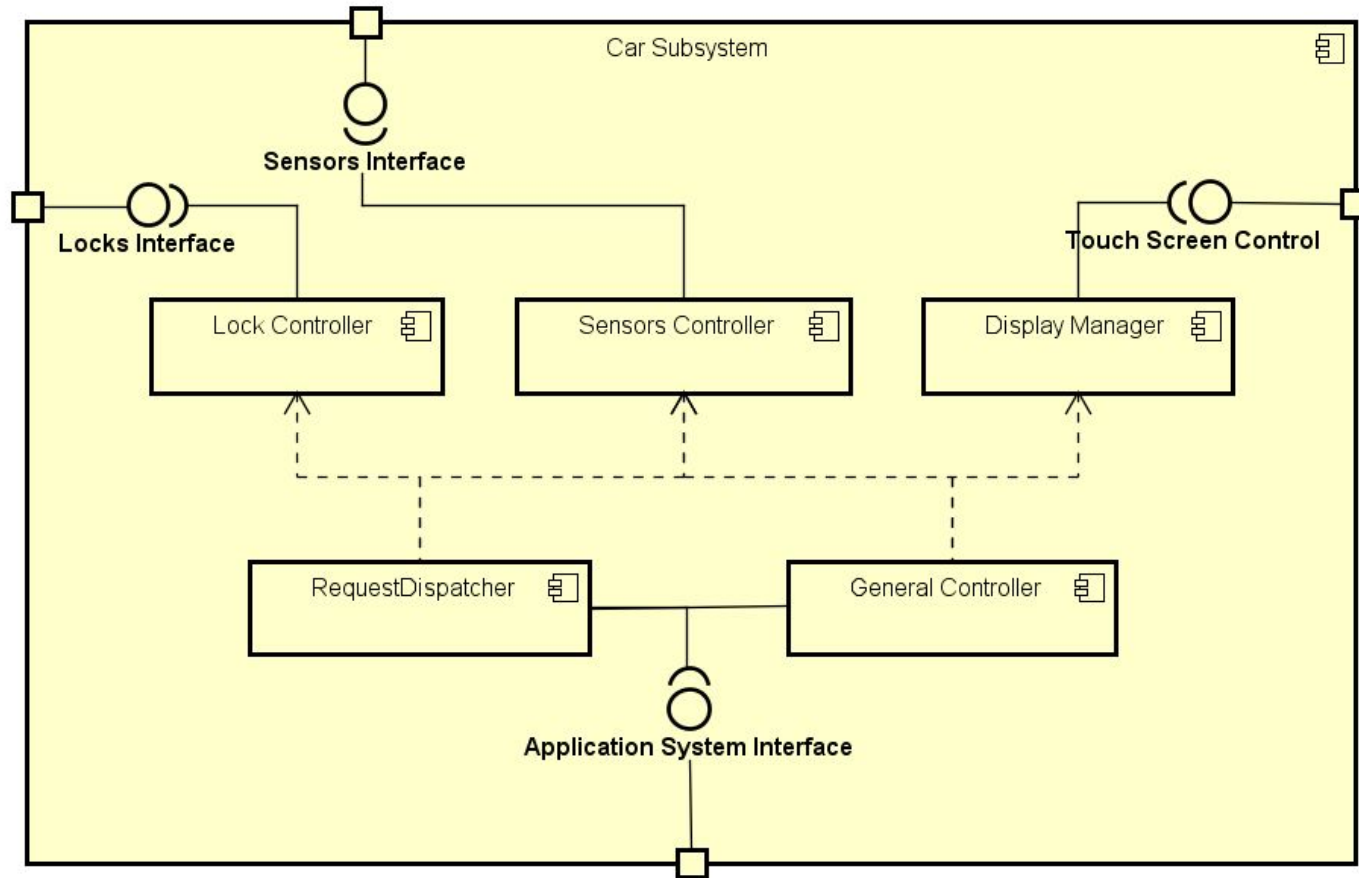




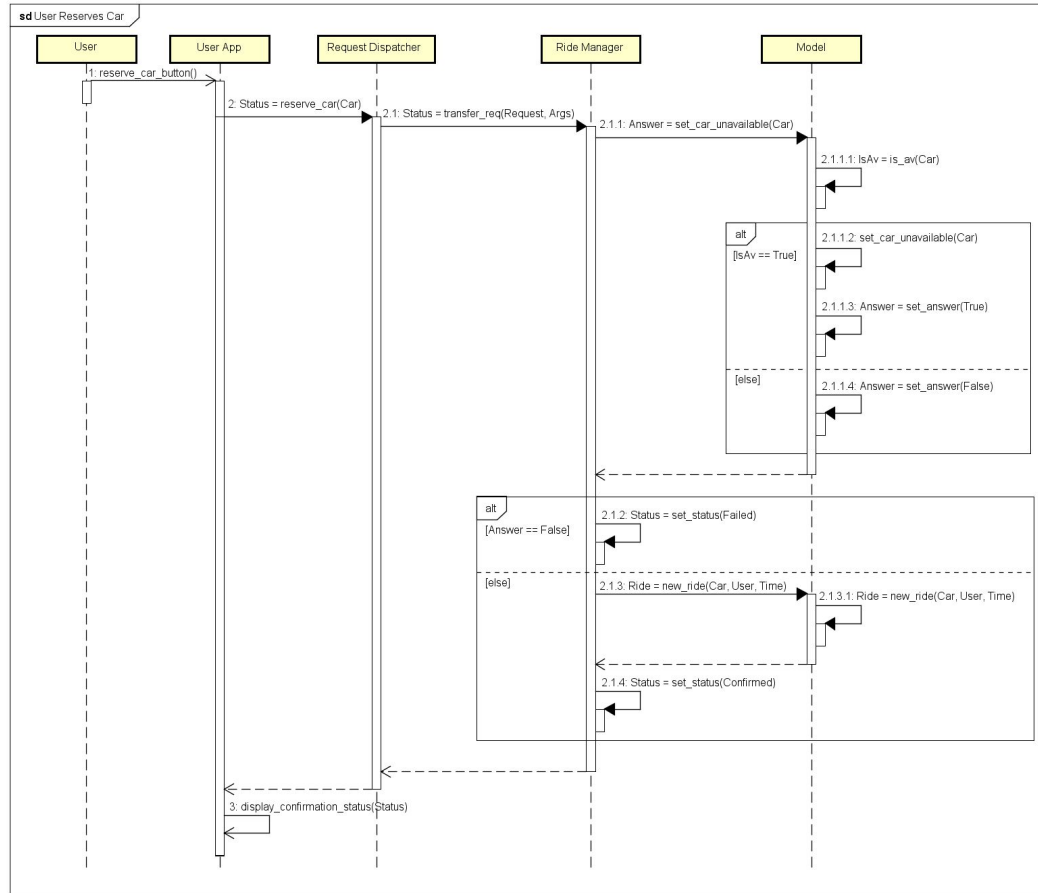
► Application Subsystem:



► Car Subsystem:



## ► Car reservation procedure:



## System architecture:



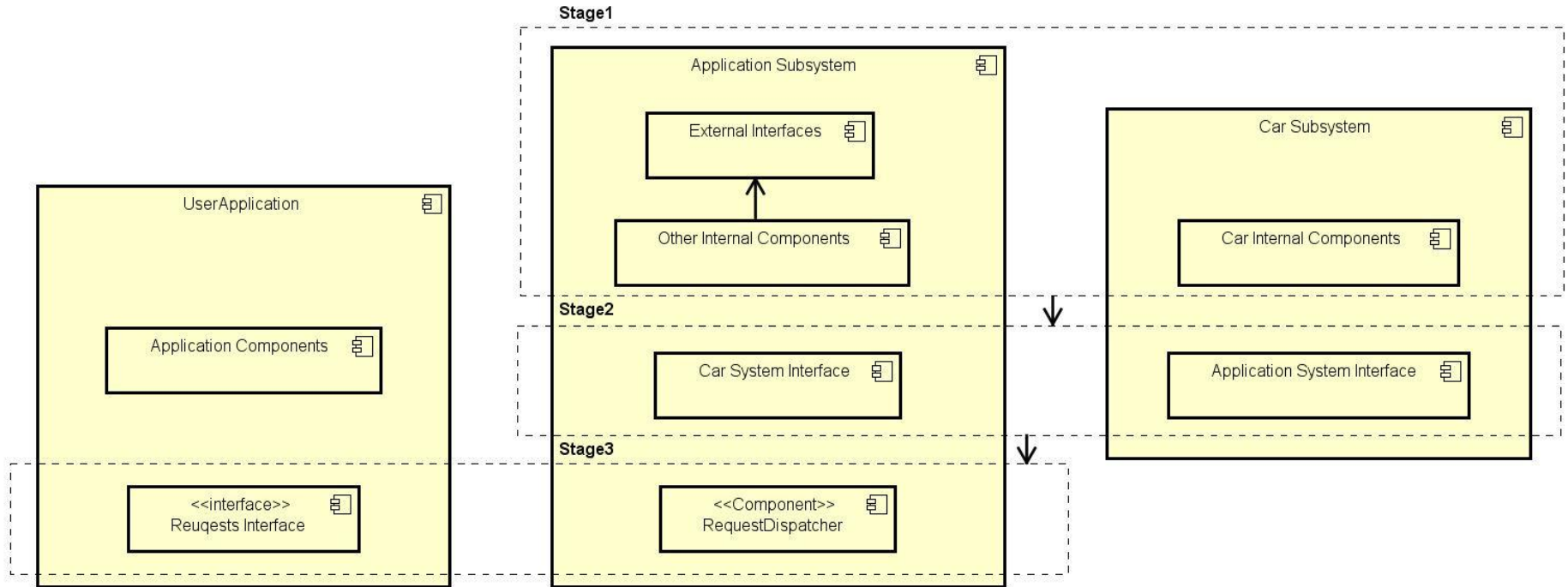
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# 3.

## Testing

# Integration strategy

- ▶ Bottom up approach:



## Drivers and stubs:

- ▶ PGS Manager Driver
- ▶ Car Manager Driver
- ▶ Search Manager Driver
- ▶ Ride Manager Driver
- ▶ Payment Interface Stub
- ▶ Request Dispatcher Driver

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# 4.

## Project Plan



## Size estimation

- ▶ Function points:

Function Type	FPs
Internal Logic Files	49
External Logic Files	15
External Inputs	35
External Outputs	23
External Inquiries	22
<b>Total</b>	<b>144</b>

$$\text{SLOC} = 45 \times 144 = 6480$$

## Effort estimation

- With the COCOMO II approach we derive a total time to develop (TDEV) of: 7.9 months



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**4.**

## Code Inspection