Finito

Finita mia parte, manca UML o JAVA

Da rileggere ed eventualmente sistemare

Devo fare del lavoro

# **Introduction**

This document extends the PowerEnjoy’s RASD document entering more deeply into the technical details.

This document is addressed to developers, aiming to explain the high level architecture, the main document’s components and how they interact with each other’s, the deployment cycle and the runtime behavior.

# **Scope**

PowerEnjoy is a service aimed to help people move around easier, without having to rely on their personal transport.

A secondary goal is to reduce cities’ pollution and noise.

The system allows users, after a registration where they insert their IDs and driving licenses, to rent a car (near their position (detected by using their smartphone’s GPS) or near a specific location, chosen on the map).

# **Definitions, acronyms, abbreviations**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*+ VEDERE RASD

# **Reference Documents**

# **Documents** **Structure**

# **2. Architectural Design**

**2.1 Overview**

PowerEnjoy has a three tier architecture, composed by a GUI .> APPLICATION -> DATA (insert disegno here sigh)

**2.2High Level Components and their interaction**

**2.3 Component View**

**2.4 Deployment View**

Inserire il deployment diagram con la paginetta su quali server si sono usati etc

**2.5 Runtime View (Sequence)**

Inserire I sequence con una breve descrizione

**2.6 Component interfaces**

**2.7 Selected architectural styles and patterns**

**2.8 other design decisions**

# **3. Algorithm Design**

Parte di JAVA

# **4. User Interface Design**

?? spiegare con il mockup?

# **5. Requirements Traceability**

* [Goal 1]: Ensure system’s accessibility
* [Goal 2]: Supervisors must be able to check cars’ status
* [Goal 3]: Supervisor should be able to dispatch ”recharge on site” correctly
* [Goal 4]: Supervisor should be able to dispatch ”car recovery” correctly
* [Goal 5]: Guarantee the correctness of each car’s ”availability state”
* [Goal 6]: Allow user to find available cars within a certain distance from a specified place
* [Goal 7]: Allow user to reserve a single car
* [Goal 8]: Discourage fake and too long reservation
* [Goal 9]: Allow the user who reserved the car to see information about his reservation
* [Goal 10]: Allow only the user who reserved the car (and his passenger) to access it
* [Goal 11]: Guarantee the correctness of the ”cost of the trip

3.2 Functional Requirements 3.2.1 Goals Goal ID G1 Goal Description Ensure system’s accessibility Goal Requirements • The system must prevent guests from accessing any service before being registered or logged in • The system must recognize already registered user • The system must allow new user’s registration • The system must allow user’s login • The system must check data correctness (including payment method validity) • If user is new and data are correct, system must provide a password to the user Goal ID G2 Goal Description Supervisors must be able to check cars’ status Goal Requirements • The system must be able to check every (car’s remaining power) • The system must be able to check every car’s position • The system must be able to check if a car is in use • The system must be able to check if a car is reserved • The system must be able to check every car’s ”availability state” • The system must be able to check how many passengers are in the cars • The system must be always able to communicate with each car • The system must keep the information of every car updated Goal ID G3 Goal Description Supervisor should be able to dispatch ”recharge on site” correctly Goal Requirements • The system must notify the supervisor if a car is left with less than 20% of the battery and is not plugged into a power grid 23 CHAPTER 3. SPECIFIC REQUIREMENTS Goal ID G4 Goal Description Supervisor should be able to dispatch ”car recovery” correctly Goal Requirements • The system must notify the supervisor if a car is left outside a safe area for more than 5 hours Goal ID G5 Goal Description Guarantee the correctness of each car’s ”availability state” Goal Requirements • The system must consider a car ”unavailable” if it has low battery (

# **6. Effort Spent**

Marco:

29/11: 6H (4 coop, 2 alone)

30/11: 5H (2 coop, 3 alone)

# **7. References**