

Politecnico di Milano, A.Y. 2016/2017
M.Sc. programme in Computer Science and Engineering
Software Engineering 2 Project

Requirement Analysis and Specification Document

Philippe Scorsolini,
Lorenzo Semeria,
Gabriele Vanoni

October 25, 2016

Contents

1	Introduction	3
1.1	Actors	3
1.2	Abbreviations, Definitions and Acronyms	3
1.3	Goals	3
1.4	Idea of the implementation	3
1.5	Etc	3

1 Introduction

PowerEnJoy is a car-sharing service that exclusively employs electric cars.

Users must have an account on the online platform to be able to access the service. It is possible via the mobile app or directly via a web browser to look for available cars within a certain distance from user current location (possibly tracked by GPS) or from a specified address. Once selected a car the user can book it for up to one hour before the picking up. Rates are calculated based on time spent driving and cars must be parked in pre-defined safe areas, some of which are prepared with power grids.

The management system encourages eco sustainability and best practices with a *bonus-malus* method. For examples there are discounts for car pooling and extra charges for users that park far from power grid stations or leave the battery very low.

1.1 Actors

1.2 Abbreviations, Definitions and Acronyms

- Gn: the n-th Goal
- Visitor: anyone visiting the website without being logged in
- User: anyone who registered on the website

1.3 Goals

List of goals for project PowerEnJoy:

- G1 Allow visitors to sign up
- G2 Show updated information on available cars
- G3 Allow Users to unlock a car
- G4 Allow Users to reserve a car
- G5 Reward well-behaved users
- G6 Allow System Administrator(s) to update informations

1.4 Idea of the implementation

A server will provide business logic and databases, sending dynamic web pages to the web app and answering the queries coming from the mobile app.

In particular the server and the web app will be implemented in JEE with a SQL relational database. The mobile app will be compatible with both Android and iOS. However other mobile platforms will be able to access services through web browser via the web app, that will have a mobile theme.

1.5 Etc