Politecnico di Milano
MSc Computer Science and Engineering

Software Engineering 2
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Integration Test Plan Document

PowerEnJoy

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1 Introduction

1.1 Revision History

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PowerEnJoy is the name of the system that has to be developed.

System sometimes called also *system-to-be*, represents the application that will be described and implemented. In particular, its structure and implementation will be explained in the following documents. People that will use the car-sharing service will interact with it, via some interfaces, in order to complete some operations (e.g.: reservation and renting).

Renting it is the act of picking-up an available car and of starting to drive.

Ride the event of picking-up a car, driving through the city and parking it. Every Ride is associated to a single user and to a single car.

Reservation it is the action of booking an available car.

Car a car is an electrical vehicle that will be used by a registered user.

Not Registered User indicates a person who hasn't registered to the system yet; for this reason he can't access to any of the offered function. The only possible action that he can carry out is the registration to get a personal account.

Registered User interacts with the system to use the sharing service. He has an account (which contains personal information, driving license number and payment data) that must be used to access to the application in order to exploit all the functionalities.

Employee it's a person who works for the company, whose main task is to plug into the power grid those cars that haven't been plugged in by the users. He is also in charge of taking care of the status of the cars and of moving the vehicles from a safe area to a charging area and vice versa if needed.

Safe Area indicates a set of parking lots where the users have to leave the car at the end of the rent; the set of the Safe Areas is pre-defined by the system management. These areas are spread all over the city.

Plug defines the electrical component that physically connects the car to the power grid.

Charging Area is a special *Safe Area* that also provides a certain number of plugs that connect the cars to the power grid in order to recharge the battery.

Registration the procedure that an unregistered user has to perform to become a registered user. At the end, the unregistered user will have an account. To complete this operation three different types of data are required: personal information, driving license number and payment info.

Search this functionality lets the registered user search for available cars within a certain range from his/her current position or from a specified address.

RASD is the acronym of *Requirements Analysis and Specification Document*

DD is the acronym of *Design Document*

ITPD is the acronym of *Integration Test Plan Document*

1.4 List of Reference Documents

- Project Assignments 2016-2017
- RASD v1.1
- DD v1.0

2 | Integration Strategy

2.1 Entry Criteria

2.2 Elements to be Integrated

2.3 Integration Test Strategy

2.4 Sequence of Component/Function Integration

2.4.1 Software Integration Sequence

2.4.2 Subsystem Integration Sequence

3 Individual Steps and Test Description

3.0.1 title

FROM → TO

method name	
Input	*Result*
First	First Description
Second	Second description

FROM → TO

method name	
Input	*Result*
First	First Description
Second	Second description

FROM → TO

method name	
Input	*Result*
First	First Description
Second	Second description

3.0.2 title2

FROM → TO

method name	
Input	*Result*
First	First Description
Second	Second description

FROM → TO

method name	
Input	*Result*
First	First Description
Second	Second description

4 | Tools and Test Equipment Required

5 | Program Stubs and Test Data Required

6 | Effort Spent