Politecnico di Milano

PowerEnjoy Service - Integration Test Plan Document

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Version 1.1

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1 Introduction

1.1 Revision History

This section records all revisions to the Document.

Version	Date	Authors	Summary
1.1	15/01/16	Domenico Favaro, Caio Zuliani, Matheus Fim	Initial Release

1.2 Purpose and Scope

The Integration Test Plan Document (ITPD) serves to present the integration sequence and testing for all Subsystems and Components that conform PowerEnjoy Car Sharing Service. This is a key part to guarantee the functioning and quality of the software. The Document will present the division of the System in Subsystems and Components that will endure individual testing as independent modules and then be subject to integration on the whole System.

1.3 Definitions and Abbreviations

- **RASD:** Reqirements And Specifications Document.
- **DD:** Design Document.
- **ITPD:** Integration Test Plan Document.
- **SDK:** Software Development Kit
- **App:** Application, refering to Web or Mobile App.
- **Subsystem:** Part of the system the generally encapsulates one or more features.
- **Component:** Self sustained part of the System that provides with functionalities and is part of one or more subsystems.
- **Mock:**Simulation that mimic the behavior of certain objects and fucntions in controlled ways, done to test the behavior of some other object.

For other concepts concerning the Service definition look in the **Glossary** section of the RASD and DD.

1.4 Reference Documents

- Specification Document: Assignments AA 2016-2017.pdf
- PowerEnjoy Requirements And Specifications Document (RASD)
- PowerEnjoy Design Document (DD)
- Example Document - Integration testing example document.pdf
- Testing Tools Documents:
  - Mockito
  - JMeter

2 Integration Strategy

2.1 Entry Criteria

We define the criteria that must be met before integration testing of the system components. We consider Integration a part of the production development. In order for production to start all documentation must first be written and up to date, including RASD and DD, to have a clear and full scope of the system components functionalities and importance. Once in production, the integration of a singe component can be done when the following criteria is met:

- The Component feature must be 100% complete, that is all classes and functions must have been implemented.
- No tickets must be opened for the Component, no bugs or cosidered missing features must be present.
- Individual component testing must have been performed, using JUnit to test its classes and functions.
- All the interfaces the Component has to communicate to have to be present or at least mocked to be able to test its coupling.

2.2 Elements to be Integrated

Identify the components to be integrated, refer to your design document to identify such components in a way that is consistent with your design.

2.3 Integration Testing Strategy

Describe the integration testing approach (top-down, bottom-up, functional groupings, etc.) and the rationale for the choosing that approach.

2.4 Sequence of Component/Function Integration

2.4.1 Software Integration Sequence

For each subsystem, identify the sequence in which the software components will be integrated within the subsystem; relate this sequence to any product features that are being build up.

2.4.2 Subsystem Integration Sequence

Identify the order in which subsystems will be integrated.

7 Effort Spent

Date	Domenico	Caio	Matheus
27/12/16	2h	2h	2h
28/12/16	-	-	-
29/12/16	1h	-	-
30/12/16	2h	-	-
31/12/16	-	-	-
01/01/17	-	-	-
02/01/17	2h	-	-
03/01/17	-	-	-
04/01/17	-	-	-
05/01/17	-	-	-
06/01/17	-	-	-
07/01/17	-	-	-
08/01/17	-	-	-
09/01/17	-	-	-
10/01/17	-	-	-
11/01/17	-	-	-
12/01/17	-	-	-
13/01/17	-	-	-
14/01/17	-	-	-

8 Changelog

As the project and design decisions may change during the development this document is also prone to change. We'll document every version in this part.

- **Version 1.1:** 15/01/2017